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Adults Aged 65+ and the Societal Pressure to Exercise

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Walden University
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Abstract

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MA, Walden University, 2014

BS, University of Phoenix, 2012

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Health Psychology

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Abstract

Globally, by 2050, the older adult population will be larger than other age segments of the population. Government programs and health care guidelines are being put in place to help encourage exercise. However, there is little information on how the societal pressure presented in these government programs makes people feel, especially those over the age of 65. The purpose of the present study was to understand what the societal pressure to exercise means to adults over the age of 65 using a qualitative, phenomenological approach and employing in-depth interviews using the health belief model as the guiding framework. The interview questions addressed areas surrounding knowledge held by older adults on exercise recommendations and the pressure to exercise, along with their feelings, their opinions toward exercise, exercise commercials, and exercise-related products, and how these views may have changed over the years. Seventeen older adults were interviewed with each interview lasting approximately 45 minutes. Data collected from these interviews were coded and examined for themes. The results showed that adults 65+ have mixed views on the societal pressure to exercise. The consensus was that while they felt that the societal pressure to exercise was good, the societal pressure messages were not meant for them. The information obtained from the present study supports positive social change by giving government officials and healthcare policymakers a better understanding of what exercise and pressuring older adults to exercise means, which will help the design of better interventions and programs, specifically for this portion of the population.

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Dedication

I dedicate this study to my loving husband, Jim Murphy, who endured much personal sacrifice so that I may have the time and ability to complete my work. Jim, …up to the sky! I also dedicate this study to my family and friends who believed much in me and gave me the strength to carry on. Finally, I dedicate this study to my two loving pups, Murph and Luca who always reminded me to take time for myself to play.

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I want to thank my committee chairperson, Dr. Stadtlander, for being the absolute best committee chair a student can hope for. Without her guidance, patience, and gentle nudging when needed, I would never have made the strides needed to complete such a wonderful and fulfilling journey. I would also like to thank my other committee members, Dr. Bonura and Dr. Wilson for their additional editing to make sure that my work was up to the best academic standards possible.

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I would like to thank the participants who took part in my study. Without them, this study would not have been possible. Finally, I would like to thank God. For through him all things are possible.

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Chapter 1: Introduction to the Study

Introduction

The world's population is aging at an alarming rate. There is an age shift that is going to happen by the year 2050, in which the older segment of the population will outnumber the younger segment for the first time in history (Berger, 2008; World Health Organization [WHO], 2012). This population shift will mean that it will be more important than ever before to address the health and well-being of those who are entering the 65+ age bracket. Poor health conditions in a major part of the population would bring about more stress on an already taxed healthcare system, which is a major concern for public health officials (Lee, Lan, & Yen, 2011). Governments programs have started to be set in place by government officials that will help address these concerns (e.g., Go4Life, Project Fit America). Private companies are also making changes to existing products to make Americans healthier. For example, Pepsi has the Mixify program, which promotes balancing the amounts of sugary soda drinks with exercise and better food choices. Fast food venues, such as McDonalds, have added healthy choices (e.g., salads) to their main menu and snacks (e.g., fresh fruit) to their kid meals.

More than ever, people of all ages are being encouraged to exercise or engage in some form of physical activity. Exercise has many known benefits. There is plenty of documentation on what keeps people from exercising as well as makes them stop once they have started exercising. Exercise and physical activity benefit all segments of the population and can be especially beneficial to those over the age of 65. Disease and illness are more detrimental and prevalent for older adults, which affects their quality of

life; for older adults, disease and illness move from being acute to becoming chronic (Heiby, Lukens, & Frank, 2005). Exercise for adults 65+ in age can help combat both mental and physical maladies that are common to growing older (Burr, Shephard, Cornish, Vatanparast, & Chilibeck, 2012; Clabby & Howarth, 2007). Exercise can help slow the aging process (Roundtree, 2010b).

While there is much information on the benefits of exercise and how exercise can help improve the well-being and independence of the older portion of the world's population, there is little to no information about how the pressure to exercise makes older adults feel. Knowing how older adults feel about the societal pressure to exercise would help policy makers understand how to make the act of exercising a routine part of older adults' lives. Eventually, the healthcare systems may have to take care of the oldest old, which are defined as frail and in need of medical attention and support (Neugarten, 1974: de labra, Guimaraes-Pinheiro, Maseda, Lorenzo, & Millan-Calenti, 2015); but building a healthy older population starting with those 65+ in age may delay the time when older adults need such care.

Background

What older adults do and how they treat their bodies can mean the difference between living independently or having to depend on someone to take care them. A healthy population is becoming a concern as the baby boomers (those born between 1946 and 1964) enter retirement age and turn 65 (Moody & Sasser, 2012). According to the United States Census Bureau (2011a), every fifth person will be 65+ of age by the year 2050. Furthermore, the Centurions (those reaching 100 years of age) will experience a

10% increase, making this portion of the population over three million in number (United Nations, 2012).

The American Heart Association (2014) recommends 150 minutes of moderate to vigorous exercise per week. Yet, many people either do not exercise or once they do, they fail to continue. Much documentation exists on why physically able people either do not exercise or fail to continue exercising (Harville, 2015; Horne & Tierney, 2012; Wilson, 2016; Yigiter, 2014). For certain older adults, a barrier may be simply not seeing sense in exercising anymore, as exercise does not assure one's immortality (Horne & Tierney, 2015). Other issues that older adults may face are lack of transport or the lack of the physical agility and strength needed to conduct even the simplest exercises (e.g., walking; Horne, Skelton, Speed, & Todd, 2013). Furthermore, older adults have a different perception of barriers to exercise than younger adults, and this perception also varies by the gender of the older adult. Moschny, Platen, Klaassen-Mielke, Trampisch, and Hinrichs (2011) reported that the most commonly reported barrier to exercise among older adults was poor health and that older men saw this as more of a barrier than older adult women did.

The concern for producing a healthy older population is increasing (Barnes & Schoenborn, 2012; Hsieh & Tsai, 2013). The aging process produces a variety of physical and mental maladies with which older adults must contend and which younger adults are exempt (e.g., muscle loss, bone density decreases). Older adults deal with decreases in physical and mental abilities that may affect their competence levels for the daily activities they need perform to remain self-sufficient and live independently in their

homes. Older adults hold and operate on a different age-related belief system than younger adults, and these beliefs can hinder exercise behaviors (Horne & Tierney, 2012). Age is a factor that can affect whether people exercise. Hudson, Day, and Oliver (2015) found that age was a significant factor in whether exercise was considered as a beneficial behavior or whether it was a testimony to older adults' physical declines.

Attitudes toward exercise can vary. Depending on the person's goals, one can take a positive attitude toward exercise (e.g., "keeps me healthy") or a negative attitude ("it is too hard for me to do"). Attitudes can be implicit or explicit. Implicit attitudes are naturally occurring attitudes toward something, whereas external cues guide the explicit attitudes that people form (Banting, Dimmock, & Lay, 2009). Concerning exercise behaviors, implicit attitudes had a stronger role in eliciting the exercising behavior (Hyde, Doerksen, Ribeiro, & Conroy, 2010). The act of exercising leads to positive implicit attitudes toward exercise (Calitri, Lowe, Eves, and Bennett (2009).

How people view themselves may affect which type of attitude is the stronger promoter for exercising. Banting, et al. (2009) discovered that people who considered themselves to be "exercisers" were influenced to exercise more through explicit attitudes and external cues. Therefore, it may be logical to conclude that older adults may not view themselves as "exercisers" and therefore, are not as strongly influenced by explicit attitudes formed from external cues as younger adults may be. Furthermore, the social pressure to exercise is an external cue, which older adults may choose to ignore because of some negative perceptions of exercise held by older adults (Hudson et al., 2015). Research has shown that positive implicit attitudes play a stronger role in enticing people

to exercise (Calitri, et al., 2009; Hyde et al., 2010). However, for the older adult who is experiencing natural physical declines because of the aging process, positive implicit attitudes may decrease, and negative implicit attitudes may increase, thus thwarting the behavior of exercising.

One aspect of implicit attitudes is that they can be altered (Hollands & Marteau, 2016; Hollands et al., 2011). The fact that implicit attitudes can be changed is important, especially if the societal pressure to exercise is ignored by the older population. Research shows how attitudes, both negative and positive, can affect exercise behaviors. However, there is a lack of research concerning what attitudes are held by people on the societal pressure to exercise, which is different than the behavior of exercising. Because the older population is quickly increasing in numbers (United Nations, 2012; United States Census Bureau, 2011a; United Census Bureau, 2011b; WHO, 2012), addressing how older adults (those 65+ in age) feel about the societal pressure to exercise needs to be explored.

My exploration regarding how older adults feel about the societal pressure to exercise can increase information regarding how to change negative implicit attitudes to positive implicit attitudes in older adults. A change from negative exercise attitudes to positive exercise attitudes would help build a healthier and independent older adult population. Furthermore, by understanding how the largest growing portion of the world's population feels about being pressured into exercise can give health agencies and policy makers the tools necessary to protect this segment of the population's well-being. The protection of the older population by keeping them as healthy and independent for as long as possible would also decrease the burden placed upon the healthcare system.

Problem Statement

The societal pressure to exercise is growing through governmental policies that are being put in place to build a healthier population. As the baby boomers enter retirement age, the concern for a healthy population increases as the world continues to age at an alarming rate (Barnes & Schoenborn, 2012; Hsieh & Tsai, 2013; McNaughton, Crawford, Ball, & Salmon, 2012). In this study, I addressed how older adults viewed the societal pressure to exercise.

Social pressure is an extrinsic factor that builds uniformity within a population which results in groups of people acting and behaving in the same manner (Chapelain et al., 2015). The pressure to conform can be imaginary or real and causes a change in behavior among the people perceiving the pressure (Battiston & Gamba, 2016; Deuker et al., 2013; Duo, Shen Zhao, & Gong, 2016). Without societal pressures, people may behave erratically, and there may be no moral grounds as to what would be considered right or wrong behaviors (Chapelain et al., 2015; Deuker et al., 2013; Park & Smith, 2007). Furthermore, society may also dictate what is acceptable behavior not only in public but also in private. That is, people are expected to act humanely toward others at all times. However, when it comes to developing what society sees as the normal behavior, the type of behavior may be an important factor itself as to whether it will be accepted as the "norm." For example, the behavior of spanking as a form of reprimanding was socially acceptable years ago. Currently it is not seen as the "norm" to reprimanding children. Exercise may be one such behavior.

The benefits of exercise are well documented, as are the barriers that keep people from exercising. As the world continues to age, understanding the benefits and barriers that are apropos to each population age segment is also important. For example, young adults may exercise for different reasons than older adults. Women may exercise for different reasons than men and young girls may exercise for different reasons than adult women. The same may be said for the societal pressure to exercise. People may have different perceptions of this pressure, and these perceptions may be the guiding factors to why or why not some people exercise. Older adults may not take the societal cue and heed the societal pressure to exercise because they do not see the sense of it due to their age and life experiences (Poobalan, Aucott, Clarke, & Smith, 2012). What may seem to be the norm in one area of the population segment may not be seen as appropriate for another population segment (Park & Smith, 2007).

Behaviors that were seen as normal behaviors for one era can change in another era. Globally, programs are being put in place to encourage people to exercise (e.g., Go4Life, Project Fit America). While these programs are there to help the population, there is still a question regarding how people feel about these programs and the pressure to exercise.

Purpose of the Study

The purpose of this phenomenological study using a qualitative approach was to understand the lived experiences of adults over the age of 65 and the societal pressure to exercise. In the present study I set out to explore the phenomenon of societal pressure to exercise with adults 65+ in age. The American Heart Association (2014), the United

States Department of Health and Human Services (HHS; 2008), and the World Health Organization (2004) propose that people engage in at least 150 minutes of moderate to vigorous exercise per week. This pressure may not produce the desired behavior, which is to entice people to exercise. Staying physically active and exercising is a staple of good health and well-being, especially in the later years when successful aging is a concern (Baltes & Baltes 1990; Rowe & Kahn, 1997). Understanding how the pressure to exercise affects the older population is important for better implementation of government programs designed to help build a healthier older population.

Research Questions

The overarching research question of this study centered on how people felt about the societal pressure to change a behavior. Societal pressures are used to develop what are acceptable and nonacceptable human behaviors. Societal pressure can also diminish existing behaviors (e.g. hitting a child as punishment) as well as create new behaviors as the normal, acceptable behaviors of a group (Chapelain et al., 2015). Social influence and social pressure are interchangeable terms (Thomas & Wilson, 2016). In the present study, social pressure refers to social influence. When it comes to changing a population's normal behaviors, social pressure influences people's intentions more so than conducting the behavior itself (Chen & Lai, 2014). By Chen and Lai's (2014) standard, this would mean that societal pressure would not help increase exercise behavior but may increase people's intention to exercise.

The first research question of this study was: (RQ1) "*How do older adults 65+ in age feel about the societal pressure to exercise?*" The second (RQ2) and third (RQ3)

research questions were: "*How do older adults feel about the public campaigns designed to increase exercise and make exercise the norm*," and "*how do older adults' opinions vary by decade of life toward exercise and or the societal pressure to exercise*?"

Theoretical Framework

A person's attitude, self-efficacy (confidence), and perceived threat (perceived negative attributes), and susceptibility (vulnerability to message) all play roles in whether or not a person will engage in certain behavior health behaviors. In the present study I sought to explore how older adults 65+ in age felt about the societal pressure to exercise. In the present study I used the health belief model (HBM) as the guiding framework. The HBM focuses on the perceived threats (e.g., illness severity or risk) and perceived benefits to performing health-related behaviors (Condelli, 1986; Rosenstock, 1974). The HBM is a model that is often used to explain preventative health behaviors (Bond, Aiken, & Somerville, 1992). With all the known health benefits of exercise, it becomes obvious that exercise can be included in the preventative health behaviors category. On a minimal basis, exercise has been known to reduce the risk of many diseases and help combat some psychological maladies as well (Burr, et al., 2012; Danielsson, Noras, Waern, & Carlsson, 2013; Heinzel, Lawrence, Kallies, Rapp, & Heissel, 2015; Perry & Bennett, 2006; Wise, 2010). Exercise also helps to maintain existing body functions to keep them running at optimal levels (Badics Wittmann, Rupp, Stabauer, & Zifko; Dusdal et al., Foulds, Bredin, Charlesworth, Ivey, & Warburton, 2014; Kim, Park, Lee, & Jeon, 2014, Roundtree, 2010a). Exercise keeps muscles strong and joints fluid, which is especially important for older adults who wish to remain independent and stay in their homes (de

Labra et al., 2015; Hulya, Sevi, Serap, & Ayse, 2015). As a person ages, cognitive and memory functions decrease (Berger, 2008). Exercise helps increase cognitive function and memory (Chan, Ho, Cheung, Albert, Chiu, & Lam, 2005; de Andrade, Gobbi, Coelho, Christofoletti, Riani Costa, & Stella, 2013; Debray, Biswas, Biswas, Saha, & Pal, 2015).

When it comes to keeping a population healthy, the leaders of society play a major role (Kunkel, Brown, & Whittington, 2014). It is through governmental and public health agencies that the messages of health promotion inform the general population and build a healthier society. However, the efforts of the public health agencies only work if people believe that there is a benefit in heeding these suggestions (Ronis, 1992).

Bond et al. (1992) found that age was a significant factor in health-related behavior adherence. I speculated that for the older adult, the societal pressure to exercise may not be justified, as they may not see a reason to exercise at the late stage of life that they are in or approaching. Older adults may be satisfied with their current health status and have accepted any bodily declines they are experiencing as the natural order of life and old age.

In the present study I sought to explore how older adults 65+ in age felt about the societal pressure to exercise by exploring the attitudes, perceptions, and general knowledge that older adults held about the social pressure to exercise. The main assumption made about the present study was that the perceptions held by older adults may play a significant role in whether they heed the societal pressure to exercise or if these adults felt that this societal pressure was directed at them. The literature on a

graying population, health literacy, what it means to age successfully, exercise recommendations, the benefits and barriers to exercising, attitudes toward exercise, and the societal pressure to exercise will be discussed in Chapter 2.

Nature of the Study

I used a qualitative method and a phenomenological design for this study. Phenomenological studies describe meanings people give to their experiences (Creswell, 2007; Giorgi, 2010; Roberts, 2013). The qualitative approach is the best approach when seeking to explore how people feel about a particular event, behavior, or phenomenon (Creswell, 2009). While quantitative researchers tend to look for how variances in one variable affect another variable, the qualitative researchers want to understand *how* variables play a role in causing certain behaviors (Maxwell, 2013). Qualitative inquiry often acts as people's voice to provide insight into the phenomenon under study (Creswell, 2009). My goal in this study was to understand how older adults' attitudes, feelings, and perspectives about the societal pressure to exercise affected (or not) their exercise behaviors.

I collected data for this study using interviews. I conducted the interviews using an interview guide with open-ended questions so that the same interview questions were asked in the same manner and in the same sequence as suggested by a former researcher (Patton, 2002). Open-ended questions allow participants to answer how they want and not by giving limited choices as leading questions do (Seidman, 2013). Because the participants answered each question in their words, the data collected offered a rich description of the phenomenon under study, which was the societal pressure to exercise.

When needed, I asked for clarification of words or sentences to keep the data as accurate as possible. I also held the reserve to probe any of the participants with additional questions to help provide a deeper explanation and truer sense of how the participants felt toward the societal pressure to exercise. A transcription of the interviews took place, and I looked for any similar word patterns in the data. I put the patterns into categories, coded to produce a logical order, and themes developed. I developed a code book that used the common emergent themes for further data analysis. According to Seidman (2013), organizing the data by using common threads found within the interviews is a conventional way to address the data.

Definitions

The terms in the present study were:

Exercise: This term means any form of deliberate physical movement that increases the heart rate with the objective to maintaining or increasing one's general physical fitness (CDC, 2015). It could be mild, such as a leisurely walk, to vigorous (running at full speed for short or long bursts), and any form of movement in between. In the present study, the term exercise is interchangeable with physical activity.

Older Adults: A person over the age of 65. The age of 65 signifies the start of entering into old age (Moody &Sasser, 2012).

Physical activity: this term means any form of energy burning movements that uses the skeletal muscles, which also includes exercising (WHO, 2016).

Successful aging: this term refers to good to high levels of physical, mental, and social functioning, the absence of disease and how well people adapt to normal aging

(Baltes & Baltes, 1990; Parslow, Lewis, & Nay, 2011; Rowe & Kahn, 1997, Strawbridge, Wallhagen, & Cohen, 2002).

Societal pressure to exercise: reflected in the weekly recommended 150 minutes of moderate to vigorous exercise set forth by the American Heart Association (2014), HHS (2008), and WHO (2010), as well as all the government programs, such as but not limited to, *Project Fit America* and *Go4Life,* set in place for the sole purpose of trying to entice people to move and exercise more (National Institute on Aging [NIA], 2015; Project Fit America, 2015).

Assumptions

In the present study I assumed that all the participants were truthful and answered the interview questions honestly. I also assumed that the participants were willing to participate in a study such as this and freely talked about their perceptions and feelings on the societal pressure to exercise. Other assumptions were that the participants were able to talk about their emotions, if any, that they may have had on the topic. In the present study I also assumed that there would have been enough participants to conduct the study and that recruitment would not have been a concern. Pennsylvania is home to approximately 17% of the United States' population which is 65 years of age and older (Unites States Census Bureau, n.d.), ranking it number five in the country (World Atlas, 2016). The rural area from which I recruited had ample amounts of venues from which participants can be recruited.

This study was unique in that in it I sought to understand how older adults felt about the pressure to exercise. Hence, it should be mentioned that because of their

advanced age, the pressure to exercise may not be noticed by certain portions of the older population (e.g., those 85+ in age). It is also important to note that physical shortcomings may be more prevalent in the older population, which could also mean that these adults also may not be affected by the societal pressure to exercise and, therefore, may not have any feelings toward this phenomenon. In the present study, I sought to include only the mentally healthy adults (e.g., void of depression, or severe cognitive disabilities) and therefore, would not be able to generalize to the whole geriatric population.

Scope and Delimitations

As noted in the above section, the scope of the present study was a rural area in Pennsylvania. This area was chosen because I live there. However, it should be noted that because of the chosen geographical area for this study, the results cannot be generalized to the populations that reside in urban geographical locations. In the present study I used adults over the age of 65 because of the growing concern of a rapidly aging population not only occurring in the United States but also occurring worldwide. Exercise is a health-promoting behavior and has been a topic of research in excess. With the population aging at an increasing rate, government agencies have been developing programs designed to entice people to exercise. Furthermore, public announcements and the media are also being used to entice people to exercise. However, research is lacking as to how the older population feels about being pressured to exercise through government programs and media campaigns.

The theoretical framework that guided this study was HBM. The central tenets of the HBM center around the perspectives and attitudes people hold on health promotion

and health-promoting behaviors, which made it suitable for the present study that sought to explore how people felt about being pressured into conducting the health-promoting behavior of exercising. A theoretical framework that will not be discussed in the present study is Fishbein and Ajzen's (1975) theory of planned behavior (TPB). Although the TPB is a good theory for a study such as this one, the focus of the TPB is more of the stages that people use right before they engage in a particular behavior. Because the present study's focus was not on engaging in a particular behavior but the pressure to do a specific behavior, the HBM was a better fit.

The participant criteria for this study were that they had to be over the age of 65 and not have a diagnosis of Alzheimer's disease, mild to severe dementia, or be mentally challenged. Any participant that had severe cognitive problems (e.g., Alzheimer's, Dementia, or mental retardation) was not eligible for participation in the present study. However, physical ability was not a factor that would initiate disqualification in the study. Any adult over the age of 65 who had limited physical ability because of illness (e.g. stroke or arthritis) or because of an accident was able to participate in the study. The inclusion of those older adults with physical problems added to the richness of the data and provided a deeper understanding of how pressuring people to exercise makes them feel. The present study had two participants that had some physical limitations. One 70-year old man had a bad heart, and bad knees, and an 83-year old man had a heart condition.

Limitations

The present study's limitations could occur from the participants that take part in the study. By nature, the state of Pennsylvania is predominately Caucasian (World Atlas, 2016). The counties being used in the present study are short of other cultures in that they follow the state's population makeup. Therefore, the participants were Caucasian, with little to no variance from other cultures (e.g., African American, Asian American, or Hispanic). Another possible limitation was the age factor. Only those adults 65+ in age would meet the criteria for participation in the present study. Therefore, the sample of participants that took part in the present study were of a homogenous group which meant that generalizability of the results to the whole population was also a limitation.

Because of the small rural area where this study took place, it was possible the recruitment process would elicit people who are friends of mine. If this happened, these people were not able to take part in the main study but may have taken part in the pilot study. To address the adequate sample size limitation, it was my intent to extend the parameters of the geographical area for recruitment, if needed, to address this potential limitation.

Researcher bias is probably the most common limitation to conducting research. Therefore, a journal was kept that contained my assumed views and feelings toward the phenomenon under study. I am an avid exerciser and a middle age woman. Therefore, I may have already started to build my personal attitudes and preconceptions toward the pressure to exercise to help me stay healthy and independent in my latter years. It was assumed that any personal biases that I have toward exercise or the societal pressure to

exercise will not influence the questions, responses or the participants in any way. I attempted to stay free of judgment. Every response was reported earnestly, and the conclusions drawn were honest.

Significance

The significance of the present study takes place several ways. First, while there is an abundance of literature on exercise, a gap exists on how people feel about being pressured into exercise by government programs and public health messages. Socially, these programs and messages may be trying to shift the general population from becoming predominantly sedentary population to an active population. As the population grays, the concern for a healthy older population becomes a great concern. Hence, these programs and messages are also directed at older adults. Secondly, how these adults feel about being pressured to change their health habits through exercise needs to be investigated so that healthcare organizations and policy makers can design programs that would be more palatable to older adults. Older adults have a different belief system than younger adults (Horne & Tierney, 2012), so understanding how pressuring them to change their exercise behaviors would add insight to building a healthier older population in the years to come.

By the year 2050, the older adult population will outnumber the younger adult population (WHO, 2012). Significant increases in the segment of the population that use healthcare services the most would be extra taxing on the healthcare system (Cruz-Jentoft & Rymaszewska, 2010; Iso-Ahola, 2013; Moody & Sasser, 2012; WHO, 2004; WHO, 2013). Money spent to house older adults that need assisted living care would be

phenomenal if the graying of the population problem is not addressed. Furthermore, the adult children population available to take care of their older parents is decreasing because of a lack of childbirths (Hamilton, Martin, Osterman, & Curtin, 2015; Martin, Hamilton, Osterman, Curtin, & Mathews, 2015). A lack of adult children caregivers would mean that the government would be responsible for the care of these older adults. Excessive strain on government resources could result in an increase in health insurance for the younger adult population or a depletion of government resources available to those who need them (e.g., poverty-stricken families).

Social change implications of the present study include giving the fastest growing segment of the population a voice in how it feels to be forced to change. By understanding how older adults perceive certain policies or programs designed to get them to be more active and exercise, it should become apparent to policy makers and interventionists where the weaknesses, if any, occur in these programs. As it stands the societal pressure poses a one-size-fits all type of policy geared to changing the whole population at once. However, what may become the "norm" for one segment of the population may not work for another segment. That is, the younger adult population may heed the pressure to exercise for they may have the perspective that their whole life is ahead of them. However, older adults, especially those over the age of 85, may not heed the societal pressure to exercise for they have a realistic view of their mortality, even with exercise as being a possible factor in increasing one's lifespan. The lifespan age goes up with every passing decade, and people are living well pass the age of 85 (United Nations,

2012). The social change of incorporating exercise as the normal part of one's life is more important now than ever as before as the world continues to gray.

Summary

The fast rate at which the world's population is graying is a primary concern of healthcare officials and government policy makers (Lee et al., 2011). With a shift in the population occurring, the purpose of this chapter was to discuss the importance of understanding how pressuring this portion of the population into exercising either helps or hinders the building of a healthier older population. In this chapter I discussed the backgrounds on the population shift as well as how the pressure to exercise is being incorporated through government programs and health organizations and how incorporating the behavior of exercise as the norm may be conceptualized differently by older adults. The older population may have different views on what it means to grow older successfully than the policy makers who set up programs that elicit the behavior of engaging in exercise as a routine to one's daily life.

Successful aging has been defined as being absent from disease and illness (Rowe & Kahn, 1997). However, this definition may not apply to everyone; people are living much longer than before, even with disease and illnesses because of medical breakthroughs in pharmacology and better understandings of disease and illness itself. Furthermore, survival is not as physically demanding or threatening as it was eras ago, which also adds to increases in lifespan. Attitudes play a significant role in the behaviors that people have.

Relevant articles on how attitudes will include information on how attitudes can change over time and or be changed through external cues, such as pressures from society to conform and thus make a particular behavior become the norm. It is important to realize that not all people may hold the same attitudes toward events, situations or certain behaviors. Also, people of different cultures and age brackets may have different perceptions of a situation that leads them to build varying attitudes of the same behaviors, situations, or in the case of this study, policies that pressure people into exercising.

Chapter 2 discussed the relevant studies on the benefits and barriers of exercise, the role of attitudes has with behaviors and successful aging, as well as societal pressure to conform to certain behaviors. The literature also provided studies that support the use of the theoretical framework of the present study. Chapter 3 laid out how the present study recruited participants, collected data, trustworthy issues and ethical concerns and strategies that addressed any potential problems. Chapter 4 gave an analysis of the collected data from participant responses to interview questions and what the results of the data analysis are suggesting. Chapter 5 summarized the findings to build a discussion of what conducting the present study meant.

Chapter 2: Literature Review

Introduction

The world's population is aging at an alarming rate. Global aging is a growing concern among policymakers and public health officials (Lee et al., 2011). In the United States, this increase in the older population segment is exacerbated as the baby boomers (those born from 1946 to 1964) start to turn 65 years of age (Moody & Sasser, 2012). The population projections for the year 2050 show that those 65 and older will substantially outnumber other age segments of the population (WHO, 2012). The 2050 projections also indicate that one out of every five people will be over the age of 65 (United States Census Bureau, 2011b), and for the first time in history this would mean the geriatric population will substantially outnumber the younger population (Berger, 2008). In addition to this surge, with the aid of technology and medicine, people are living much longer than ever before. By the year 2050, the projected increase of those living to the age of 100+ will increase approximately 10%, jumping from 343,000 in 2009 to 3.2 million by 2050 (United Nations, 2012).

In many areas of the world, the birth rates are down, which also adds to the imbalance of the population segments. In the United States alone, the birth rate dropped approximately 1% from 2012 to 2013, which has been the trend since 2007. The 2014 preliminary results are showing a slight increase, this still leaves a major gap in births needed to become the would-be future caregivers of the older population (Hamilton et al., 2015; Martin et al., 2015). In other areas of the world, infant mortality rates may be higher than normal due to environmental factors such as those found in third-world

countries (World Bank, 2016; WHO, 2013). Such an imbalance can cause future problems for the increasing older population (Aboulafia-Brakha, Suchecki, Gouveia-Paulino, Nitrini, & Ptak, 2014; Liu, Guo, & Bern-Klug, 2013). For example, for many families, the younger generations become the caretakers for the older family members. In Asian countries, it is not uncommon for several generations to live under one roof and for the younger occupants to care for the older ones (Liu, et al., 2013)

A decrease in births can mean no future family caregivers of aging family members. Illness and disease become more prevalent as people age, making the older generations the largest users of health care professionals and systems (Cruz-Jentoft & Rymaszewska, 2010; WHO 2013). In old age, illness often moves from being acute to chronic (Heiby et al., 2005), and chronic illness affects the quality of life of the older population. When there is such an imbalance in the population like the one being projected, the need to create a healthy, active, and independent older population becomes apparent. A healthy, vibrant, and self-maintaining older population will be less taxing on health care systems that may already be exhausted from carrying the burden of the ill and disabled (Iso-Ahola, 2013; Moody & Sasser, 2012; WHO, 2004). One way to help increase the well-being of a population, especially older adults, is through physical activity and exercise.

There is little doubt that exercise is beneficial to the human body; both young and old alike can benefit from exercise. The most obvious benefit is physical fitness and weight management. It has been established that exercise also reduces the risk of certain diseases such as cardiovascular disease (Perry & Bennett, 2006; Wise, 2010), and

diabetes (Chen & Land, 1986; Gillibrand & Stevenson, 2006; Solhi et al., 2010). Exercise can help build physical strength by increasing muscle mass (Badics, Wittmann, Rupp, Stabauer, & Zifko, 2002; Kim, Park, Lee, & Jeon, 2014), elevate moods (Clabby & Howarth, 2007), and increase one's body image perceptions, which in turn may lead to more self-esteem (Tiggemann & Williamson, 2000).

In the older population, exercise can help slow the aging processes that take place in the human body (Rountree, 2010b), increase self-efficacy (McAuley et al., 2010), decrease pain associated with arthritis (Burr, et al., 2012), and help treat bone fractures that are common in old age (Dusdal et al., 2010). However, to know the benefits of exercise is one thing; to be informed as to what is a proper amount of exercise, is another. The recommended amount of exercise and or moderate physical activity for adults is 150 minutes per week (American Heart Association, 2014). While this may seem unattainable or too much in the context of time management, 150 minutes per week equates to less than 1 hour three times per week. It can also be broken down to 30 minutes 5 days a week or roughly as little as 20 minutes for 7 days a week. With all the known benefits of staying active and or exercising, still almost half of the American population does not meet the recommended weekly requirements (Centers for Disease Control and Prevention [CDC], 2015).

Government programs, such as *Project Fit America* and *Go4Life,* have been put in place to entice people to exercise as well as increase their physical activity levels (National Institute on Aging, 2015; Project Fit America, 2015). Major business staples such as McDonalds and Pepsi have joined in the campaign to build a healthy population.

McDonalds changed their menu to provide healthier food choices such as salads and fruit as a snack for their kids' meals. Pepsi's *Mixify* commercial campaign targets people, mostly youth, to be aware of the type of food and quantity of food consumed and to balance this with physical activities such as exercise or sports. The promotion of physical activity has also been circulating the public message to exercise for all ages of the population (Brown et al., 2012; Leavy, Bull, Rosenberg, & Bauman, 2011; Maddock, Silbanuz, & Reger-Nash, 2008).

The concern for producing a healthy older population has reached international proportions as many countries try to address the well-being of their increasing older populations. England has developed physical activity plans for communities to use to help promote physical activity (El Ansari & Lovell, 2009). Other campaigns can be found in countries such as New Zealand, Belgium, Australia, Columbia, and Brazil.as well as the United States (Leavy et al., 2011).

As the world ages, concerns arise as to how to keep the aging population healthy, to provide a better quality of life for their later years (CDC, 2012). The Office of Disease Prevention and Health Promotion has provided, free to Americans, guidelines to physical activity, and has a special section for older adults (Health.gov., 2008). The basic idea of these national campaigns is to promote exercise and physical activity so that it may become a way of life and more than just a passing trend (El Ansari & Lovell, 2009).

Attitudinal research places the focus on the act of exercising itself (Guess, 2012; Lascar et al., 2014). There is little to no research on the societal pressure to exercise. More important, as the world's older population increases, understanding what this

pressure to exercise means to older adults may become a useable measure to keep this segment of the population interested in exercise and physical activity.

In this study I sought to explore how attitudes about the pressure to exercise may influence or discourage the older population's engagement in exercise and physical activity by identifying the attitudes that the older population has toward being reminded through public health messages, media campaigns, government programs, and physicians' recommendations to exercise. People's attitudes are often the determining factor in whether they accept a phenomenon or take part in an activity (Kruglanski et al., 2015). The present study may act as a voice for the older population about what the frequent reminders (in this study, termed pressure) mean to them, which could provide deeper insight to the trials and tribulations of what it means to grow older in today's society. This study can also serve as a gateway to understanding just how much societal pressure to change works or does not work for the older adult population. It may be that for the older population, the pressure to change may act more as a barrier to the wanted change than for other segments of the population. The older population knows that their bodies are not what they used to be. The constant reminder to exercise may create negative attitudes toward exercise, physical activity, and the campaigns and government programs developed to encourage more exercise and physical activity. The constant reminder may become self-defeating in this segment of the population, and no change in exercise may occur.

As older adults become aware of the programs to help encourage exercise, they may engage more in exercise to promote better well-being, especially if these programs

are age-specific. Knowledge of the benefits of even minimal efforts of exercise may entice older adults to engage in exercise and or physical activities. Hence, the pressure to exercise may feel more like a gentle push than "pressure."

Policymakers and health officials can use information regarding what the pressure to exercise means to older adults to help entice the older population to engage in physical activity and exercise by proposing subtler messages specially geared to the older adult population. The findings from this study may support the importance of increasing public messages geared specifically to the older population as a way to better inform older adults of the benefits of exercise and physical activity, even in minimal amounts. This, in turn, can be a way to increase their quality of life. A better quality of life for the older population may mean longer independence and less chronic illness or disease.

In Chapter 2 I will give a synopsis of the search terms used in the literature review. I will use a theoretical framework to guide the current study using the HBM. In the literature review, I will provide an in-depth exploration of the background of social pressures, behavior changes, and attitudes toward these changes.

Literature Search Strategy

I used the following databases for this literature review: Academic Search Complete, Google Scholar, PUBMED, Thoreau, and WorldCat along with citation tracking. I used the following terms to conduct the search: *exercise, physical activity, old age, older adults, men, women, gender perspectives and or differences, attitudes and exercise or physical activity, body image, self-efficacy, exercise, physical activity benefits, and barriers, aging and disease, motivation, behavior motivation, aging*

successfully, *successful aging*, *aging well*, *lifespan, life span, life expectancy*, *subjective norm, societal pressure, social conformity, social desirability, conformity, and social networks, social convention, societal norms, social marketing, societal behavioral changes,* and *group think.*

Theoretical Framework

How a person feels about an activity, situation, or phenomenon can determine his or her behavior in doing the activity (Kruglanski et al., 2015). For example, if someone has strong attitudes regarding a thin physique this attitude will influence the individual to obtain this goal through exercise. However, if the goal is to be healthy, but the person holds a negative attitude toward exercise, then it is probable that exercise behaviors will not be considered. One of the oldest ideas surrounding behavior motivations is that self-efficacy affects people's choices in behaviors; that is, if people think they can perform the act, they are more apt to engage in the act and vice versa (Bandura, 1982).

Andersen, Andersen, Muurholm, and Roessler (2014) found that in order for people to engage in health counseling behaviors, they have to believe in their ability to motivate themselves as well as have a defined objective in mind. Furthermore, Anderson et al. indicated that external support was also an important factor in whether the health behavior change continued (i.e. seeking health counseling). Lack of social and family support caused participants to quit counseling.

How people see themselves may also influence their behaviors. Rennie, Harris, and Webb (2014) examined a variable of personal perspective as a motivational factor. The authors reported that health-related behavioral change is more apt to take place when

people visualize themselves successfully doing the behavior. People are more likely to stop an undesirable behavior, such as smoking, when they visualized themselves as a nonsmoker. A study on images supported this finding. People who used images as a social comparison (an existing prototype image of person performing behavior), and who had high considerations of future consequences (possible self-image) increased their exercise behaviors (Ouellette, Hessling, Gibbons, Reiss-Bergan, & Gerrard, 2005).

As the population ages, general well-being, quality of life, and health-related behaviors are fast becoming the focus of research (Barnes & Schoenborn, 2012; Hsieh & Tsai, 2013; McNaughton et al., 2012). Social cognitive models are common to research in health psychology as well as other disciplines. The HBM is one of the most commonly used models in health-related literature because it provides a structured model for researchers to investigate certain variables linked with health, health-seeking behaviors, and health-related behaviors (Becker et al., 1978; Condelli, 1986; Ogden, 2003; Ronis, 1992). The HBM was originally developed as part of a government report to understand why people will forgo health screenings and extended to gain a better understanding of why and what conditions are necessary for people to take actions to protect their health (Hochbaum, 1958; Rosenstock, 1966). Exercise falls on the health-seeking behavioral continuum, whereas reminders to exercise through public messages and government campaigns cover general health and health-related behaviors.

The basic idea of the HBM is that perceived benefits and perceived health threats are the guiding factors to engaging in health-related behaviors (Condelli, 1986; Rosenstock, 1974). Bond, et al. (1992) described the HBM as a model designed to

explain preventive health behaviors, of which exercise and or physical activeness can be a part. It has been well documented that exercise has many physical and psychological benefits (Foulds et al., 2014; O'Connor, Rousseau, & Maki, 2004; Mason & Holt, 2012). Exercise has been associated with mitigating the risk of a myriad of diseases and illnesses. On a minimal basis, exercise has been shown to reduce cardiovascular disease (Perry & Bennett, 2006; Wise, 2010), combat depression (Danielsson et al., 2013; Heinzel, Lawrence, Kallies, Rapp, & Heissel, 2015), and reduce weight and abdominal circumference (Ross, Hudson, Stotz, & Lam, 2015; Wadden et al., 2011). Exercise has also been reported to increase memory retention and cognitive function (Chan, et al., 2015; de Andrade et al., 2013; Debray et al., 2015), and help combat arthritis and pain (Burr et al., 2012; Dogu, Sirzai, Yilmaz, Polat, & Kuran, 2013; Lee, Hale, Hemingway, & Woolridge, 2012).

For the older population, exercise and PA have been linked to slowing the aging process (Harvard Medical School, 2014; Heller & Sorensen, 2013; Zhang & Wang, 2015), and helps to keep older adults agile and mobile by keeping their joints fluid and their muscles strong (de Labra et al., 2015; Hulya et al., 2015). Society plays an important role in the prevention of disease and health promotion through efforts made by public health agencies and with increasing health literacy (Kunkel et al., 2014). However, if people believe that taking a preventive action will not make a difference, they are less likely to engage in the preventive health-related behavior (Ronis, 1992). The same may be said of the societal pressures placed on people. In this case, if the general belief among the older population is that exercise bears no difference, it stands to reason that the same

may be thought of the societal pressure to exercise. That is, this population may ignore the media campaigns and governmental programs that promote exercising.

Moody and Sasser (2012) define aged population as young-old (65-74), old-old (75-84), and oldest-old (85+). Older adults, especially the oldest old, which are defined by Neugarten (1974) and de Labra et al. (2015) as frail, in need of medical attention and support and in poor health and who are over the age of 85 (Berger, 2010; Lucas-Carrasco, Laidlaw, & Power, 2011), may fail to see the benefits of exercise (Horne et al., 2013; Hudson et al., 2015). This lack of exercise may be due to their beliefs about aging and beliefs that the public campaigns are not meant for them.

Since age is a factor that affects adherence to health-related regimens (Bond et al., 1992), it stands to reason that age would play a role in the attitudes held toward the public campaigns reminding people to become more physically active and or to exercise. The four basic tenets of the HBM are a person's perceived risk to a disease, severity (threat) of an illness or disease, benefits, and costs of the health-related behavior (Becker et al., 1978; Rosenstock, 1974). These factors have been shown to be the main determinants to whether people will engage in preventive health behaviors or follow the recommendations to having good health (Rosenstock, 1974, Harrison, Mullen, & Green, 1992; Hsieh & Tsai, 2013).

Researchers have consistently used the HBM to explore experiences of certain illnesses as well as adhering to positive health-care behaviors. Gillibrand and Stevenson (2006) used an extended version of the health belief model (EHBM) that included variables such as internal locus of control and social support as predictors to diabetic

adherence regimes. Other research on breast self-examination behaviors applied the constructs of the HBM to explore the likelihood of breast self-examinations (Abolfotah et al., 2015; Bryan, 2001) and Pap smear tests for cervical cancer screenings (Pirzadeh & Amidi, 2012; Guvenc, Akyuz, & Açikel, 2010). Prevention can extend further than from the view of illness. The HBM has been used to predict other preventive behaviors such as condom and seatbelt use (D'Souza, Zyngier, Robinson, Schlotterlein, & Sullivan-Mort, 2011) as well as oral health (Solhi, Zadeh, Seraj, & Zadeh, 2010). A meta-analysis of the HBM completed by Ogden (2003) included, but is not limited to, behaviors such as sugar restriction, safety helmet use, hormone replacement therapy, using sun cream, following low-fat diets, smoking and ecstasy use; such a range of topics contributes to the HBM being one of the most widely used models for exploring preventive health behaviors.

Cost-Benefit Principle. In the present study I sought to address older adults' (65+ in age) perceptions of the societal pressure instilled from public messages and healthcare policy makers to exercise. The HBM has been linked to the adherence of certain self-care behaviors such as preventive dental health visits and the managing of diabetes (Chen & Land, 1986; Gillibrand & Stevenson, 2006; Solhi et al., 2010). Exercise is a type of self-care and following the normal recommendations for exercise as proposed by public messages depends on the subjective views held by the individual toward the costs and benefits of the behavior. In short, an increased cost trumps benefits (Chen & Land, 1986; Pirzadeh & Amidi, 2012). Mass media campaigns and government public messages are ways to educate the public on a broad basis.

For individuals toward the end of the age continuum, the pressure to exercise may be ignored because the older a person becomes, the less likely they may see the need to exercise because the aging process is happening regardless and his or her life will eventually cease. In short, some older adults may just experience fatigue that will affect their attitudes toward exercise as well as their physical activity levels (Egerton, Helbostad, Stensvoid, & Chastin, 2016). Therefore, in line with the cost-benefit principles of the HBM, the older a person becomes, the more age-related fatigue may be present and the more *the pressure to exercise* can result in an imbalance of the benefit-cost principle of exercise with the cost (fatigue) outweighing the benefits (physical adeptness). Therefore, and because of this imbalance, for the older population, it may be that no amount of public messaging or campaigns would change these previously held ideas.

Perceived Threat, Severity, Susceptibility, and Self-Efficacy. Knowledge is a powerful tool and with knowledge, certain behaviors may occur. The health objective of public health officials, government wellness programs, as well as the messages presented in mass media campaigns is designed to increase certain behaviors and change others (D'Souza et al., 2011). One's perceived susceptibility to a health-related situation (e.g., unwanted pregnancy), disease or illness plays a major role in whether people will change their health behaviors. Montanaro and Bryan (2014) manipulated the constructs of the HBM by increasing participants' knowledge base to try and facilitate condom use in young adults. The results suggested that the constructs that predict one's *intentions to change current behaviors* are different from the constructs that predict one's behaviors.

Attitudes and self-efficacy were more likely to affect one's intentions, whereas perceived susceptibility and severity of illnesses were more likely to affect one's behaviors. However, the results also showed that the manipulation of perceived susceptibility through increased knowledge is not effective in bringing about *behavioral change.* Conversely, Pirzadeh and Amidi (2012) found that increasing education about a suggested health procedure was successful in eliciting increased participation in cervical cancer screenings.

The pressure to exercise may produce additional psychological stress for the older individual through perceived lack of self-efficacy. Older individuals may view the pressure to exercise as a reminder of how much their bodies are changing and of the physical restraints, which age is causing (e.g., loss of strength, skeletal pain, and restricted movements). For example, additional psychological stress posed by pressure to exercise may cause older adults to spiral downward into depression, which may lead to the individual ignoring the exercising and physical activity media campaigns and public health messages. However, if the attitude of the aging individual takes the stance of mitigating the aging process for as long as possible, then he or she may readily accept the societal pressure to engage in exercise. Consistent with the HBM, those who see the aging process as a threat should heed the recommendations proposed by the government programs and mass media campaigns to mitigate the severity of the perceived threat. Aging is a natural phenomenon that is not stoppable, but some of its effects can be prolonged or even softened (Barnes & Schoenborn, 2012).

Cues to Action. Since the model's development, research has suggested expanding the variables examined to include others that may be key factors in determining a person's health-related behaviors. Cues to action, both internal (physical state) and external (relationship influence and mass media announcements and or campaigns) have been added as determinants of engagement in health-related behaviors (Becker et al., 1978; Harrison et al., 1992; Solhi et al., 2010). Cues to action have been defined as "stimulations which facilitate decision-making" (Solhi et al., 2010, p. 115), and mass media campaigns are representative of an external cue (Chen & Land, 1986; D'Souza et al., 2011; Solhi et al., 2010). In the current study, is the assumption that mass media campaigns can be representative of the societal pressure to exercise, which is an external cue. Gillibrand and Stevenson (2006) found that cues to action, both internal and external, played a vital role in self-monitoring and diet adherence in people with diabetes. Likewise, advertising campaigns about vaccinations helped to influence young girls to take the human papillomavirus (HPV) vaccine to help prevent cervical cancer (D'Souza et al., 2011).

Self-efficacy in performing the behavior (Heiby et al., 2005), as well as subjective norms (Condelli, 1986) are also additions to the list of variables that better explain engagement of preventive and health-related behaviors. The HBM has been described as a value-expectancy theory (Hsieh & Tsai, 2013; Rosenstock, 1974). Value expectancy makes the assumption that behaviors are the outcomes of the subjective value people place on the result of said behavior (Rosenstock, 1974). The pressure to exercise is a recommendation, as is the physical activity guidelines set by government agencies and

healthcare policy makers. The HBM makes the assumption that one's beliefs are a guiding factor in health behavior, and this extends to beliefs on following recommendations (Hsieh & Tsai, 2013). In other words, if people do not think that following the recommended "pressure" proposed by media campaigns and public health agencies to exercise will change anything (e.g., has no subjective value), then they are likely to ignore the recommendation. Furthermore, if the person does not think he or she will be adequate in performing the recommended behaviors, then the messages to change may be ignored. In the present study I sought to explore, not exercise per se, but the pressure (proposed societal norm) to exercise making the subjective norm variable an important one as well as any existing variables posited by the HBM. It is quite possible that this study may discover a new variable that may further help to expand the HBM and explain why or why not people engage in preventive health-related behaviors on a deeper level.

Literature Review

The concept of the pressure to exercise is centered on how a person's health beliefs either influence or deter health-related behaviors. The HBM, as proposed by its name, addresses one's health beliefs as influenced by illness threat, susceptibility and or level of severity of illness, barriers and benefits, cues to action, as well as societal influences (Abolfotouh, et al., 2015; Becker et al., 1978; Condelli, 1986; D'Souza et al., 2011; Gillibrand & Stevenson, 2006; Harrison et al., 1992; Montanaro & Bryan, 2014). The intention of this study was to describe the common experiences of older adults about the pressure to exercise as guided by a framework of their beliefs about the phenomenon.

In short, in this study I sought to describe how older adults define, experience and feel about the societal pressure to exercise using the constructs of the HBM.

Using the shared lived experiences of people to help give meaning to a phenomenon was first conceptualized by the German philosopher, Edward Hursell (1859-1958) for only those who have experienced the phenomenon can give a true insight as to what it means (Giorgi, 2010; Roberts, 2013). Husserl believed that understanding the meanings people give to their experiences was a way to help the discipline of psychology become a well-rounded and authentic science (Giorgi, 2010). Furthermore, Walsh (2015) posited that the qualitative methods used in phenomenological investigation help to give science a human touch by moving away from quantifying numbers and exploring the feelings, thoughts, and beliefs of people about experienced phenomena. A phenomenological investigation is "about searching for meanings and essences of the experience" (Roberts, 2013).

The focus of this study is to gain insight as to how the societal pressure to exercise affects older adults. More specifically, to investigate, analyze and help to define, possibly on a universal level, what the subjective norm of the *pressure to exercise* means to older adults. Also, to explore if the societal norm solicited by government programs, healthcare policy makers, and mass media campaigns to increase one's physical activity and or exercise engagement either facilitates engaging in exercise or PA, acts as a barrier, or has a neutral effect on exercising and PA in older adults.

Aging is a normal part of the human lifespan; cognitions change during this lifespan, and these cognitions also affect how older adults view certain behaviors and the

attitudes they have toward these behaviors (Gerstorf, Ram, Lindenberger, & Smith, 2013). Young adults may view the societal pressure to exercise as positive, whereas, older adults may think of it more as an annoyance. Furthermore, older adults may be more cognitively accepting of how their body is changing and view this as normal, whereas, Im et al. (2011) suggested that for young adults, the societal pressure to be thin is felt more. Furthermore, genetics and other internal factors may increase one's negative beliefs on the performance of the exercise or PA. For example, in older adults, pain or fear of injury can be a deterrent (Austrian, Kerns, & Carrington-Reid, 2015; Petursdottir, Arnadottir, & Halldorsdottir, 2010). For obese individuals, body image and ability (stamina) can act as a barrier (Guess, 2012). Certain demographic variables may also influence whether or not a person engages in a health-related behavior (Condelli, 1986). For example, neighborhood design and lack of time because of family caregiving responsibilities were reported as deterrents to exercising (Im, et al., 2011).

The attitudes people have early in life toward certain life events may change with age. Scott, Poulin, and Silver's (2013) study on how age affects attitudes toward terrorism found that older adults showed less fear of future attacks than their younger cohorts. The aging process is inevitable, and for the older adult, the physical changes they experience, because of aging, may be viewed as the normal path to growing old. In other words, the attitudes people have toward aging and life events can change as they grow older (Miche, Eisasser, Schilling, & Wahl, 2014; Scott et al., 2013).

Concerns of a Graying Population

Globally, the human population is graying at a relatively fast rate, and the rate that the population is graying is a main concern among health officials (Kunkel et al., 2014; Lee et al., 2011). Globally, by the year 2050, the population over the age of 65 will be much greater than those under the age of 65 (WHO, 2012). The United States Census Bureau (2011b), projects that every fifth person will be over the age of 65 in the year 2050. In the year 2050, those living past the age of 100 will have increased by 10% from the year 2009 and is projected to have reached over three million in number (United Nations, 2012). The graying population concern is compounded by the increased infant mortality rates of third-world and some developing countries; the decreased birth rates of developed countries and the sudden aging of those born between 1946 and 1965, known as the baby boomer generation (Hamilton et al., 2015; Martin et al., 2015; Moody & Sasser, 2012). Kunkel and colleagues (2014) posed aging as a "new, powerful social force - never seen before in human history" (p. 19) and believe that because the world is connected through technology people are able to see and experience aging abroad. That is, how other cultures view and experience the graying phenomenon that is happening throughout the world. The technology connection helps people realize their commonalities when it comes to aging, and also offers insights to how other cultures are addressing the problem of a graying population.

A graying population not only taxes the healthcare systems, but also affects the workforce, family structure, and alters the burden of disease from acute to chronic illness. In old age, there are less infectious diseases and more chronic illnesses that interfere with

the daily activities needed to live a good quality of life (Heiby et al., 2011). Many older adults choose to still work instead of retiring, which makes the job market very competitive. Other older adults become the caregivers of grandchildren. Yet others move in with their children to be cared for by their children, which can lead to several generations under one roof. Caring for older members in the same household stresses the family unit financially, physically, and psychologically (Aboulafia-Brakha et al., 2014; Liu et al., 2013). Many young adult caregivers neglect their own health when taking care of their elder parents. Psychological stress often occurs in these same situations as it is often hard to watch the demise of a love one and or have constant patience with a parent suffering with Alzheimer's or some form of cognitive defect. Unless the elder has established a sufficient nest egg that the family caregiver can draw from, the added costs associated with caring for the parent can take a toll on the family's finances (e.g., food, clothing, and special needs such as ramps or medical equipment).

Health Literacy. Population aging, such as what is currently occurring in the United States and throughout the world, is an incentive to produce new trends geared to help society change for the good of the population. In short, acknowledging that having more aged people than younger in a population presents future problems with regards to long-term care for these individuals. Policy makers and health officials need to set in place programs that enlighten and encourage people to engage in better self-care, no matter what age the person is. Increased health literacy is one way to promote better self-care, especially in the graying sector; taking control of one's health may be empowering, but for the older population may not be realistic (Kunkel et al., 2014). Physical and

cognitive decline can interfere with one's ability to care for themselves, as well as certain societal expectations and financial limitations (Moody & Sasser, 2012). Good health is vital to everyone. However, for a graying population, good health is problematic and is a growing concern for every society (Kunkel et al., 2014).

Among other factors, staying physically active, even into old age, is one way to maintain good health. Since for the older adult even the smallest amounts of exercise can be beneficial, public messages reminding the older adults to get up and move may be warranted in an increasingly graying world. It may be true that most people want to be healthy later in life, but the question remains, is all the health-promoting actions taken to ensure good health enough? For the older population, especially the oldest old, when does health-promotion through exercise become not important or non-existent? The fact remains that no amount of exercise or health-building behaviors ensures immortality – like aging, death is inevitable.

Technology and medical advances have helped increase the average life expectancy around the world. In America alone, in 1960 the average life expectancy was 69.77 years, whereas in 2013 the average life expectancy was 78.84 (World Bank, 2016). This is not to be confused with a person's life span for life spans can be much higher (Moody & Sasser, 2012). It is not unusual for people today to live well into their 90s, with some reaching 100+ years of age. The segment of the United States population living to 90 and 100+ in years had the largest population increases from 2009 to 2011 (U.S. Census Bureau, 2012). Those reaching centurion status in 2012 was approximately 343,000 and this number is expected to climb to well over three million by 2050 (United

Nations, 2013). Moody and Sasser (2012) explain the increased life spans by way of biological factors as causes to longer life spans. Genetics plays a role in how the body ages and longevity, which means that not everyone experiences aging as a negative experience.

No matter how strong one's longevity genes are immortality is still not attainable. Even with good life choices early on and health-building behaviors like proper diets, exercise and so on, death is inevitable. Maslow talks about reaching different stages in life and maybe with the stage of self-actualization comes the acceptance that the human body must at some time cease to exist. A different perspective may be that the older adult may look at this pressure to get up and move as a tool that gives them a fighting chance to live life on their terms. An exploration of how the older population perceives and feels about the societal push to exercise could offer a possible answer to questions like these. Answers on how people feel and perceive public policy and interventions help the policy makers and healthcare agents decide on the best possible ways to help society change for the better and with a changing world.

Successful Aging

Before one can understand successful aging, some history on what it means to grow old should be understood. The process of growing old is a natural process for every living creature or thing on earth, including humans. Historically, there have been two main terms used to describe the aging process: primary and secondary. Primary aging was the term used to explain the natural changes that people endured (e.g., gray hair and menopause); secondary aging described changes that occurred to people because of

environmental factors or disease (Aldwin & Igarashi, 2015). However, these terms did not take into consideration other factors such as genetics and lifestyle choices, which affect how people age (Aldwin & Igarashi, 2015; Barry, 2015; Gurye, Oladeji, Abiona, & Chatterji, 2014). People are living much longer than before. Medical breakthroughs and environmental changes, (e.g., penicillin; clean water supplies for underdeveloped countries) has helped to increase the average life expectancy for humans. Life expectancy differs from lifespan. Furthermore, there are variations within the construct of life expectancy (Kunkel, et al., 2014).

Lifespan versus life expectancy. Lifespan is the maximum time measured in years in which a human can survive on earth; life expectancy is the average number of years one is expected to live, which is specific to that person (Moody & Sasser, 2012; Barnes & Schoenborn, 2012; Roundtree 2010a). Kunkel et al. (2014) take the definition a step further with specificity and add in factors such as averageness, age and population by describing life expectancy as "the number of years that an average individual of a certain age in a given population can expect to live" (p. 114). By this definition, this means that people living in one geographical area of the world can have different life expectancies than people living in other geographical parts of the world. However, all humans have the same average lifespan. One can certainly understand the logic behind this for people who live in underdeveloped countries would not have the same resources available to them (e.g., clean water, medicine, healthcare) to help them live as long as people who have an abundance of health-related resources. Gender is also a factor that affects life expectancy; in some war-ridden countries, men may have shorter life

expectancies than women (Kunkel et al., 2014). In any case, when it comes to life span versus life expectancy, lifespan is always a larger number (Moody & Sasser, 2012).

Life expectancy is not finite in value. Different types of life expectancy have evolved. Kunkel et al. (2014) posit that there exists a total life expectancy (TLE), an active life expectancy (ALE), and a disabled life expectancy (DLE). In short, TLE is the blanket term for life expectancy, which then is divided into two distinct groups – ALE and DLE. Active life expectancy is life without disabilities (also known as disability-free life expectancy or DFLE), and DLE is life with disabilities. The deciding factors in to which group one belongs is the noticing of at what age one had difficulty performing normal activities of daily living (ADLs). The most common ADLs used as a measure are the ability to feed and dress oneself, the ability to bathe and go to the bathroom on one's own, the ability to remain continent, and the ability to transfer one's self from a bed to a chair or stand up from a sitting position. People do not age at the same rates and may enter into these classifications at different points of their lives. Furthermore, grouping older adults together with the disabled may predispose other generations to have a negative attitude of what it means to grow old. Certain environmental aides can add to the negative stereotypes given to the aged (e.g., needing special walking ramps or walking devices such as canes or walkers; Carr, Weir, Azar, & Azar, 2013). However, as the graying population continues to increase, there is a shift in attitude toward aging occurring (Cha, Seo, & Sok, 2012; Jeste & Oswald, 2014; Jeste et al., 2013) – that of *successful* aging.

Attitudes toward Successful Aging. The term, *successful aging* has been around for many decades, but recently because of the increasing graying population, is gaining attention (Jeste et al., 2013). The components most associated with successful aging stem from the MacArthur-funded studies conducted by Rowe and Kahn in 1987 and are usually measured on the physical, psychological, and psychosocial domains (Cha et al., 2012; Lee, Lan, & Yen, 2011; Nguygen & Seal, 2014; Parslow et al., 2011). Primarily, successful aging is measured by high or good physical and mental functioning; the lack of disease and illness, and interactions with society (Parslow et al., 2011; Rowe & Kahn, 1997; Strawbridge et al., 2002). Kahng (2008) describes the Rowe and Kahn model as one of the two most distinctive approaches used to define successful aging. The second most distinctive model moves away from the biological degradation(s) that occur as a defining factor. Baltes and Baltes (1990) defined successful aging by using a model that focuses more on how people adapt to aging, and what resources they use in the adaptation of the aging process to combat the physical deteriorations that typically occur. Researchers that follow Rowe and Kahn's model see successful aging as the "positive extreme of normal aging," whereas researchers using the Baltes and Baltes model, successful aging is the "successful adaptation that individuals make in response to the changes of the aging world" (p. 62).

Definitions of Successful Aging. To date, there seems to be no universal definition of successful aging. Nor is there any genuine agreement of the measurement factors used as to what constitutes successful aging (Aldwin & Igarashi, 2015; Cosco, Prina, Perales, Stephan, & Brayne, 2014; Lee et al., 2011; Kahng, 2008; Phelan,

Anderson, Lacroix, & Larson, 2004). Baltes and Baltes' (1990) model may have been the start of using non-biological factors as a way to measure successful aging. The quest to find a universal definition or way to measure successful aging is currently fueled by the increasing demographic shift of a graying population, which is moving research on successful aging to the forefront of scientific queries (Carr et al., 2013). Hence, psychological factors along with subjective views are fast becoming factors that help measure successful aging. Kahng (2008) found that social engagement and social support were important factors in successful aging. However, because social life often diminishes for various reasons among older adults, good mental health was found most influential for successful aging. An extensive literature review revealed that positive attitudes, resilience, as well as positive relationships, played a role in successful aging, despite the participants having multiple comorbidities (Aldwin & Igarashi, 2015). Wisdom (Jeste & Oswald, 2014; Kelly & Lazurus, 2015), resilience and depression (Jeste et al., 2013), and self-esteem (Cha et al., 2012) were all factors found related to successful aging.

Other factors that can mean the difference between aging successfully or not may stem from the environment, subjective views of oneself and age, activities, and lifestyle choices. Environmental factors such as ramps, grab bars, wheelchair accessibility and so on can help an older person feel more secure or competent in their ADLs, which may help facilitate independence (Aldwin & Igarashi, 2013, Carr et al., 2013). Furthermore, Gonyea and Burnes (2013) found that being allowed to age-in-place, like in one's home fostered greater independence and increased self-efficacy. However, when subjective measures were used, self-reports by older adults contrasted the biological model, older

adults tended to consider themselves as aging successfully even with physical ailments or chronic diseases (Cosco et al., 2014; Jeste & Oswald, 2014). The use of subjective standards in the defining of successful aging can cause people who do not meet the criteria for the biological definition to fall in the successful aging category (Aldwin & Igarashi, 2015; Depp & Jeste, 2006; Kahng, 2008, Nguyen & Seal, 2014). Lifestyle choices such as avoiding harmful health habits such as smoking and excessive alcohol use were other related factors to what would constitute successful aging (Barry, 2015; Lewis, 2013) as well as religion and spirituality (Nguyen & Seal, 2014). Going beyond physical activity, Lee, Lan, and Yen (2011) discovered that physical activity can mean leisure activities, which had a significant relationship to successful aging. Overall, several factors relate to successful aging, and some of them are modifiable both in the social and lifestyle domains (Gureje et al., 2014; Nguyen & Seal, 2014).

What does the concept of successful aging mean to the current study? Given that successful aging can be objectively and subjectively measured, it could mean that the societal pressure to exercise, which was probably born out of the societal concern of an increasingly graying population, may only be worthy for parts of a person's lifespan. Those who managed to live to 90+ in years could very well deem themselves as having aged successfully, even when no exercise or physical activity took place (Jeste et al., 2013). The biological model for successful aging uses objective measurements, such as levels of physical and mental functioning (Parslow et al., 2011; Rowe & Kahn, 1997; Strawbridge et al., 2002). Subjective reports given by older adults on successful aging contradicted the biological model, for older adults considered themselves as having aged

successfully, despite physical and mental impairments, which were the main forms of measurement used to determine successful aging (Depp & Jeste, 2006; Jeste et al., 2013; Parslow et al., 2011). That is, when asked if they thought themselves to have aged successfully, older adults answered yes even if they walked with a cane or had some minor memory loss. Hence, the mere fact that they had lived into their 90s, to them, was a measurement of having aged successfully.

Jeste and Oswald (2014) suggest that wiser is not always better. That is, a more informed society may not produce older adults who have aged successfully, for with societal wisdom comes societal compassion, which leads to the development of protective environments. That is, society steps in and develops ways to help older adults instead of letting the older adult learn to do for him or herself. In short, societal wisdom may interfere with the individual wisdom that is usually acquired through experiences that come later in life, and which is essential for adapting to the aging process. As older adults age in place, they may lose the ability to adapt to their bodies' physical and mental decline; adaptation is a tenet of Baltes and Baltes's (1990) model. In essence, the societal push to exercise or to be physically active to promote well-being would be wasted for society is doing for them what they cannot do for themselves. In other words, one could argue, "that a more protective society [as in societal pressure to exercise] makes it less critical for individual wisdom to increase with age…" (Jeste & Oswald, 2014, p. 324). Wisdom is said to increase with age and through one's life experiences. Therefore, in contrast, the informed older adult may wisely recognize the body's demise and move to do something about it by following the suggestions of the societal push to exercise. In

addition, following the societal push to exercise may not be feasible for the older adult because of physical, mental, financial, and environmental factors faced by the older adult, thus rendering the disregarding of societal expectations (Kunkel et al., 2014).

Aging, Exercise, and Recommendations

No one is immune to growing old. Individual life choices can either speed up or slow down the aging process. For example, smoking has been linked to wrinkles, chronologically making one's appearance look older than one is (Koh, Kang, Choi, & Kim, 2002; Leung & Harvey, 2002). Jo et al. (2012) found a significant correlation of smoking to gray hair. With age, the risk of turning gray increased by 14.9% each for each year and for smokers this increase was almost twice as high. Cognitive decline is part of growing old, and smoking can help increase this in older adults (Hotta et al., 2015). The destruction smoking does to one's lungs is without question. Lung disease (e.g., emphysema or lung cancer) not only can affect one's quality of life in their later years but could also bring about a premature demise of the person's life.

Balanced diets and avoiding toxins help to keep the body's molecular functions at their optimal level; which slows down some of the aging processes and combats the onset of disease and illnesses associated with aging (Roundtree, 2010b, Samieri et al., 2013; Van Puyvelde, Mets, Njemini, Beyer, & Bautmans, 2014; Verburgh, 2015). Roundtree (2010b) implies that the human body is designed to function at a certain level and either staying stagnant or making movements beyond the body's normal levels of action can do damage, which helps to speed up the aging process. Excessive heavy lifting and or movements that occur in some professions (e.g., professional weightlifters, steel workers,

dock workers, factory workers, farmers) may produce extra wear and tear on the joints or making the person's body act older than it is. For example, the development of knee problems has been associated with heavy lifting, kneeling, stair use, and a combination of heavy lifting and kneeling (Ezzat & Li, 2014). Also, standing for extended periods of time increased the risk of osteoarthritis in the hip joint (Sulsky et al., 2012). Old sports injuries can resurface later in a person's life and cause incapacitating pain. Former athletes develop osteoarthritis earlier than non-athletes, and osteoarthritis is more prevalent among former athletes (Piotrowska, Majchrzycki, Rogala, & Golebiewski, 2015)

The aging process means muscle atrophy and bone density loss for the older adult. Muscle atrophy (muscle mass reductions), affects the ranges of movement and strength that was once considered normal; hence, some may need to walk with a cane, or need help with ADLs, which can add to the stereotypes of aging. Kunkel et al. (2014) suggested that grouping older adults who need special devices to function normally (e.g., canes, walkers) further enforces the stereotypes typically associated with growing old. On a positive note, following certain dietary and health behavior recommendations help the body stay healthy to fight chronic illness, which is prevalent in old age (McNaughton et al., 2012; Roundtree, 2010b). Exercise helps to improve balance and mobility as well as combat pain (Burr et al., 2012; Halvarsson, Franzén, & Ståhle, 2015; Tse, Tang, Wan, & Vong, 2013; Zhang, Weng, Liu, Wang, Liu, & He, 2014). Even minimal physical activity, such as walking at a moderate pace (e.g., like walking the dog) has some health benefits that increase one's quality of life in old age (Halvarsson et al., 2015).

Quality of Life (QoL). Even though growing old cannot be avoided, the quality of life that older adults experience can be modified. That is, through diet and exercise, older adults can enjoy more independence, have less disease or illness, and have a better psychological well-being; all of which leads to a better QoL. Chronic inflammation and other age-related diseases become more prevalent as the population ages, and these factors can affect immune system functions (Bellew, Symons, & Vandervoort, 2005; Dhabhar, 2011; Vasquez, 2005). Certain dietary behaviors can help mitigate inflammation. Van Puyvelde et al. (2014) reviewed dietary interventions and found that less intake of advanced glycation end products (AGEs; e.g., foods processed at high temperatures such as fried, broiled, and grilled foods) helped reduce inflammation. Less inflammation means less pain and better immune system function (Miller, Nicklas, & Loeser, 2008; Nair, Kachroo, Chawla, & Thakur, 2014). Vigorous physical activity, such as that from playing sports, early in life can help sustain muscle mass, strength, and help with movement functions later in life (Piotrowska et al., 2015). However, vigorous physical activity from sports has been linked to the early onset of osteoarthritis in former athletes (Piotrowska et al, 2015), which is a factor in later adulthood that many try to avoid. So, in a way, engaging in vigorous physical activity seems to be counterintuitive when it comes to growing old gracefully. Some older adults may disregard the societal pressure to exercise because the vigorous exercise they did early in their life is why they have arthritic pain and this pain further enhances the negative attitude toward exercising held by these older adults.

Along with reminders to watch what is consumed, the public message is to get up and move. That is, exercise and or engage in some form of physical activity. One thing that may need to be kept in mind is that these recommendations may not be a one-size-fits-all type of message. Older adults may suffice with different levels of vigorousness, durations, or techniques in meeting these recommendations than younger adults.

The amount of exercise and level of exercise that is recommended varies with intensity (AHA, 2014). Generally speaking, people should plan on engaging in 150 minutes of aerobic exercise of a moderate to vigorous intensity per week or each week engage in 75 minutes of aerobic exercise three days a week coupled with two days of weight lifting for muscle building (AHA, 2014; HHS, 2008). Exercise can be as simple as going for brisk walks a few times per week. Even though this type of exercise does not meet the general requirements to be considered moderate to vigorous exercise, walking is still beneficial to one's health (CDC, 2012). Exercise for people with disabilities may be challenging and therefore, should be done under the advisement of their healthcare practitioner (HHS, 2008). The same may be said for the very old adult (75+ in years), the oldest old (85+ in years) or the centurion (100+ in years). Bellew et al. (2005) suggested that when addressing exercising in the older adult population, certain factors should be kept in mind. One factor is that people do not age at the same rate, and a person's chronological age may be very different from his or her physiological age. Furthermore, older adults are more likely to use medications that may interfere with exercise performances and or produce different physiologic responses to exercise. Also, older adults may have existing ailments or latent diseases that make certain exercises difficult

to perform. In any event, aging can put people at risk for certain health problems and older adults should undergo annual physicals from their physicians as a precautionary measure to exercise and or to continue exercising.

When it comes to heeding the societal messages that people need to get up and move more, even the simplest exercise can have some benefits. When it comes to muscle mass and bone density, the "use it or lose it" rule may be a stronger persuasion than the societal pressure to get up and move. However, this too may be dependent on subjective attitudes toward one's body, age, and abilities. For someone over the age of 85, the attitude may be a "why bother" type of attitude for the individual is ecstatic to have made it that far in age. This negative attitude could be especially true if the individual did not always follow the best choices for living a long life (e.g., ex-smoker or other risky behaviors). In a review of the literature on exercise and older adults, Paterson, Jones, and Rice (2007) discovered that one of the recommendations for this age group was simply to increase or add activities subconsciously to their daily routines. However, Paterson et al., found that even though some older adults reported an increase in energy and renewed interest in certain physical activities (e.g., brisk walks, gardening), others perceived the message to increase activity as tiring or too hard, and thus avoided the behavior.

At some point, it is presumed that people will start to come to terms with their demise, for no one lives forever. Still, pressuring people to exercise may be relevant. The population is graying at an alarming rate, and globally, having a healthy, mobile, and independent older population would be less taxing on the public support systems, such as welfare and Medicaid, as well as possibly reducing the medical expenses that naturally

occur from aging. Exercise has many known benefits; disease and illness are more prevalent in the later years, and exercise is a way to combat these aging problems (Heiby et al., 2005; Iso-Ahola, 2013; Moody & Sasser, 2012).

Paterson et al. (2007) suggest that the primary goal for exercising in older adulthood is to preserve function and independence with the secondary intentions of reducing age-related chronic disease, compress the time spent with a disability during one's lifetime, and to extend life. The traditional trend for exercise programs focused on improving physique and mitigating diseases. Alternate goals for exercise programs need to address the various health status and physical functions of older adults. It is not enough for the older adult to just go through the movements. Older adults should also be aware of the reasons behind performing certain physical movements so that their exercising behaviors have an end goal (e.g., better mobility, increased strength, increased flexibility, better bone strength). In turn, these reasons help the older adult better understand how exercise is relevant to a continued physical independence. Exercise in older adulthood mitigates the physiological declines that occur in old age as well as help to increase longevity (Bellew et al., 2005; Paterson et al., 2007). Halvarsson et al. (2015) and Bellew et al. (2005) agree that exercises for older adults should include flexibility and balance exercises, such as stretching, as well as aerobic and weight training exercises as a way to help reduce the risk of falls in later adulthood.

The History of Exercise

Exercise and physical activity have been a topic of researchers for decades. One can presume that the agile caveman had a better chance of survival for certain muscular

skills and strength was needed to hunt over rough terrain in the toughest and most dangerous of environments. Native Americans on the plains and other types of human tribal clans needed the speed and agility that comes from strong legs to outrun predators and to fight battles to protect their clans. In ancient civilized times, dance was done as a form of entertainment as well as acrobatics (e.g., gymnastic-like movements) for kings and other rulers. Knights practiced fighting for hours as a way of mastering and strengthening the blows they would use that would render their foes immobile territorial wars. Gladiators and ancient Olympic games needed participants that were strong in body as well as the mind for competitions. In fact, the ancient Greeks started the Olympic sporting games that take place in the present day, whereas the earliest recordings of sports clubs were found within the ancient Jewish civilization (Daulat, 2015; Frantzopoulou, Douka, Kaimakamis, Matsaridis, & Terzoglou, 2012).

Exercise has been the basis of many ancient civilizations (Dalleck & Kravitz, 2002). Exercise as a means of becoming and maintain physical fitness for war purposes was important early in human civilization and dates back as early as Babylonian and Ancient Egyptian times (3001BC-332BC; Daulat, 2015). Hansson and Ottosson (2015) proposed that Pher Henrik Ling (1776-1839) started gymnastics for medicinal as well as general health purposes, thereby making Ling often noted throughout history as the "father of gymnastics" (p. 1187). However, gymnastics and gymnastic-like movements were around much earlier. In fact, martial exercises date back to ancient Egyptian times (10,000 BC), and hieroglyphics have been found dating back to 4,000 BC showing men

engaging in various forms of exercise and sports, one being gymnastics (Frantzopoulou et al., 2012).

By 2500 BC, other cultures were engaging in exercise more commonly known as gymnastics and acrobatics. In ancient China, these forms of exercise were used mainly for therapeutic reasons (Daulat, 2015), while other cultures used these forms of exercise for military training and entertainment purposes (Dalleck & Kravitz, 2002; Frantzopoulou et al., 2012). Bull-leaping was very prominent during the Minoan era (2800 – 1100 BC) and was the most common form of physical activity (Frantzopoulou et al., 2012). Bull-leaping can be seen as the precedent to the acrobatic flip for athletes would run alongside the bull, grab its horns and as the bull jerked its head upward, the athlete would use this momentum to flip through the air (Frantzopoulou et al., 2012). One can presume that even with the best of physical acuteness and strength that this did not always end well. However, it can also be surmised that stronger athletes stood a better chance of successfully completing the feat safely. Successful bull-leapers can be seen as an early testament to the benefits of being physically fit - hence, a benefit of exercise.

Exercise and physical fitness have been a means to train a country's soldiers for many centuries. The Persian empire was the greatest advocate of exercises for military training for the Persian empire owned all young boys and trained them diligently for the military starting at the age of six (Dalleck & Kravitz, 2002). The ancient Jews viewed physical stoutness as a crucial factor for laying a foundation to a powerful nation (Frantzopoulou et al., 2012). However, the Greeks were the culture who held physical fitness in the highest of regards because of this culture's admiration of the human body as

a beautiful work of art (Dalleck & Kravitz, 2002). However, exercise and physical fitness decreased with the fall of the Roman Empire. The Romans placed fitness third to the acquisition of material items and wealth, which eventually allowed the Roman empire to fall to the more physically fit Northern European tribes who were barbaric by nature (Dalleck & Kravitz, 2002). The fall of the Roman Empire to the Barbarians could stand as another testament as to the benefit of staying physically fit through exercise. The Romans favored a lavish lifestyle that made their bodies weak and fat, which could be an early testament to Darwin's evolutionary theory of the survival of the fittest.

Dark Ages to Colonial Periods. When the Barbarians conquered the Roman Empire, this time in history was referred to as the Dark (476 – 1000) and Middle Ages (900 – 1400). Dalleck and Kravitz (2002) describe this time as a time when civilization turned back to being primitive and therefore, hunting and gathering were the natural sources for food. Therefore, even though exercise was non-existent, the hunting and food gathering skills required physical endurance thus keeping the people of the dark ages physically fit. The Renaissance period (1400-1600) was a time of learning and the rebirth of culture. With the cultural rebirth came a renewed interest in the human body. Early philosophers (e.g., John Locke) and physical educators (e.g., John Comenius) supported the conception that exercises enhanced intelligence. That is a sound body produced a sound mind.

Moving into more present times, early farmers put in long hours doing strenuous physical activities that help yield the crops that would feed and support their families. The industrial boom may have opened a new avenue of physical acuteness. Well drillers,

iron workers, carpenters and other forms of lay work all required a certain type and amount of strength to perform their jobs. Simply by performing these types of duties daily, many individuals would become stronger or develop certain muscles more than others. In contrast, industry also aided in helping people to become less physically fit, for machines were used to pick up heavy objects, plow fields, milk cows and so on. Furthermore, as factories sprung up, overcrowding became a problem that affected the health of many (Daulat, 2015). In the 19th Century, an interest in sports surfaced and the development of team sports grew, which supported the need for exercise to help athletes maintain their physical stoutness needed to play these sports (Daulat, 2015). With sports comes sports injuries, that of which were often treated with physical exercise therapies (Hansson & Ottosson, 2015). Exercise therapy was used for treating other ailments and still exists today (Daulat, 2015).

In ancient times, physical education was the common way to disburse the benefits of exercise throughout civilizations (Dalleck & Kravitz, 2002). Internationally, physical education is abundant in literature (Hansson & Ottosson, 2015). Today, not much has changed for physical education is still taught in schools today. Furthermore, physical education is gaining ground by its public dissemination through community and government-based programs designed to promote healthy living (e.g., Project Fit America; Silver Sneakers exercise programs for older adults). Some individuals may view these public and governmental programs as pressure to exercise and stay physically fit, which brings one back to the subject of the present inquiry as to how older individuals feel about the societal pressure to exercise.

Benefits of Exercise

The benefits of exercising have been well documented. For the most part, exercise is a favorable health behavior. Documentation exists on the benefits of exercise as a way to help prevent the risk of some diseases (e.g., heart disease, diabetes, certain cancers) and as a way to help mitigate the symptoms of other diseases (e.g., osteoarthritis, chronic low back pain or CLBP; Burr et al., 2002; Daulat, 2015). An exercise as simple as walking for approximately 50 minutes a day produced healthier cholesterol levels as well as significant weight loss and increased flexibility in participants (Lee, Seo & Chung, 2013). Non-contact boxing training has helped reduce the symptoms of Parkinson's Disease in patients with this disease (Combs et al., 2011). A study done on patients with multiple sclerosis showed that the mindful exercise of Tai Chi helped reduce symptoms of depression and increased these patients' balance and coordination skills (Burschka, Keune, Oy, Oschmann, & Kuhn, 2014). The benefits of exercise also go beyond disease control and mitigation of symptoms.

Exercise can be used to stop unhealthy habits. In one study, exercise helped to control appetite during smoking cessation as well as curbed the craving to smoke (Janse Van Rensburg, Elibero, Kilpatrick, & Drobes, 2013).

As with adults, exercise helps to reduce body fat and support metabolic functions in adolescents (Monteiro et al., 2015). From a social standpoint, exercisers tend to be rated more positively in personality traits than non-exercisers (Lindwall & Martin-Ginis, 2006) and experience higher levels of self-esteem (Liu, Wu, & Ming, 2015), physical self-esteem (i.e., one's physical strength and abilities; Joseph, Royse, Benitez, &

Pekmezi, 2014) and decreased hopelessness (Yigiter, 2014). Exercise also had cognitive benefits for those suffering from stress-related problems (Lindegård, Jonsdottir, Börjesson, Lindwall, & Gerber, 2015) suggesting that exercise should be made part of a treatment plan for those in clinical stress venues (Gerber, Jonsdottir, Arvidson, Lindwall, & Lindegård, 2015). Exercise has also slowed weight gain caused by cortisol excretions because of stress (Puterman et al., 2016).

Mavric, Kahrovic, Muric, and Radenkovic's (2014) overview of the literature on physical activity found that research is supportive of the mitigation for the risk of many chronic diseases and illnesses that plaque humankind today. In addition, exercise helps build a strong mind as well as a strong body, which in turn, can lead to healthier psychological abilities and attributes. Wilson (2016) states, "exercise directs the body to preventive health" (p. 4). That is, exercise helps to support good health and general well-being by reducing the risk to certain chronic diseases and illnesses. Individuals perceive certain objects and phenomena differently because of the uniqueness that individuals obtain. Many factors go into making a person that specific person and these factors can also affect how people react, perceive or behave in certain situations. Age can be one such factor. When it comes to exercising, older adults may reap different benefits and engage in exercising for different reasons than younger adults and children. Furthermore, the benefits reaped may have underlying different meanings for the older adult than for a younger adult for older adults may suffer from problems associated with growing older and the reason to exercise becomes more personal in nature to these older adults.

Exercise Benefits for Older Adults. Older adults face different physiological problems than younger adults simply by aging. As the body grows older, muscle mass is lost, bones become weak and brittle, and the brain starts to decline, both in size and function. Decreased mental and physical functions can lead to psychological problems such as depression and loneliness. Decreased physical and cognitive abilities can also interfere with older adults' activities of daily living (ADL). Exercise has been associated with improving one's moods (Matsouka, Bebetsos, Trigonis, & Simakis, 2010; Privitera, Antonelli, & Szal, 2014). However, certain diseases (i.e., Parkinson's disease) may counteract the positive affect exercise has on mood while improving cognitive function (Cruise et al., 2011).

Depression is prevalent in the geriatric population and should be a public concern since the geriatric population is steadily increasing in size (Hasche & Morrow-Howell, 2007; Scheetz, Martin, & Poon, 2012). Exercise has proven beneficial in reducing depression and anxiety in various groups of adults (Gutierrez, Luque, Medina, del Castillo, Barrilao, & Rodrigo, 2012). Some may argue that exercise is only good for combating acute bouts of depression. After all, life can get a person down at times. For the older adult, this may be even truer for they are facing their mortality as well as the mortality of their loved ones and friends. However, a study conducted on the effects of exercise found that even older adults diagnosed with major depressive disorder (MDD) have benefited in symptom reduction through exercise (Heissel et al., 2015).

Older adults face age-related cognitive disorder more so than younger adults simply because of a decrease in gray matter that occurs due to the aging process (Tamura

et al., 2015). Exercise has helped with memory and increased cognitive abilities in older adults with Alzheimer's disease (Tanigawa et al., 2014; Vreugdenhil, Cannell, Davies, & Razay, 2012) as well as for those with Parkinson's disease (Cruise et al., 2011). Exercise has proven to help in reducing the amount of prefrontal brain shrinkage in old adults that naturally occurs during aging (Tamura et al., 2015). Good muscle tone is needed for needed for balance and the completion of ADLs (e.g., opening a jar, climbing stairs, carrying groceries). Exercise helps to increase physical abilities needed to perform ADLs (Bottino Roma et al., 2013; Ourania, Yvoni, Christos, & Ionannis, 2003). Exercise has also been associated with better bone mass and bone strength (Karlsson, Nordqvist, & Karlsson, 2008). From a social standpoint, exercise has helped build intergenerational relationships (Stathi, McKenna, & Fox, 2010) and has decreased feelings of loneliness in older adults (Tse et al., 2013).

While the benefits of exercise have been empirically tested and supported for people of all ages, little to no literature addresses how older adults feel about being told to exercise or engage in some form of physical activity on a weekly basis, no matter how old they are. Just like anything else, too much of a good thing may have adverse effects. These adverse effects may sway how older adults feel about exercising and also being told to get up and move on a daily basis.

Barriers to Exercising

Exercise, like everything else, has pros and cons. The cons in exercising can act as barriers to engaging in what is normally considered a health-preserving behavior. Time (as in lack of) has been reported as the most common reason why individuals do not

engage in exercise or physical activity (El Ansari & Lovell, 2009; Ishii et al., 2009; Lee, Wilbur, Chae, Lee, & Lee, 2014; Patay, Patton, Parker, Fahey, & Sinclair, 2015). However, the time factor was not the biggest barrier for all age groups (Lovell, El Ansari & Parker, 2010; Moschny et al., 2011).

Exercise should be individually specific (Haung, Lin, Lee, & Chen, 2016); by this, it is meant that exercise should be age-appropriate as well as consider body type and possible disabilities. Older individuals should not be expected to perform at the same pace as younger individuals. An obese person should not be expected to exercise at the same pace as a person with a normal weight (Body mass index [BMI] ≤ 25). While there are benefits to lifting weights to increase muscle mass, the amount of weight lifted should not exceed what the muscle(s) can handle. Too much weight or strain (as in repetitive motions too quickly) can result in muscle strain or injury to a tendon. Sore muscles can hinder a person from continuing to exercise. First-timers that approach exercising with a zealous attitude may often strain muscles so much that they do not exercise again. Other individuals may think that certain exercises are beyond their physical capacity or look too hard to perform. Some adults equate soreness, pain from injury, tiredness, exertion, and difficulty in performing as reasons why not to engage in physical activity (Lovell, et al., 2010; McGuire, Seib, & Anderson, 2016; Rundle-Thiele, Kubacki, and Gruneklee, 2016).

Demographics, as well as the environment, play a role in keeping people from engaging in exercising or other physical activities that would be beneficial to their health. (Franco et al., 2015; Horne & Tierney, 2012; Horne, Skelton, Speed, & Todd, 2013; Ishii et al., 2009; Moschny et al., 2011, Patay et al., 2015; Saligheh, McNamara, & Rooney,

2016; van Schijndel-Speet, Evenhuis, van Wijck, van Empelen, & Echteld, 2014). Individual health status and personal disability from illness can act as a barrier to exercise and physical activity (Horne, et al., 2013; Moschny et al., 2011). However, not all illnesses are seen as barriers or are a source of a barrier to exercise and physical activity (Klompstra, Jaarsma, & Stromberg, 2015). Furthermore, those of advanced age may be purposely discouraged to exercise by family members (El Ansari & Lovell, 2009). Family members may be fearful that the older adult will injure his or herself. Sometimes a family member may possess a negative stigma toward old age and reiterate this negative stigma to the older adult as a "at your age, why bother" type of message. Poor financial status, as well as a lack of affordable exercise activities, make it difficult to join a gym or participate in physical activities (Saligheh et al., 2016). Individuals within certain age brackets may not see the sense of exercising, have demanding careers, or feel that it is not necessary for their current age (Franco et al., 2015; Huang et al., 2016; Horne & Tierney, 2012; Ishii et al., 2009; Lee et al., 2014).

An individual's appearance or weight may make them feel uncomfortable in a public venue such as a gym or community center. Overweight individuals (BMI $\geq$ 25) reported more barriers to exercise and discomfort than normal weight individuals (Harville, 2015; Ishii et al., 2009; Litman et al., 2015; McGuire et al., 2016). Environmental factors such as dangerous or rough neighborhoods, lack of public transportation systems and unsafe walking areas act as barriers (Franco et al., 2015; van Schijndel-Speet et al., 2014). Unsafe neighborhoods may act as a barrier to exercising when to do so means having to leave the house. Lack of public transportation for those

who do not or cannot drive can mean no viable means of transportation to the local gym or physical activity venue. Lack of safe walking spaces (i.e., sidewalks) may also discourage individuals who have to walk to a gym from going there. Lack of venues available can be another reason why some individuals do not exercise or engage in physical activities. For example, small countrified towns may not have the funds for community centers where physical activities such as volleyball, dancing, or certain types of exercise classes can be held. Areas that are heavily populated with older adults may lack venues or programs geared for younger adults and vice versa. However, some environmental barriers may be more age- or gender-specific (Ishii et al., 2009; Harville, 2015; Musaiger et al., 2014).

Some barriers may vary by gender; males tend to engage in more exercise or physical activities than females (Klompstra, Jaarsma, & Stromberg, 2015; Wood, Gladwell, & Barton, 2014). Obese women undergo certain hormonal changes that may act as a barrier to exercise. Fernandez-Aranda et al., (2014) explored endocannabinoids (intercellular lipid messengers in hormones) in obese women and temperament in obese women. The results of their study suggested that obese women have lower moderate-vigorous physical activity and dysfunctional temperament traits when compared to normal weight women. Simply stated, these women exhibited genetic traits that made them prone to being inactive. Women viewed a lack of transportation as well as a lack of opportunity to exercise as a barrier more so than men (Moschny, et al., 2011). Furthermore, women reported less or no family support so they can exercise and perceived men to be resistant to them wanting to exercise (Lee et al., 2014). Women also

viewed the physical effort needed to exercise as a common barrier (Lovell et al., 2010; McGuire, et al., 2016). Men did not view neighborhood safety as a barrier, where women did see neighborhood safety as a barrier, and women experienced more monetary barriers than men (Harville, 2015). These are only a few of the differences in barriers experienced and perceived by men and women. To list all would be beyond the scope of this study and these few are mentioned as an acknowledgment that sex differences, environmental factors, and demographical factors of barriers to exercise do exist.

Barriers can be real or perceived. Perceived barriers to exercise may rely heavily on an individual's psychological and physiological make-up. That is, how one adjusts to life's difficult situations may be indicative of how exercise is perceived. If a person gives up easily, then many barriers would exist. If an individual is tenacious in all his or her efforts, then most likely barriers would be minimal. However, for the older adult, time can act as a barrier in a much different way as the body deteriorates than it would for the younger adults. The same can be said for other barriers to exercise as well.

Barriers for Older Adults. When it comes to exercise and staying active, older adults may have different barriers than younger adults. Physiological factors that normally occur with aging, as well as age can act as a barrier to exercise or physical activity (van Schijndel-Speet et al., 2014). Age may jeopardize older adults' self-confidence in performing the activity. Loss of muscle and bone strength may make it physically difficult, or in some cases impossible, for the older adult to engage in exercise or physical activity. Arthritic pain can keep older adults from enjoying simple activities such as leisurely walks or simple stretching or balance enhancing exercises. Pain and

mobility issues are often reported as barriers to physical activity and exercise among older adults (Eronen et al., 2014; Ishii et al., 2009; Rundle-Thiele et al., 2016; van Schijndel-Speet et al., 2014). Older adults also rank existing barriers to exercising differently than younger adults. For example, older adults reported that poor health was a bigger barrier than lack of time (Moschny et al., 2011). Furthermore, men over the age of 80 thought that poor health was a barrier more so than women 80+ in years, making poor health a gender-specific barrier among older adults, but only for those over the age of 80; there was no reported significant sex difference in those age 70 – 79 years of age (Moschny et al., 2011).

Other commonly reported barriers to exercise among older adults was no one to exercise with and no interest to exercise (Moschny et al., 2011), lack of transportation, no skill set for exercises, low confidence levels in performance, and lack of support (Horne & Tierney, 2012; van, Schijndel et al., 2014). Older adults may have to rely on family members or others for transport and support, which can make communication and relationships a barrier for this population (Horne & Tierney, 2012). The older adult may not want to seem bothersome to family members or feel embarrassed to ask for a ride to the community center or gym or need assistance in performing exercises. Family members may discourage the older adult from exercising out of fear of injury to the older adult.

Personal beliefs also may surface as a barrier in some older populations (Horne & Tierney, 2012). Older adults may not see the sense of exercise at their advanced age, nor understand the benefits of doing so (Franco et al., 2015; Horne et al., 2013; Horne &

Tierney, 2012). Fear of being ridiculed by peers was also a barrier in some older adult populations (van Schijndel-Speet et al., 2014). Gender can affect the magnitude of the barriers in exercise (Musaiger et al., 2014). Women reported more transportation issues and fewer opportunities for age-appropriate exercise or physical activity than men did (Moschny et al., 2011). However, sometimes age-appropriate exercises can be boring or seem childish to older adults (van Schijndel-Speet et al., 2014). In addition, older men tend to view group exercise or physical activities as a primarily feminine activity (Anderson, Seff, Batra, Bhatt, & Palmer, 2016). Fear can be a strong motivator and likewise can be a barrier, especially for older adults. Fear of falling or injury or re-injury was a reported barrier among older adults (Franco et al., 2015; Moschny et al., 2011). Furthermore, exercise exacerbates existing physical maladies, especially when age is a factor (Patay et al., 2015).

Even though exercise is a health-building behavior, not everyone can participate in it or think that the benefits outweigh the consequences of not engaging in the activity. However, concerning barriers to exercise and physical activity, trying to change one's perceptions and behaviors toward exercise through societal pressure to do so may produce adverse effects. That is, pushing people to exercise, especially for the older adult, may become a barrier to exercising for the older adult has different attitudes toward exercising and physical activities.

Attitudes toward Exercise and Physical Activity

Attitudes differ from beliefs; a belief is more of a personal mental acceptance of a situation. An attitude is a controlled mental feeling based on external and internal

cognitive input that an individual develops toward an object, person, situation, or activity. An attitude is more of an evaluation of an object or situation and where it falls on the continuum of good or bad derived from experiences with said object or situation (Kruglanski et al., 2015). Blair, Dasgupta, and Glaser (2015) define attitude as "a psychological tendency to view a particular entity (called an *attitude object*) with some degree of favor or disfavor" (p. 665).

When it comes to engaging in exercise or physical activity (PA), belief relates more to ability (e.g., self-efficacy); whereas, an attitude relates more to personal liking. Thus, a firm belief that one can perform the activity does not mean that the person would like the activity, hence, the attitude the person has toward the activity. Likewise, overweight individuals who have a strong negative attitude of their body image may feel too embarrassed among thinner individuals to participate in an exercise program (Deforche, De Bourdeaudhuij, & Tanghe, 2006; Guess, 2012). Midlife women may take the attitude toward exercise that while exercise is beneficial, it is not an option because of overwhelming family responsibilities and lack of support (Im et al., 2011). Age also affects attitude. Hudson et al. (2015) found that after attending an exercise intervention older adults' attitudes toward exercise varied with age. The older adults' attitudes varied from having a sense of control over age-related declines to exercise being a reminder of just how much their body has declined. In the latter, one could surmise that a person who dwells on age-related decline may not see the sense in exercise.

Kruglanski et al. (2015) take the stance that while attitudes are evaluations; these evaluations play an important role in the development of goals. The goal is the behavior

motivator, not just the attitude toward the attitude object or situation. Therefore, liking something is not necessarily the same as wanting something. It is the wanting, along with other factors (e.g., the energy needed and resources available) that initiate the development of the goal, that is when a person wants something, he or she will develop a plan to obtain it, despite one's attitudes. In other words, if a person is content (has an attitude of liking the way he or she looks or the way his or her life is) this liking will not evolve into wanting – thus, no goal is formed. To put it more distinctly, it is the "liking for the one state versus another that induces wanting, which then may translate into goal formation" (Kruglanski et al., 2015, p. 601).

One should keep in mind that goal attainment can be accomplished sometimes by various mediums (Kruglanski et al., 2015), which means that when it comes to promoting health behavior changes, exercise may not be the number one choice. For example, a person who has a goal to lose weight can do so with diet change and not exercise. Likewise, those who want to improve their physique could do so by lifting weights and not engaging in strenuous aerobic exercise programs that may be hard for some to do. Behavior change can mean the cessation of an undesired behavior, such as smoking or overeating, both of which will help improve health. In general, when it comes to attitude as the drive behind the behavior, research suggests that attitude strength alone is not sufficient to produce the desired behavior (Kruglanski et al., 2005). However, attitudes vary in type, and it may be that one is better at predicting a behavior than another.

Attitudes can be implicit, which means they occur automatically with no conscious awareness (e.g., a gut feeling), or explicit, which can be developed through

rational constructs that are deliberately formed from external cues and are in the conscious mind (Howell, Ratliff, & Shepperd, 2016; Markland, Hall, Duncan, & Simatovic, 2015). Attitudes toward exercise, however, go one step further and can be conceptualized as instrumental (e.g., regarding health) or affective (e.g., emotionally based; Berry & Shields, 2013; Kraft, Rise, Sutton, & Roysamb, 2005). Another description of the two has to do with performing the behavior at hand. With affective attitudes, it is more about the emotions that are stirred at the prospect of performing the behavior, whereas instrumental attitudes consider the good and bad levels that performing the behavior will produce (French et al., 2005). By this standard, a person may acknowledge the benefits of exercise for one's health (instrumental attitude) but find doing exercise unpleasant (affective).

When it comes to behavior intentions or behavior engagement, it may be the *type* of attitude that is the strongest, which ultimately guides the individual's behaviors. Calitri, et al., (2009) discovered that people who exercise more have a more positive implicit attitude toward exercise than an explicit attitude. Likewise, people who held high implicit attitudes were more likely to engage in exercise behaviors (Hyde et al., 2010). Furthermore, implicit attitudes, but not explicit attitudes, toward exercise were representative of an unconscious favoritism toward exercise cues (Calitri et al., 2009). People who had an exerciser self-schema (e.g., thought of themselves as avid exercisers) had exercise intentions influenced more by explicit attitudes than implicit attitudes (Banting et al., 2009).

Implicit attitudes were more likely to predict whether a person sought out health information. Howell, Ratliff, and Shepperd's (2016) study revealed that when it came to avoidance behaviors, the deliberate decision to not want to know one's risk for disease was influenced by the individual's implicit attitudes toward health information, in general. Explicit attitudes may be gender-specific with certain situations or objects. Boys' permissive sexual attitudes were influenced more by explicit attitudes held toward engaging in sex than girls, leading boys to engage more in permissive sexual behaviors than girls (Doornwaard, Bickham, Rich, ter Bogt, & van den Eijnden, 2015).

Probably one of the most remarkable facts about implicit and explicit attitudes is that they can be deliberately changed through manual manipulation of stimuli that help form them (Markland et al., 2015). Research has shown that when presented with negative health consequences, participants were more likely to choose the healthier snack over the sugary snacks by changing implicit attitudes (Hollands & Marteau, 2016; Hollands et al., 2011). With the use of positive imagery for exercise, participants' implicit attitudes toward exercise were made more positive (Markland et al., 2015). Wolff, Warner, Ziegelmann, and Wurn (2014) found that when positive views on aging were introduced into an exercise intervention, participants' attitudes toward exercise as an older adult not only changed for the better but also that these newly formed positive attitudes led to more future exercise behaviors, later. Wurm and Benyamini (2014) discovered that older adults, who held a higher optimistic attitude, while accepting age-related declines of their bodies, exercised more. Even older adults who were in poorer

health but had a positive attitude exercised more than those who held a negative attitude (Wurm, Tomasik, & Tesch-Romer, 2010).

Furthermore, one type of attitude can override the other or come together to further strengthen a behavior (Forrest, Smith, Fussner, Dodd, & Clerkin, 2016). For example, implicit attitudes (automatic, gut reactions) may lead a person to choose an unhealthy snack when feeling hungry, whereas when thought is involved (explicit attitude), the person may choose a healthy snack. By this standard, when explicit attitudes are at the forefront of consciousness, they will override implicit attitudes (Forrest et al., 2016; Markland et al., 2015).

Attitude has been a course of study in science for some time. Researchers have used this construct to examine exercise behaviors (and lack of) among many different populations. Research has investigated the attitudes toward exercise of midlife women (Im et al., 2011), overweight and obese individuals (Guess, 2012; Miller & Miller, 2010), adolescents, preadolescents, college-age adults aged (Doornwaard et al., 2015; Khan, Abbass, Ul-Islam, Khan, & Din, 2012; Nelson, Benson, & Jensen, 2009). The attitudes of young adults in their late 20s to 45 years of age, as well as older adults who were over the age of 60 (Hudson et al., 2015; Kwan & Bryan, 2010; Pappous, et al., 2006; Poobalan et al., 2012; Wolff et al., 2014) have been examined with regard to exercise behaviors and intentions among these populations. Barnett, Guell, and Ogilvie (2013) investigated attitudes that couples portrayed toward exercise and found that among couples, attitudes toward exercise did not always agree. The attitudes general practitioners held when treating people with chronic knee pain (Cottrell, Roddy, & Foster, 2010), in-hospital

patients (So & Pierluissi, 2012) and attitudes toward internet-based exercise programs also have been investigated (Steele, Mummery, & Dwyer, 2007). Even the attitudes toward the exercise message source (non-profit versus governmental) were also investigated (Berry & Shields, 2013).

There seems to be an abundance of how attitudes of different populations toward exercise affect the exercise behaviors of these populations. However, the exercise-attitude literature is lacking in how pushing people to become healthier through exercise affects their willingness to do so. As the societal norm to get up and move and exercise becomes stronger through public (e.g., commercials, government and community programs) and private messages (e.g., from a physician or physical therapist), how do people feel about this pressure placed upon them? Various segments of the population may view societal changes that are starting to become the norm differently. Adults over the age of 80 may take these societal change messages very differently than adults in their 40s, 50s, 60s, and 70s. Therefore, if governments want to help build a healthy older population, the attitudes toward being pressured to exercise should be considered so the best possible interventions could be developed to help produce a healthy future population.

Societal Pressures and Conformity

The adage, "it takes a village" goes beyond just teaching youngsters about life and survival. A group (as in a village) can exert pressure on its members to perform or act a certain way and in a certain context. Chapelain et al. (2015) describe social pressures as an extrinsic factor that makes people change their behaviors to be more like that of their peers (or group) in order to become part of that population. Peer pressure and societal

pressure both influence people's behaviors. Social pressure is interchangeable with social influence (Thomas & Wilson, 2016). Social pressure (or influence) is more a mechanism for behavioral change than for intention. Chen and Lai (2014) found that people's intentions to act were not affected but their behaviors were by social pressures toward a particular act. In reference to exercising, this would mean that social pressures may induce people's intention to exercise, but do not support the actual behavior of exercising. For the purposes of this study, both, societal pressure and social influence would mean the same and would stand to mean both pressure executed by one's peers, friends, family, and society in general.

Social pressure can influence behaviors; one behavior is conformism (Battiston & Gamba, 2016). When a person conforms, a change in behavior occurs from either real or imaginary group pressure and some form of a cognitive evaluation of the behaviors of the group's majority (Battiston & Gamba, 2016; Deuker et al., 2013; Duo et al., 2016). Conformity is not simply doing what others do; it also has an individual effect on a person. That is, the person is affected by what others are doing, and this affect makes the person join in the behavior, when the behavior is in line with one's internal beliefs. Conformity and complying are not the same. People can comply, which is conforming in an observable fashion, although internally they may be against the behavior. When a person is asked to perform a task and he or she does the task, they have complied with the wishes of the person asking. When a person conforms, he or she takes on the same beliefs and attitudes held by the group with which he or she is conforming. People can obey, which is following a direct command whether they agree with the command; which is

another way to comply. People can also show acceptance, which is a form of conformity (Duo et al., 2016; Kim Chen, Smetana, & Greenberger, 2016). Acceptance involves believing in, as well as going along with, subjective norms (e.g., the individual's perceptions of community, group, or societal expectations for acceptable behavior in particular situations; Deuker et al., 2013; Park & Smith, 2007).

Furthermore, just as people are unique individuals, this uniqueness can filter down to their perceptions of what is appropriate behavior and what is not. That is, Park and Smith (2007) propose different types of norms along with different levels of understandings for each type by the individual. An individual can perceive variations of these norms both at the personal and societal levels. In short, norms can be descriptive or injunctive in nature. Descriptive norms are based on what people actually do who are around the individual, for example, giving a standing ovation for an exceptional theatrical performance. Injunctive norms are based on the individual's perceptions of the level of approval that would be given for the behavior, for instance, the loudness level one talks at when in a public library. Norms can also be subjective and or relevant for a specific time, for example, past norms on parental punishments were to spank a child; more current norms are to give a "time out" or give an explanation to the child as to why "X" behavior was inappropriate.

Just as people change, so do the societal norms that help govern the current behaviors acceptable to the population at hand. Therefore, when it comes to the older population, what may be the norm for exercise engagement for the younger population may not be the norm for the older population. Placing societal pressure on the general

population to become more active may vary in acceptance by the older populations. That is, older adults may not feel the need to be more active to live longer, for they already have lived longer. In retrospect, how does all the public, private, and governmental messages designed to pressure people into being more active and change their health behaviors through exercise make the older population feel? How does changing one's personal views on the new proposed social norms to get up and move more often affect the older populations? Do older adults heed the advice of their physicians or healthcare givers to exercise and if so, how do they feel about being told that they need to be more active?

Social pressure or social influence has long been a topic of interest in the social sciences. Researchers have investigated how social pressure affects behaviors related to organ donating (Park & Smith, 2007), tax compliance (Battiston & Gamba, 2016), whether or not to report wrong doings within a corporation (Chen & Lai, 2014), country violence rankings and policy changes (Kelley & Simmons, 2015), voting and voter turnout (Gerber, Green, & Larimer, 2008; Panagopoulos, 2013; 2014), and socially influenced extremist group behaviors toward defectors of that group (Koehler, 2015). However, there is little to no research on how social influences or pressures to perform these types of behaviors seem to exist.

Other approaches that researchers have taken is on the psychological effects that social pressure has in children and perceived norms and norm violations (Hardecker, Schmidt, Roden, & Tomasello, 2016; Kim, et al., 2016), academic engagement behaviors in college students (Marrs, 2016), social greetings (Chapelain et al., 2015), and with

regard to sports official behaviors (Dawson, 2012; Mills, 2014). Social pressure has also been a factor in how well lonely people interact in social versus non-social situations (Knowles, Lucas, Baumeister, & Gardner, 2015), in prosocial behaviors (Nook, Ong, Morelli, Mitchell, & Zaki, 2016), and with regard to becoming materialistic (Thomas & Wilson, 2016). It is obvious, then, that social pressure and its effect on a variety of behaviors and within various contexts has been a research topic for some time. Yet, there remains a lack of research investigating how societal pressure to change makes people feel.

Social pressure may be gender specific. Chalk, Miller, Roach, and Schultheis (2013) discovered that in whether to exercise, men respond more to peer pressure whereas women tend to be more susceptible to societal pressure because of internalizing sociocultural portrayal of the perfect body type. Poobalan et al. (2012) supported the peer pressure findings by finding that that men tend to exercise more to please others. Still, gender studies fail to investigate how societal pressure to change one's behaviors to be more like one's peers makes these individuals feel.

When a perceived pressure is present, this may affect a person's exercise performance. Carnes and Barkley (2015) found that runners who run alone tend to run faster than when running in a group, but also that being in a group, influences exercise behaviors. That is, people may prefer to exercise in a group, but exercise harder when alone than when in a group. Furthermore, people tend to need some kind of recognition for their efforts and being part of a group allows this to happen, which in turn encourages the continuance of exercising (Hamari & Koivisto, 2015). Also, being in a group

produced happier feelings toward exercising (Dunton, Liao, Intille, Huh, & Leventhal, 2015).

A group does not have to mean many people. A group can mean just one or two of one's friends. Even small groups such as these can unveil social pressure toward a behavior. The results of a study on friends and physical activity revealed that the perceived friend support was directly related to the amount of exercise the individual engaged in (Kim et al., 2015). That is a perceived supporting nature from a friend influenced the perceiver to engage in exercise behaviors. Social influences such as one's friends and peers also made a difference in the engagement of exercise. Wilson and Spink (2009) found that when using a friend-modeling channel, this model was associated with an increased activity level of participants. That is, people who liked to exercise with other people are more likely to be influenced to do so by others who exercise through modeling of their close friends and peers, and through conforming to their social groups' behaviors.

Andreasson and Johansson (2016) describe fitness as its own culture and in this culture the personal trainers help to support a global idea of the perfect body and what it means to be physically fit. People who belong to this "culture" are more likely to heed the societal pressure to exercise. Gyms usually employ young physically fit trainers to help people push through their exercises. These same trainers keep the tempo in special exercise classes as well. All this may be intimidating to the older adult, for there would be a significant difference in their movements and physical abilities. The older adult may feel that they are being pressured or pushed into keeping up with the class. The older adult may not want to disappoint the personal trainer or perceive the trainer's

expectations to go beyond the adults' own mobility or physical comfort levels. Parviainen (2011) investigated the standardization of gym programs and trainers' movements; the results suggested that some of the participants felt stupid trying to keep up with the physically fit trainer and that "the co-motion of the group pushes individuals to cross their physical limits…" (p. 538). Also, other narratives revealed that participants of the class thought they would be insulting the trainer if they did not mimic the trainer's movements exactly or just as fluidly (Parviainen, 2011). Perceived pressures such as these may have negative effects in the long term for the older adult, causing a cessation of exercise behaviors. This could mean that the older adult may not be susceptible to or heed the societal pressure to exercise or perform some form of physical activity to stay active for a better quality of life.

In the current study, I focused on the social pressure to exercise and how this pressure makes the older population feel. The literature on exercise shows that social pressure encouraged exercise behaviors in adolescents 16 to 17 years of age but did not do so two years later when the same group of adolescents turned 18 to 19 years of age (Bunke, Apitzsch, & Bäckström, 2013). It seems that age can be a factor in how well social pressures affect people. For the older adult, social pressure to exercise (or change) may not bear the same strength that it has for younger adult because the older adult is nearing the end of his or her life. Likewise, nor may the health promotion messages that are posed by the healthcare systems and government programs possess the same degree of strength between the different age segments of the population (Poobalan et al., 2012). Yet, to understand the depth that social pressure has on behavioral changes, how people

feel about being pressured into behavioral change, even if these changes promote a better quality of life in the end, should also be investigated.

Hardecker et al. (2016) discovered that children express emotional agitation and moral violations of normal social behaviors. To offer a different perspective, if older adults feel the societal "push" is morally wrong for people of their age brackets, they may be emotionally charged to rebel against the social pressure to become more active or to continue exercising. Furthermore, the societal pressure to exercise as posed by public and media messaging is not a "one-size fits all" type of concept. Poobalan et al. (2012) found that the traditional messages about health promotion were viewed as empty messages and that engagement in exercise among young adults 18-25 years of age was done out of enjoyment rather than to meet social expectations presented by these traditional messages. To help build a healthy older population, the social sciences need to understand how older adults feel about the societal pressures placed upon them to exercise and remain physically active throughout their lifetime.

Summary and Conclusions

The world's population is graying at an alarming rate, which can mean taxing problems for the healthcare industry and government policies set in place to help support the older population (Lee et al., 2011). Presumably, many older adults would like to stay independent for as long as possible and age-in-place, which means being able to stay in their own home. To live on one's own, one must be able to perform activities of daily living (ADLs) that coincide with being able to survive on their own. That is, an individual must be able to bathe, use the toilet, feed and dress themselves, as well as

move about the house from one room to the next. Independence is important to older adults for it counteracts the negative stigmas associated with old age. Negative age-related stigmas, such as cognitive declines, physical weakness, and frailty, can play havoc on the older adult's self-esteem. Furthermore, illnesses often become more chronic in the older population (Heiby et al., 2005). Physical activity, such as exercise, can help older adults live a better quality of life by providing them with the physical flexibility and strength to do so.

The pros and cons (as in benefits and barriers, respectively) of exercise are well documented throughout the literature. The benefits of exercise are not discriminatory; the benefits of exercise serve all ages well. For the older population, exercise can help ward off some of the age-related physical, as well as psychological, maladies, associated with growing old (Burr et al., 2012; Dusdal et al., 2010; McAuley et al., 2010; Rountree, 2010); whereas some of the barriers may be discriminatory. Lack of time was the most common barrier but was not so for all age groups (Lovell et al., 2010; Moschny et al., 2011). It would seem natural that older adults face different barriers to exercising than younger adults, and therefore, take on different attitudes toward the activity of exercising.

The American Heart Association (2014) suggests that to stay in good physical health 150 minutes per week of moderate to vigorous exercise is necessary. This can be achieved through various avenues. One can exercise for 50 minutes three days per week or can exercise for as little as 25 minutes seven days a week. Furthermore, government programs have been put in place to help educate and entice people of all ages to get up and move (National Institute on Aging, 2015; Project Fit America, 2015), with a special

plan specifically addressing the needs of physical wellness for the older population (Health.gov., 2008).

Social pressures can influence the behaviors of a population and do so through various avenues (e.g., peer pressure, conformity, modeling, obedience); once social pressure succeeds in changing a behavior that behavior becomes the norm. In trying to secure a healthier older population, which is increasing in numbers across the globe, the pressure to stay physically fit for as long as possible is on, thus trying to induce that exercise is the norm versus being sedentary in one's life's aspirations. Furthermore, since the benefits of exercise have been shown to reduce diseases, which can lead to morbidity, the push to get up and move is ever growing. Public messages are seen in the media as well as in governmental programs designed to get people moving (e.g., project fit America; Pepsi's Mixify campaign). This chapter has explored how attitudes toward exercise can hinder or support physical activity as well as the role that social pressures have in enticing or leading people to exercise. However, one gap that still needs further exploring is how people feel about the societal pressure to exercise, mainly for the growing older population. The following chapter, chapter 3, explored this gap through a qualitative approach to further the literature as to the roles that societal pressure has on the older population with regard to exercising.

Chapter 3: Research Method

Introduction

The purpose of this study was to obtain a richer understanding of how societal pressure to change affects the older population with regard to exercise and physical activity. I developed this idea from the concepts of a fast-growing older adult population, the proven benefits that exercise provide to living a healthier life, even in the later years, and from the understanding that social influences can create behaviors that become the norm (AHA, 2014; Chapelain et al, 2015, Roundtree, 2010a). Many adults remain sedentary, even when knowing the benefits of exercise. Furthermore, the world is aging on a global level, faster than ever before, as the baby boomers globally reach 65 years of age. Health promoting behaviors such as exercise are becoming more prominent through government, community, private practice, and media disseminations (Kwan & Bryan, 2010). In chapter 3, I will discuss the research design and rationale, researcher's role, methodology (i.e., selection of participants, instrumentation, data collection procedures, and data analysis), trustworthiness issues, and ethical concerns and procedures.

Research Design and Rationale

Creswell (2009) instructs researchers to let their research questions develop naturally and then be the guiding factor regarding which approach they use. The research question for this study was: How do adults over the age of 65 feel about the societal pressure to exercise and be physically active? The research question shows that an investigation needs to take place about a phenomenon, which is being experienced by the

population. For these reasons, a qualitative method was used using the phenomenological approach.

Researchers can employ various approaches to discover pertinent information and offer better interventions toward individuals' well-being. The two main approaches used by researchers are quantitative and qualitative. The quantitative approach is used to test pre-existing hypotheses and/or to examine the effects, if any, that specific variables have on a certain behavior; the qualitative approach is more exploratory in nature (Creswell, 2009). The qualitative approach is used to explore a phenomenon through the eyes of the study's participants to gain a deeper understanding of the phenomenon under study (Creswell, 2014). Qualitative inquiry is usually used when little is known about a topic of study (Creswell, 2009). Maxwell (2013) explained the differences between quantitative and qualitative research designs by the types of questions researchers use to guide the study's purpose. Maxwell stated that qualitative questions ask more about how one thing may affect another, what role does X have in behavior B and what are the processes that may connect the two. Researchers use the quantitative approach to find the extent to which variable A affects behavior B, if at all.

In the current study, I sought to understand how people over the age of 65 felt about being pressured into exercising, exercising more, and generally being physically active for the duration of their lives from social pressures. Because the purpose of the study was to explore a phenomenon, the qualitative approach was the most suitable approach for this study.

Data collection methods also separate the quantitative approach from the qualitative approach. Quantitative studies use experimental processes that allow the researcher to control certain variables within certain contexts (Creswell, 2009, 2014). Quantitative researchers also use various tests that produce numbers that can be compared to each other as a way to rate just how much a certain variable affects another variable (Creswell, 2009). For example, the researcher may use a test to see how much two different age groups who underwent the same intervention differed from each other; or other specific tests that help differentiate which variables were the strongest predictors for the desired behavior(s). Qualitative data collection does not use numbers, nor does it take place in a controlled environment. Patton (2002) describes qualitative data collection as data taken from in-depth interviews that use open-ended questions that allow the participant to tell his or her story.

Qualitative data collection can also come from a researcher's direct field observations, studying and analyzing previously collected survey data, quotations, diaries, public publications, and program information. In the present study, my intent was to use interviews for its data collection, which further justifies the use of the qualitative approach. Qualitative data lead to themes that emerge from interviews of the research participants and these themes are used by the researcher to develop a deeper understanding of the phenomenon under study by becoming the voice of the participants (or population) under study (Creswell, 2014; Patton, 2002). Furthermore, qualitative research is not constrained (as in instrumentation used and analytical devices), which

makes qualitative data collection more open and flexible to provide an in-depth analysis of the data (Patton, 2002)

Creswell (2007) proposed five qualitative research designs. These are narrative, phenomenological, grounded theory, ethnographic, and case study research. Narratives are the lived experiences as told by single participants, which have some sort of timeline or chronological order to them. In the current study, I did not need to be concerned with the chronological order of the lived experience, nor was the study concerned with the single accounts of the experiences of its participants. In other words, time was not a factor and, in this study, I combined all the narratives to find the common theme among the participants about how they felt about the phenomenon under study, so the narrative approach was ruled out.

In the current study I did not seek to develop a new theory, as done by the grounded theory approach (Creswell, 2007; Patton, 2002), therefore, the grounded theory approach was not used. Ethnographic researchers are concerned with culture and it is this cultural lens that separates ethnographic research from phenomenological research (Creswell, 2007). Patton (2002) described ethnography as all the pertinent information one would need to know to become part of a specific group, population, or culture. In the current study I was more concerned with how many different groups felt about a specific phenomenon and was not concerned with what group the participants belong to. Therefore, I did not use the ethnological approach. A case study is a study of a particular individual within a specific context and timeframe (Creswell, 2007; Creswell, 2009). Since in this study I wanted to understand a group's (or segment of the population's)

views, this approach has also been discounted, which left the phenomenological approach.

In the present study, I utilized a phenomenological approach. "The understanding of meaningful concrete relations implicit *in the original description of experience in the context of a particular situation* is the primary target of phenomenological knowledge" (Moustakas, 1994, p. 14). Vagle (2014) defined phenomenology as the study of lived experiences of people with the underlying purpose of discovering what it is like to exist in relation to other people, things, circumstances, or activities. Creswell (2009) called phenomenological research the form of inquiry that unveils the essence of the human experience as it relates to the situation or topic of study as told by the people experiencing it.

Phenomenology is a rich, creative, and often compelling form of inquiry that allows for the elaboration of the lived experiences of people towards specific events (Van Manen, 2014). Like narrative research, phenomenological researchers use stories (i.e., narratives) for data collection. However, instead of focusing on the single story, phenomenological researchers combine all the stories to make one overarching story. The combination of narratives to flush out the common theme is the basis for the phenomenological approach (Creswell, 2007).

The current study's focus was to understand the societal pressure to exercise for those over the age of 65 through the lived experiences of these people and I did so through the use of narratives given by open-ended interviews. The goal of this study was to discover emerging themes among this group of people to gain a richer understanding

of what it means to be pressured into changing one's behaviors at an older age, especially if the behavioral change may not be readily warranted or accepted by the oldest portion of those over 65 (i.e., 85+ in age).

Role of the Researcher

In qualitative research, the researcher is often the instrument (Creswell, 2009; Maxwell, 2013). The present study used interviews for data collection, thereby making me the instrument. As the interviewer, I had to be aware of what my preconceptions of the phenomenon under study were, and how my presence may influence the participants' responses to the interview questions. As Maxwell (2013) suggested, I acknowledged my views and thoughts regarding the phenomenon under study beforehand by writing these preconceptions down and using them as a reference point and as a way of checking that my conclusions were objective. As suggested by Bulpitt and Martin (2010) and Maxell (2013), any previous assumptions that I may have had can cause me to have overlooked portions of data that may not, at first, seem important, or have presented a risk for a missed opportunity to explore a more detailed version of the phenomenon under study. Furthermore, setting aside my preconceptions, beliefs, and prejudgments allowed me to experience the data from a wider lens with an open view and a novice perspective (Moustakas, 1994). A professional relationship did not exist with potential participants because I was not affiliated with any profession that could cross the participant-researcher boundary. However, it is important that I acknowledged the fact that because of where the present study was being conducted (a small rural area) that there stands a possibility of being acquainted with a few of the potential participants. If the participant

was known to me, I politely excused him or her from the study. He or she would have received and explanation of how the school's research review board does not allow family or friends of mine to take part in their studies because of the potential for respondent bias problems that could affect the validity of the present study's conclusions.

I gave every answer equal consideration; no matter what answers the participants gave, I had no judgment regarding them or their responses. In qualitative research it is nearly impossible to eliminate researcher bias and to do so would limit the researcher from insights and validity checks (Maxwell, 2013). Maxwell proposed that it is not the goal to minimize the researcher's influence over the interviewee but to understand *how* the researcher may influence the interviewee's answers.

The participants were allowed to answer the interview questions at their pace and without prompting to do so by me. Each participant received the same pleasant greeting at the start of the interview process, a brief recount of what the study was about and its purpose, and an acknowledgment that the participant could answer all, some, or none of the questions without my judgment. I thanked all participants for their time and effort.

Methodology

Participant Selection Logic

In phenomenological research, researchers often use the experiences of the participants to define the phenomenon through the participants' eyes; phenomenological research can equate to making the participants' voices heard (Creswell, 2009). Qualitative studies such as this one need not have a large sample size (Maxwell, 2013). Maxwell also contended that framing the research question in a case-specific way treats

the target sample not as a sample from the larger population, but rather as a specific case of participants (or a portion of the larger population) to avoid inappropriate generalization. Hence, one specific requirement in participant selection was age: adults 65+ years old. Because I sought to understand how people over the age of 65 felt about the pressure to exercise, the present study employed a purposeful sampling strategy, as suggested by Creswell (2009). Stratification of the sample helped ensure that all the different age groups are represented in this study. Hence, an equal number of adults was sought after, across the different age group segments (65-74, 75-84, 85+) for participation in this study.

Patton (2002) suggested tapping into sources that are readily available to the researcher. The state of Pennsylvania ranks fifth in senior population, and the present study took place in Pike County, Pennsylvania (United States Census Bureau, n.d). I recruited participants from local churches and the local senior center by using flyers, announcements in the church's newsletter.

The flyers and other forms of recruitment contained my phone number as a way to contact me if the person was interested in participating in the study. With these venues, I produced enough qualified participants to address the present study's research question, especially since qualitative research does not need very large sample sizes (see Maxwell, 2013). As suggested by Creswell (2009), the recruitment of participants continued until the responses started to duplicate themselves, adding no further insight to the meaning of the phenomenon under study, as in the saturation point of the data. However, these recruitments could have extended to the general local public via an advertisement placed

in the local paper along with a flyer placed at various public locations (e.g., local general stores, delis, and businesses). I posted flyers for all to see and did not hand them out to anyone in a public area. I posted the flyers on the public bulletin boards that the local businesses offer as a community service. Anyone can post an event and or service without permission on these community boards.

Instrumentation

Interviews are a common way that qualitative studies gather data (Miles, Huberman, & Saldana, 2014). The interviews were semi-structured in nature which allowed me (the interviewer) to keep the interviews on the point of the phenomenon under study. Since I was the researcher, I was also the interviewer. In short, the interview questions (See Appendix A) were designed by me to answer the study's research questions and used as a protocol guide for the interviews.

The interviews took place at a mutually agreed upon public location, such as the public library or a local restaurant or café. All interviews that were held in the public library took place in a private room. Any interview that that took place in the local restaurant or café took place at a table away from the main dining area. The interview was made to look like two friends enjoying a conversation over a cup of coffee. The interview consisted of several open-ended interview questions about the phenomenon under study that helped to provide an in-depth knowledge about the participant's beliefs and experiences about the phenomenon. Thus, the interview guide also became the instrument in the current study. The use of open-ended questions allows participants to speak freely and as a way for me to pursue participants' responses in more detail or for

clarification of what was meant by the respondent's answer. Clarification was obtained by further asking the participant to elaborate on their response. A hand-held tape recorder was used to capture the interview responses verbatim for future transcription. I used a journal for note taking during the interview process. My notes were on the observations made during the interview (e.g., facial expressions, respondent's demeanor, mood), and on the answers to the interview questions.

In general, the interview started out with the introduction of me as the interviewer and a cordial greeting (e.g., Hello, my name is). The participant was asked his or her name only to establish a rapport with the participant, but his or her name was not disclosed in the data collection analysis as to protect the confidentiality of the participants. Numbers were used in the analysis to protect the participants' identity. The questions asked how participants felt about certain aspects of exercise, being told to exercise and to describe their feelings about being told to exercise. Also, the participants were asked to visualize someone exercising and to try and describe the motions that person was making. For example, a description could be that the person was lifting weights or that a person was running. Descriptions of these sorts helped produce a clearer understanding of just what exercise is and means to the participants.

Interviews naturally mean that questions will be asked. In the present study, the questions to be asked addressed the pressure to exercise and how these adult respondents felt about this. The interview questions (Appendix A) for the present study assured that the participants are asked the questions in the same order, with the same tone, and in the same manner. It was my intent to make the participants feel as comfortable as possible

and not to pass judgment on how the participants' may answer, how much time it takes them, or what word choices they may have used. The use of the participants' words, verbatim, would allow for a richer data collection and in turn, a truer understanding of what the pressure to exercise means to these adults (Maxwell, 2013). It was my intent to interview one participant at a time which should take only about one hour of participants' time. However, this may change once the interviews take place or as decided by a pilot study.

Pilot Study

In the present study, I employed the use of a pilot study, to find the weak areas of the study and provide practice at interviewing people, which is important for a novice interviewer such as myself (Seidman, 2016). The recruitment of the participants needed to conduct the pilot study was done with the use of strategically placed flyers in public locations (e.g., general store, hair salons, local deli and cafés, and the senior center). The flyers contained a brief synopsis of the study's purpose, how data will be collected and my contact information for interested participants. Also, advertisements can be placed in local church newsletters and the local newspaper. From this recruitment strategy, it is likely that I would have known some of the people who may have replied, of whom, were able to participate in the pilot study as long as they meet the study's requirements (e.g., age specification).

The pilot study was an informal test for the current study, therefore, for initial participation eligibility, participants should be over the age of 65. Interviews were the main aspect of data collection, and I served as both, the researcher and the interviewer.

The interviews were held at a mutually agreed upon public designation, such as a café, library, or the senior center. The pilot study served to test for background noise that may have become a problem during the interview sessions (Locke, Spirduso, & Silverman, 2014). As the interviewer, I followed interview protocol as set by the interview questions (See Appendix A) and kept a journal for notes. Before the interview sessions, I wrote down my views on the phenomenon under study to prevent any biases and missed opportunities for the collection of rich data (Bulpitt & Martin, 2010; Maxwell, 2013; Moustakas, 1994). Other notes consisted of answers given by the respondents as well as any visually obvious physical movements that occurred by the respondent (e.g., facial expression, slouching, and nervousness).

The main purpose of the pilot study was to work out any potential problems or inconsistencies with the interview process. As the interviewer, I was new to research process and was doing a trial run to help me see where my weaknesses and strengths were as an interviewer and in the data collection processes. The interview questions were developed by me, the interviewer and researcher. Therefore, conducting a pilot study enabled me to see if the interview questions caused any ambiguity and if the questions needed to be written clearer. The pilot study was a way to explore preliminarily research (Bloomberg & Volpe, 2012). Furthermore, a pilot study helped to analyze how well all the procedures (e.g., participant selection, data collection, data analysis) worked in the main study by identifying the weak links, thereby adding strength to the main study's proposal (Bloomberg & Volpe, 2012). Locke et al. (2014) sum the use of a pilot study best by stating, "the modest pilot study is the best possible basis for making wise

decisions in designing research" (p. 76), and "its target is the practicality of proposed operations, not the creation of empirical truth" (p. 78).

Main Study: Recruitment, Participation, and Data Collection

As aforementioned, recruitment for participants was done via the posting of flyers in various public venues such as grocery stores, café's, hair salons, churches, and doctors' offices as well as being posted in the local senior center. The flyers contained a brief explanation of what the study was about, its purpose, and who to contact if interested in taking part in the study. The contact information was my phone number and email address. As a way to safeguard against too few participants taking part in the present study, flyers were given to the Area on Aging to post. To participate in the present study, participants had to be 65+ of age, and have had general cognitive skills. The data was collected through interviews; these interviews were face-to-face or via a telephone call. The latter may have been best for the oldest old participants who cannot drive or have no means of transportation. The interviews lasted about one to two hours each, depending on the response times of the participants, and did not exceed two hours. Interviews were conducted daily, when possible, with no more than two taking place in one day. The interviews were held at a mutually agreed upon public location. If the interview location was a café or coffee shop, the interview took place at a table away from the main dining area and the interviewer offered the participant the option to have a cup of coffee or a small snack and pay for their portion up to the amount of $10.00. All other participants received a $10.00 gift voucher to a local café. Conversing over a snack or cup of coffee may help to relax the participants and help build a productive

relationship with the participants, as does purposeful sampling which is the basis for participant selection in the present study (Maxwell, 2013).

The interview period was a three-month period and ceased when the responses given started to saturate the data with repetitive responses. The data was recorded both by transcription of recorded responses and the written notes taken by myself. I did the transcriptions and looked for any emerging themes among the data that can help give rich meanings to how adults 65+ in age felt about the pressure to exercise (Creswell, 2009; Miles et al., 2014). Upon completion of the interview, participants were reminded of the reason for the present study, asked if they have any further questions or concerns, and given my contact information in case they have questions later. The participants were cordially thanked for their time and asked if they need help to get to their source of transportation. If the participant had to wait for transportation, I waited with him or her, as not to make them feel unimportant in any way. It is not expected that any follow-up interviews will need to take place.

Data Analysis Plan

The interviews were recorded, so the first step in the data analysis plan was to transcribe the audio tapes of each interview. I transcribed the audiotaped data very slowly and line by line as to not miss any wording. I listened to each interview multiple times. Data analysis in qualitative research is inductive; that is, it is built from the bottom up (Creswell, 2009). I took Creswell's (2009) lead and organized the data first into large common themes then broke these themes down into more abstract portions of the data. I grouped the data together by the most common words.

Next, I unveiled more portions of the data by looking for the most common sentence segments along with any odd wording. I compared my written notes to that of the transcribed audio notes as a way to capture every aspect of what the respondents' answers meant. In a phenomenological qualitative study, analyzing each line of any significant statements made by the respondents will help me unveil the meaning behind these statements for a deeper understanding of the phenomenon under study (Creswell, 2009). Furthermore, Moustakas (1994) describes breaking down the data into structural segments to discover the "essence of the experience" (p. 100). I analyzed the data by trying to make sense out of the text and transcribed audio data by diving deeper and deeper into the data and analyzing it on different levels starting with the precise and moving to the general (Creswell, 2009). The data was coded by grouping into common themes which will allow me to step back and see the phenomenon from the respondents' perspectives so that informed conclusions can be drawn (Miles et al., 2014).

Issues of Trustworthiness

Validation and reliability are the backbones of scientific inquiry. However, these terms may vary depending on the methodological approach used, but no matter how validation and reliability are described, these terms all strive for one common goal, that of establishing the trustworthiness of the study (Creswell, 2007).

In qualitative research, dependability and the consistency of the findings are more important than objectivity and reliability (Bloomberg & Volpe, 2012; Creswell 2007). Creswell suggests that confirmability is more valuable than researcher objectivity when trying to establish the dependability and consistency of the collected data. Furthermore,

reliability in qualitative research equates to dependability in quantitative studies (Stadtlander, 2015). In short, dependability means that the results will remain the same and be constant repeatedly with replications of the same study using the same data.

One way to address both the dependability and confirmability data is with audit trails and member checks (Creswell, 2007). In the present study, an audit trail was kept through journaling my experiences as the researcher-interviewer. The journal will set aside my preconceptions and any thoughts that I may have on the topic of study as well as any assumptions that I may carry, and by doing so, I can be "reflexive in my consciousness" (Patton, 2002, p. 41). By doing this, I acknowledged and will become aware of my perspectives toward the phenomenon under study and how my perspectives may affect (or not) the present study (Maxwell, 2013). Notes were taken before and during the interview process that consisted of a description of the interview surrounding areas (e.g., a public place consisting of possible distractions versus a private office or room somewhere), along with any observable actions that may have occurred by both participants and myself. As Patton (2002) suggests, "thick, rich description provides the foundation for qualitative analysis and reporting" (p. 437). Through thick description and reflexivity, dependability and confirmability will occur by allowing readers to come to their assessments and interpretations of the findings of this study (Bloomberg & Volpe, 2012, Patton, 2002; Stadtlander, 2015).

Creswell (2007) indicated validation is "an attempt to access the 'accuracy' of the findings, as best described by the researcher and the participants" (pp. 206-207). Credibility (or internal validity) addresses the accuracy of the data (Stadtlander, 2015).

During the interviewing process, participants received a verbal summary of their answers as an accuracy check. The verbal summaries will be done after each interview question and help ensure the credibility of the data being collected. In the event of uncertainty during the interview process, I asked for further explanation and or what was meant by the ambiguous statement. Data collection took place to the point of no new information being given and when the answers to the interview questions became mutual. I kept detailed records of the participants along with the context in which the interviews were held. The present study used participants from both genders and any race or ethnicity as long as the participants satisfied the criteria set for the present study (e.g. 65+ in age). The use of member checks, saturations, thick description, and participant variation addressed the credibility (or internal validity) and transferability (or generalizability) of the present study (Stadtlander, 2015).

One of the chief problems in research is researcher bias. Along with being reflexive, I used another person (a peer) also to code the data. The peer signed a confidentiality form prior to seeing any of the collected data (Appendix B). Creswell (2007) defined entering into an intercoder agreement to satisfy external checks of a process that relies on interpretations. A code book was developed that will contain the key codes and any sub-codes along with the tentative definitions of each. Intercoder agreement will mean that both coders reach an approximate 80% agreement on the coding of the data (Creswell, 2007). According to Creswell, this does not necessarily mean that both coders use the same verbal segments coding nor bracketing the same passages, but that both coders used the same codes simply by asking yes or no and

calculating the percentage of yes questions. If both coders agree on 80% of the codes, then intercoder reliability would have been obtained. The use of another person's help in coding the data assures the accuracy "that the reality of the participants" will be "adequately reflected in the findings" (Bloomberg & Volpe, 2012, p. 125). If there was coding conflict between both coders, then resolution took place in the form of a compromise between the two coders. A compromise can mean that additional coding categories may need to be added to the code book or that an existing code or category needs to be broadened in its definition. No coding conflicts took place.

Ethical Procedures

In scientific research, the well-being of the participants is always the first concern (Creswell, 2007; Patton, 2002). Therefore, before the present study can take place, Walden's institutional review board (IRB) needs to give its approval that there are none to minimal ethical concerns centering around the study's participants, recruitment methods, data collection, and what will happen to the data after the study is completed. Maxwell (2013) believes that ethical issues are a concern in all aspects of a study. However, most of the time ethics are more of concern for the methods section. The IRB approval number for this study was 05-25-17-0399250. Stadtlander (2015) suggested that in qualitative research, everyone is treated as: a). autonomous agents with the right to choose for themselves, b). given the same amount of courtesy, and not ever feel a sense of coercion to participate, and c). be able to participate if they want, no matter their race, gender, age, or ethnicity. Furthermore, any potential conflicts of interest should be thought about, and thereby noted. For privacy and confidentiality issues, an informed consent form was

signed prior to taking part in the study by all the participants. It is also recommended copies of all forms along with any written papers used to recruit participants to be included in the original study proposal (Patton, 2002; Stadtlander, 2015). Hence, a copy of the recruitment flyer and any other forms needed were also included in the present study's proposal submission as appendixes. Since the present study will make use of an intercoder (a peer), this person signed a confidentiality form (see Appendix B) before helping with any coding and or analysis of the data obtained from the interviews.

For phone interviews, the consent form was mailed to the participant with instructions to call me to set up the interview. The process of calling me served as "consent." To ensure the privacy and confidentiality of the participants, numbers, not participants' names, were assigned to each interview transcript. Each participant was reminded that their participation was voluntary and he or she had the right to withdraw from the study at any time without judgment. If a participant withdrew, he or she was thanked for his or her time. The predetermined form of compensation (i.e., $10.00 voucher to local café) was given whether the participant remained in the interview or withdrew. All participants received an explanation of the possible risks and benefits that may occur from study participation.

Any time research is conducted, some risk occurs; it is the magnitude of the risk that is the ethical concern (Patton, 2002). The present study focused on adults 65+ in age. If a potential participant is secretive about his or her age, taking part in this study may evoke some emotional stress. In general, participation in interviews or research normally is emotional stressful (Patton, 2002; Stadtlander, 2015). The topic of study was not

sensitive in nature and therefore, little emotional stress was anticipated. However, the participants were made aware of the potential for minimal emotional stress because of their participation. An exit package containing counseling resources (e.g., phone numbers and contact info to services) was given to every participant to address any potential emotional stress or possible stigmatization that may have occurred from taking part in the present study. All participants received assurance that there are no wrong or right answers to the interview questions and that their responses will be considered private and held in confidence. All the participants were told that the data collected will be kept in a locked secure location for the required amount of time; which at the end of, it will then be destroyed. All participants were asked if they want a copy of the study and its findings, those that did will receive a copy in the mail after the study.

Summary

The present study sought to explore what the pressure to exercise means to and how it is defined by adults over the age of 65. The present study used a qualitative phenomenological approach because of the lack of research available on this topic. The use of phenomenology allowed me to not only to understand the phenomenon under study through the eyes of those who are living it but also provided a clearer meaning of the phenomenon using description (Creswell, 2007; Moustakas, 1994). Interviews were the main source of data collection. Mainly, structured open-ended interview questions were used. Structured open-ended interviews help reduce variation that may occur during the interview process (Patton, 2002).

No actions were taken toward carrying out this study until IRB approval had been given. An account of any preconceived assumptions made by me (both interviewer and researcher) was kept in a journal for reference. Ethical issues were addressed with the use of consent and confidentiality forms. A predetermined set of topic questions helped keep the interview on track as well as provide the interviewer with a viable checklist to make sure all the desired points of discussion were touched upon. Participant recruitment was done via a flyer placed in local venues around the community as well as possible any neighboring communities. No participant was coerced into participating, nor was he or she coerced into continuing the interview, should he or she have wished to withdraw. The data was coded by myself and one of my peers to avoid bias. The following chapter, chapter4 discusses data collection and analysis, identifies the settings and give the demographics of the participants. The results of the data will also appear in chapter 4.

Chapter 4: Results

Introduction

The purpose of this qualitative study was to examine how adults age 65 and over feel about the growing societal pressure to exercise. I conducted one-on-one interviews to delve into these adults' thoughts and feelings as a way to gain insights about how this phenomenon may or may not affect adults aged 65 or older. I used three research questions with each research question consisting of separate interview questions developed especially for that research question. The three research questions were as follows:

- How do adults over the age of 65 feel about the societal pressure to exercise?
- How do older adults feel about the public campaigns designed to increase and make exercise the norm?
- How do older adults' opinions vary by decade of life toward exercise and or the pressure to exercise?

In this chapter, I discuss the pilot study, study settings, participant demographics, data collection and analysis, and issues of trustworthiness. I present the study results by research question and the theme(s) that surfaced for each as a result of the participants' answers to the interview questions that pertained to each research question.

Pilot Study

Before data collection for this study, I conducted a pilot study. The pilot study's purpose was to test for the understandability of the interview questions, the mechanical

function of the tape recorder used to record the interviews, and to become acquainted with the interviewing processes. When an interviewer is a novice, practice interviews are significant for practice provides a way to ensure that the interview process remains consistent for each participant (Seidman, 2016). Three neighbors agreed to participate in the pilot study. Each participant signed a consent form before the interview process begun. I conducted the interviews in a mutually agreed upon area previously described in Chapter 3. The pilot interview data were recorded without any difficulties. Because there were no changes needed to the interview questions and the recordings were audible throughout the pilot study, I considered both the interview questions and the tape recorder device to be trustworthy and working suitably. Therefore, data collection began without making any changes.

Setting

The study's interviews took place primarily in a secluded room of the local library. The room had a door, which was closed during the interview process. Two of the interviews took place at a local café, where I and the participant were seated away from the main dining areas. The interview was made to look like two people having a general conversation. No interruptions took place during these two interviews by waitstaff or other people. I greeted all participants courteously and treated them with respect; all the interviewees seemed to be very comfortable with the surroundings as well as the interview process.

Participant Demographics

I conducted 17 interviews in total. The age range of the participants in this study was from 65 to 95 years of age with mean age of 75.9 (standard deviation = 8.5 years of age). Table 1 details the general demographics collected from each participant. Participants represented 4 decades, and these were as follows: the 60s age range had five participants, 70s had seven participants, 80s had four participants, and the 90s had one participant. The study consisted of 17 participants of whom 10 were women, and seven were men, thus providing an adequate gender distribution. All the participants were Caucasian. A code was assigned to all participants to protect their identity, that consisted of the letter "M" for main study participant and a subject number from M001 to M017. All participants volunteered; that is, no one was directly asked or approached for an interview. Each participant was given two copies of the consent form before the interview started. One form was to be signed and returned to the researcher; the other copy was theirs to keep. I assumed that all the participants answered the interview questions honestly. The interviews varied in length with an average time of 45 minutes from start to finish. The approximate range of interview times was between 45 and 60 minutes.

Table 1

Participant Demographics

	Age	Gender
M001	95	Female
M002	66	Female
M003	66	Female
M004	82	Male
M005	77	Female
M006	70	Male
M007	69	Male
M008	66	Female
M009	65	Female
M010	83	Male
M011	74	Female
M012	78	Male
M013	76	Female
M014	74.5	Female
M015	78	Male
M016	87	Male
M017	84	Female

Data Collection

I conducted 17 interviews for the data collection process. Ten of the interviewees were women and seven were men. On average, the interviews lasted approximately 45 minutes. Scheduling and conducting the interviews took approximately 5 weeks. Before the beginning of each interview, an extra 10 – 15 minutes was set aside to explain the nature of the study and the informed consent form. Before the interview, each participant was given an informed consent form to sign and asked if he or she had any questions about the form or the study. Each participant was told that there are no right or wrong answers to the questions and that all the interviews would be taped for transcription purposes only. Every participant was told that he or she would receive a $10.00 gift voucher to a local café or restaurant as compensation for having taken part in this study and that the coupon would be given even if he or she decided to withdraw from the interview. I started each interview with a cordial greeting and introduced myself as the interviewer. Next, each participant was asked to state his or her full name, address, and age. The main criterion for this study was that the participants needed to be 65+ in age. All 17 participants fully completed the interview. All interviews were conducted face-to-face. All participants appeared to be enthusiastic about sharing their experiences on the societal pressure to exercise. The majority (15 out of 17) of the interviews took place in a room at the local library. The remaining two took place at a local café away from other customers.

All participants were told that the interviews would be recorded before the start of each interview. I explained that the recordings would be heard only by me and that this

was solely for transcription purposes. No more than two interviews were scheduled in 1 day. I used the interview guide proposed in Chapter 3 as the data collection tool and it consisted of open-ended questions specifically designed to provide data to answer the three research questions guiding this study. I followed the interview questions in the same order and asked them in the same manner for each participant. When needed, I would ask for clarification or redirect the conversation back to the questions at hand. A few of the participants mentioned that they wanted a copy of the study once it had been completed and published.

Transcriptions of the recorded interviews took place soon after each interview. I followed the data collection method described in chapter 3. Each participant was mailed a copy of his or her transcribed interview to review. Only one wrote back to ask to take out the word, "not" on his answer to question 3A, which I did. Otherwise, no unusual circumstances arose.

After the completion of the transcription process, I coded the data. The codes were categorized into patterns and then into the emergent themes. There were three RQs that guided this study and are as follows: RQ1). *How do adults over the age of 65 feel about the societal pressure to exercise?* RQ2). *How do older adults feel about the public campaigns designed to increase exercise and make exercise the norm?* and RQ3). *How do older adults' opinions vary by decade of life toward exercise and or the pressure to exercise*?

Each RQ produced an overarching theme or themes. For instance, RQ1's interview questions produced four overarching themes. RQ2 and RQ3's interview

questions produced one overarching theme each. Inclusively, six overarching themes evolved from these three research questions.

The first four themes that emerged from RQ1 were as follows: 1. Physical activity means being active, whereas exercise is seen as a necessity for good health or to stay healthy. 2. People who are active and or exercise usually look physically fit. 3. The suggested amount of 150 minutes of moderate to vigorous exercise is doable. 4. Being pressured or told to move more or exercise can produce mixed feelings among certain adults age 65 and over. The majority of the participants gave descriptions that meant that, while acknowledging that exercise and physical activity have various health and physical benefits, being told or pressured to do so is not always welcomed. Most alluded to the idea that it would depend on who was doing the telling.

The fifth theme to emerge came from RQ2 and was that media could be a viable basis for exercise educations as long as it is not selling a device or pill. While the majority of the participants believe that advertising is mostly selling something, it can also serve as a good way to show others how to exercise or even serve as a way to entice people to exercise. Many felt that commercials showing older adults exercising were a positive idea and experience. Surprisingly, while commercials were deemed a viable source for motivation, public government campaigns to get people to exercise were not viewed as "for them" and therefore, ignored. The final theme to emerge came from RQ3 and was that throughout life most have recognized the societal pressure to stay active and the benefits of exercise but feel that these views can change as one grows older. I used these six themes to guide the results discussion of this study.

Data Analysis

I placed the collected data from the interview questions in broad categories by treating each question's answers separately, which meant that all the responses to the first interview question designed for each research question were compiled together, and then like or similar responses were grouped together. I followed the same procedure for interview question two, three, and so on until all 23 were arranged and all the central themes emerged. In total, there were 23 interview questions. Each RQ had its separate group of interview questions starting with the number 1. The breakout of the number of interview questions to research question was as follows: RQ1 had 12 questions; RQ2 had seven questions, and RQ3 had four questions. Each RQ produced an emergent theme, except RQ1, which created four themes. The emergence of four themes for RQ1 occurred because RQ1 had the most interview questions and these questions were broad in scope by comparison to the other RQs.

As coding progressed, I noticed that some of the interview question answers could be further grouped together. For example, under RQ1, the expressive answers for questions asking them to describe the person doing a physical activity were combined with the descriptions given for exercise to produce the first emergent theme of: physical activity means being active whereas exercise is seen as a necessity for good health or to stay healthy. The second emergent theme to come from RQ1 was: people who are active and or exercise usually look physically fit. I arrived at this by combining the descriptive answers of what people look like that are doing exercise and physical activities.

The two interview questions that focused on the recommended exercise amounts and the exercise amounts that the participants were currently doing or that they did produced the third theme for RQ1: the suggested amount of 150 minutes per week of moderate to vigorous exercise is feasible. Likewise, all the questions about being pressured into exercise were combined to produce the fourth emergent theme under RQ1, which was: being pressured or told to move more can produce mixed feelings among certain adults age 65 and over. The remaining two themes were: media can be a viable basis for exercise education as long as it is not selling a device or a pill from RQ2, and while many acknowledge the goodness of exercise, one's views toward exercise and or being told to exercise can change as one grows older from RQ3. I followed this process throughout the study and for all the interview questions.

I took the discrepant cases into account during the coding process with the acknowledgment that not everyone held a positive attitude toward exercise. In general, the majority of the answers were positive. There were very few negative comments or non-answers to the interview questions. However, there were a few cases where the participants' answers were negative because of their immediate physical abilities (i.e., bad knees, excessive weight, spinal stenosis). For these participants, the mood was melancholy in that they wished that they could do activities and or exercise. Likewise, for the avid exercising participants, they felt that all the societal and media messages to move more and or exercise were not geared toward them, which was also the case for the participants who felt that their family responsibilities and chores kept them active enough. Many of the exercising participants also felt indifferent to the question

surrounding their peers exercising while they did not, which was asked as a hypothetical question in their cases.

Evidence of Trustworthiness

Stadtlander (2015) described credibility as the accuracy of the data. In this study, I established credibility by spending ample time with participants to produce an in-depth exploration of their feelings and thoughts about the phenomenon under study. When needed, I asked for clarification of a word or sentence before moving on to the next interview question. All the interviews were taped and later transcribed by me. All participants were given a copy of their transcriptions for sentence and response verifications.

The trustworthiness of a study relates to the accuracy in which the study was conducted and how the data was treated. In a qualitative study such as this one, consistency and dependability outweigh objectivity and reliability (Bloomberg & Volpe, 2012; Creswell, 2007). In this study I used Creswell's (2007) suggestion of audit trails and member checks as a way to address both the dependability and confirmability of the data. The audit trail consisted of the data and notes on how the data was condensed and analyzed so that the present study can be duplicated by others and come to the same conclusion(s). Notes were taken by me on the surroundings as well as to any facial expressions, body movements and voice tones during the interview process to provide a thick, rich description of the data, which, as suggested by Patton, (2002), is essential in qualitative studies. The data was collected to the point of saturation, that is, no new data was produced from the interview questions and the answers given became repetitive.

Stratification was achieved by having sufficient participants (17) from various age groups; that is, ages ranging from 65 to 95 years of age.

Transferability (or external validity) lays its focus on how well a study's findings can apply to other contexts and how they fit into the scientific world (Miles et al., 2014). In short, it is on how well the findings of this study will pertain to the general population. The variation in age of the participants was sufficient enough that there may be some transferability as participants interviewed ranged in age across four decades of life (65 – 95 years of age). However, general transferability was limited by the lack of various ethnicities among the participants.

Researcher bias is often a concern in a scientific query, and this was addressed with journaling and using another person also to code the data. A journal was kept of my feelings, assumptions, and thoughts toward the phenomenon under study, which, as suggested by Patton (2002), allowed me to be consciously reflexive when transcribing and coding the data. I developed a codebook along with the codes' definitions. In addition to me coding the data, one of my peers was called on also to code the data using the same codebook. According to Creswell (2007) using an intercoder is a satisfactory way to check the data externally. An intercoder agreement would mean that both coders reached an approximate 80% agreement of the data; the present study had a 100% agreement in data coding.

Results

The three research questions that guided this study were: (RQ1) *How do adults over the age of 65 feel about the societal pressure to exercise*. (RQ2) *How do older*

adults feel about the public campaigns designed to increase exercise and make exercise the norm, and (RQ3) *How do older adults' opinions vary by decade of life toward exercise and or the pressure to exercise?* As mentioned above, the data collected from the participants revealed six main themes. The first research question was answered with the emergence of four themes; three of the themes focused on exercise, and its meaning, and the fourth theme focused on the societal pressure to exercise. The participants gave definitions for exercise and physical activity, what these meant to them, and descriptions of people conducting such acts, along with their views on being told to exercise more (as in pressured) by whomever. Various types of people were included in the interview questions, such as family members, spouse or significant other, and health professionals (i.e., their physician, personal trainers).

The second research question's focus was on the public campaigns designed to entice people to exercise and make exercise the norm and was answered as the participants told of their perceptions of these campaigns. The final research question's theme became apparent as the participants reminisced about their views of exercise when they were younger and how these interpretations compared to how they feel about exercise in the present day. The following sections will address the emergent themes by the research question that the theme(s) pertain to.

Research Question 1: How do adults over the age of 65 feel about the societal pressure to exercise?

Theme 1: Physical activity (PA) means being active, whereas exercise is seen as a necessity for good health or to stay healthy.

To arrive at an accurate understanding of this question, it was essential to understand how these older adults viewed and defined exercise and physical activity. Thus, the first theme to emerge was on the differences between these two terms for the older adult participants in this study. While many may use the terms exercise and physical activity interchangeably, that was not the case in this study. Hence, older adults viewed exercise as a necessity for good health; purposeful movements to build muscle and maintain weight, whereas physical activity consisted of various events that kept a person moving and limber and for fun (e.g., walking, sports, housecleaning, gardening, yoga). For example, a 74-year old woman described physical activities as "taking care of a household, back and forth, back and forth as part of my day" and described exercise as, "moving your body" (M011). Another woman, 76 years of age, felt that PA meant "walking, jogging, fitness classes, tennis, any sport that elevates your heartrate" whereas exercise was described to mean "is your wellbeing" (M013). One 74.5-year-old woman differentiated between PA and excise with the meaning of PA as, "doing my garden" and exercise's meaning was stated as "keeping in shape" (M014).

While exercise and PA were seen as beneficial, the differences lay in the duration. For example, a 65-year-old woman defined PA as, "it is any activity that keeps a person moving" and described exercise as "they have to do it continuously" (M009). The meanings to PA and exercise were shared with a 66-year-old woman's responses of "It's moving around" for PA, and for exercise "exercise means, um being in shape and it's done daily. It means exercising every day" (M008). Furthermore, PA was varied in activity whereas exercise was seen as more repetitive motions for a specific reason. For

example, a 66-year-old woman defined PA as "walking, going up and down stairs" and exercise as "repetitive motion" (M003). Although the majority of the responses were positive, two negative response arose. A 70-year-old man M006 defined exercise negatively as "a lot of work" (M006). A 78-year-old man held the negative notion that PA "means that I have to force myself to do it and I avoid doing it" (M012).

Theme 2: People who are active and or exercise usually look physically fit.

When asked to describe what the person doing the physical activity or exercise may look like, the majority agreed that these people look physically fit and in shape. Participants responses ranged from the person having better muscle tone, being in good physical shape, and of normal weight to statements about age, enthusiasm, lack of pain, and health. For example, a 69-year-old man described, "better body muscle tone" and "usually look younger in age than they actually are" (M007) and mirrored with a 77-year-old woman's response of, "maintaining strength and ability" (M005).

The lack of pain reference came from a 74-year-old woman who described a person who was exercising as, "someone who can move…not showing signs of discomfort or pain or dismay while they're doing whatever they're doing" (M011). She further went on to say that the person "has enthusiasm about moving" (M011). A 78-year-old man summed it up with his broad description of, "the person is moving his own body…well, anywhere from enjoying yourself to straining" (M015). However, a few felt that the descriptions should be based on what the person was doing and that there is no specific type of description for such a person. As stated by a 66-year-old woman M009 that there is "no one description" (M009), and also as stated by 95-year-old woman "that

everybody is different, and they all have their own routines" (M001). These two women's statements were further supported with a 76-year-old woman's response of, "I don't think there's just one description…skinny, fat, short, black, white, male, female" (M013).

Theme 3: The suggested amount of 150 minutes per week of moderate to vigorous exercise is doable.

The American Heart Association (AHA) and the World Health Organization (WHO) suggest that 150 minutes of moderate to vigorous exercise is instrumental for good health and to maintain one's general well-being (AHA, 2014; WHO, 2010, 2016). Interview questions asking how the participants felt about this statement along with their descriptions of the exercises that they are currently doing or have done in the past helped to develop theme three.

Twelve of the 17 (70.6%) participants currently exercise for two or more hours per week, with 14 of the 17 (82.4%) participants exercising in total. Although some described their exercise time in hours only, seven of the participants went on to mention how many days a week they did exercise. Hence among these seven, the average days spent exercising was 5.25 days per week, which meant that each one satisfied the suggested amount of 150 minutes set by the WHO and the AHA. For example, A 87-year-old man stated that he exercised "five days a week, five hours is 300 minutes" (M016). A 74-year-old woman stated, "I would say four times per week… Each time, it's 45 minutes" (M011). A 78-year-old man stated that he exercises "somewhere about 350 to 400 [minutes]" and for "about six days a week" (M015). Others listed minutes of 200 or more, which would presumably mean that they too exercised several days a week. Of

the 14 participants who stated that they are currently exercising, nine of them were women, and five of them were men. The age ranges of the participants that said they exercise were between 65 – 95 years of age with the mean age being 75.9 (SD = 8.5) years of age. Only three participants stated that they currently do no exercise, of which, one was a woman. However, these three participants all stated that they used to exercise. When asked what changed to make them stop, a 70-year-old man stated it was, "a heart condition" (M006), and both a 69-year-old man and a 74.5-year-old woman stated that "no time" was the culprit (M007, M014). Both of these participants had lifestyle changes that changed their ability to engage in exercise. When asked how they felt about the WHO's and AHA's statement about 150 minutes of moderate to vigorous exercise, the majority of the responses were positive and most agreed with the statement. Thirteen of the participants agreed with this amount; three participants felt it was too much for one person to do for everyone is different and knows his or her own body, and one person thought it was not enough.

Interestingly, the three participants who do not currently exercise, thought this statement was a good one and the amount was very achievable, even though they did not exercise at all. Except for the one non-exerciser who refrains because of health issues, the other two had previously stated that they do not exercise anymore because of a lack of time. However, in appearance, both these participants were of a reasonable weight for their body type and frame. Both had mentioned that they have good health reports. It may be possible that even though they do not currently exercise, that they do not view the WHO and AMA's suggestion to do so as directed at them. Furthermore, when asked how

likely they would be to heed this suggestion, the 69-year-old man stated, “to heed would be high, to actually execute would be low” (M007). A 75.5-year-old woman answered this question as, “Well, it’s according to if I want to. You know, I don’t follow everybody; what people tell me” (M014). There was one 87-year-old man who stated, “Oh desperately. I, in fact, I try to do much more than 150 minutes” (M016). His 84-year-old wife (M017) mentioned that she would heed this statement, “more now than 10 years ago” (M017). When asked why, she responded, “Because I had two shoulder replacements and two knee replacements, and I don’t know whether exercise would have prevented them, but they [it] helped after” (M017).

Theme 4: Being pressured or told to move more can produce mixed feelings among certain adults age 65 and over.

As a starting point for reference, participants were asked to reflect on their feelings while considering themselves to be active and on how they would feel when asked to exercise more and to exercise more often. Next, came several questions that added different people into the mix as the “tellers.” For example, one question asked how participants would feel if being told to move and exercise more came from a family member; another question incorporated a healthcare professional, and then finally a query with the spouse or significant other as the person giving the direction was posed. What the data revealed was a little surprising. The feelings were mixed, that is, some were negative, and some were positive. However, the surprise came in who was giving the directive. It seemed to depend on who was doing the telling as to whether the direction

was viewed positively or negatively. Also, when asked if they would follow these instructions, again, it mattered who was giving the directive to exercise more.

In general, being told to exercise more elicited negative feelings toward the person giving the directive and also toward oneself. The majority felt that people should mind their own business. When the directive came from a healthcare professional, surprisingly, the feelings were mixed and tied between taking the direction as a positive notion and wanting an explanation as to "why" the healthcare professional felt this way. One man showed concern with his statement of, "I would discuss it with him. Why, what area of the body does he want me to do more exercise with…and worried too" (M016). Generally speaking, the majority felt that the healthcare professional was looking out for their best interest and probably would comply or try to comply with the request. Interestingly though, those aged 65-73 said they would agree with their physician, while those aged 74 and older wanted further explanations as to why the physician felt the way he did about them needing to exercise more. This may pose a question for future research in how age interacts with the societal pressures to exercise or move more.

However, when a family member (sister, brother, child) was the person telling them to move more, the majority of the participants gave negative feelings toward this directive. A 95-year old woman responded, "Mind your own business" (M001). A 74.5-year-old woman sarcastically responded, "…I would look at them twice and say, 'Oh, yeah, right'" (M014). A 74-year-old woman mentions she would experience feelings of dismay for she is thought to be the exerciser in the family and took on the attitude of practice what you preach with her statement of "like, um, physician heal thy self…"

(M011). Two men also shared these negative feelings. A 78-year-old man said, "I would not like to be told what to do by family members" (M015), whereas an 87-year-old man reported, "I would feel as if it [was] none of their business" (M016).

Probably the most surprising finding in this area was with regards to the spouse or significant other being the person doing the telling. While eight out of 17 (47.1%) participants reported positive feelings in response to this question, none of these eight felt that any explanation was needed as to why the spouse or significant other would tell them that they need to exercise or move more. So, while these participants would question a healthcare professional's directive to exercise more, these same participants would not question the same instruction from their spouse. This last sentence was an interesting find for all the previous questions of this nature yielded responses of the participants wanting more explanations as to why the person felt the way he or she did. What was even more interesting was that the men reported that they would listen to their wives' suggestions to exercise more whereas the women reported less adherence to their husbands' suggestion to exercise more. One 87-year-old man summed it up by stating, "Then I would listen to my wife…like I try to most of the time. I think that she knows me well enough to suggest something that is important and useful for me" (M016). Two men, a 78-year-old man, and a 69-year-old man felt that "I'd feel that they [she] was looking after my best interest" (M007; M012). The 69-year-old man took it a little further by adding, "I really should consider exercising" (M007). Not all men were so freely willing to listen to their wives. One 78-year-old man reported, "that might be a little bit more, uh, challenging"

(M015). However, he would not completely discount his wife's directions by stating, "… but I would take it under advisement" (M015).

To dive deeper into the role people may play in whether or not someone exercises more, several questions were asked on how much these different people's directives would influence the participant to do so. Staying consistent with the same three persons (family member, healthcare professional, and spouse or significant other), only the healthcare professional would be able to exhibit influence over these participants to more or exercise more. In fact, 12 of the 17 participants (70.6%) reported that a healthcare professional's direction to move more would, in fact, cause them to do just that. When it came to peer pressure as in their friends are exercising, and they are not the majority, eight out of 17 (47.1%), felt complacent about this and it did not matter much to them either way – eliciting negative or positive feelings. When it came to the family member as the influential cog, the feelings were mixed for 12 out of 17, (70.6%) with half of the 12 participants stating that family members have no influence over them and the other half stating that they had more influence over them to move and exercise more.

Research Question 2: How do older adults feel about the public campaigns designed to increase exercise and make exercise the norm?

Theme 5: Media can be a viable basis for exercise education as long as it is not selling a device or pill.

Messages portrayed by the media on enticing people to get up and move or exercise more had an overwhelmingly positive response as long as it was not connected to or associated with any exercise device, program or pill. Many of the participants were

suspicious of advertisements or programs that introduced a new device, exercise program or capsule. The majority of the participants felt that media commercials or messages that were linked to a device, pill or program were gimmicks and a waste of one's money. An 82-year-old man stated, "You know you have these gimmicks. They say this will burn off fat, and I don't believe it…. They're selling stuff, and it's a marketing gimmick" (M004). A 66-year-old woman reported that while it may work for some people, that, "it's not for me" and that when it comes to duration, it "usually doesn't work for too long" (M003). An 87-year old man said, "to some extent, I think what is peddled on TV, most are scams" (M016), and his view was shared by an 87-year-old woman who stated, "I think they're all a joke" (M017). One 76-year-old woman adamantly stated, "People have strange concepts about what will help them exercise. They are always willing to look outside rather than inside [themselves]. So, I don't hold a lot of prudence to that stuff" (M013).

However, when asked about their feelings on commercials showing people exercising and more specifically, older adults exercising, the consensus was an overwhelmingly positive one. A 66-year-old woman reported, "It makes me feel good because they should be…and I'm glad that people are telling them to do it" (M002). These feelings were shared with eight out of the 17 (47.1%) participants in that seeing a commercial or advertisement of people doing exercise elicited positive thoughts and emotions. One 78-year-old man stated, "I feel that it's a good thing that they're doing it" (M012), while an 82-year-old man stated, "It's a good idea. Everyone should exercise, I believe that strongly" (M004). When the commercials had older adults in them, seven

out of 17 (41.2%) participants felt that these types of commercials were a good idea. A 77-year-old woman enthusiastically stated, "I think it is great! I think it's terrific! It's a very good example for them" (M005). The positive feelings associated with seeing older adults in exercise commercials were spread across the age brackets. A 66-year-old woman stated, "Great. I think it's wonderful" (M008). A 78-year-old man stated, "I think that's very nice" (M015); an 87-year-old man stated, "I feel good about that" (M016), and this was supported by an 82-year-old man's statement of, "It's a good idea, they're keeping in shape"; while a 95-year-old woman shared, "I think that they're taking good care of their bodies" (M001). Only one participant with health issues had negative feelings about this type of commercial for he related personally to it by saying, "I feel like, if they can do it, why can't I?" (M006).

Some participants felt that the commercials showing older adults doing the exercises would serve as an example and as a way to help teach older adults that exercise is still possible in one's later years. Two 66-year-old women stated, "I'm glad to see that…they don't realize it would help them to do it" (M002); I think it's a good example to say that even if you're older or even if you have some health issues, there is probably an option that would work for you" (M003). A 77-year-old woman supported these statements with her reply of, "It's a very good example for them" (M005).

When asked their thoughts and feelings on commercials that *encourage* people to move almost half of the participants reported that they had positive attitudes or views toward them. Eight out of 17 (47.1%) participants felt that commercials that promote movement in the general public are "good" and "good for the country" (M016); "…is a

good thing" (M009); "…a very good thing to have" (M003); "…they should" (M017); "…they're good, OK if they can do that for people" (M015), and "a great idea" (M004). One 76-year-old woman went as far as to state, "it's about time" (M013). One 77-year-old woman looked at these types of commercials as a necessity of life with her reply of, "I think they should" (M005).

What was surprising, even among those participants that exercised, was that the majority of the participants did not know how much exercise it takes to maintain a healthy body. When asked if they knew how much exercise was needed to stay healthy, more than half, 9 out of 17 (53.4%), said they did not know but ventured a guess of approximately 30 to 45 minutes, and that exercise must be done daily. The participants were correct, in that 30 minutes meets the recommended daily amount (CDC, 2015). However, the type of exercise thought to be appropriate seemed to vary some by age. Those over 80 years of age seemed to think that walking was probably the best form and used their own bodies as a gauge on exercise difficulty. A 95-year-old woman and an 82-year-old man reported that while they did not know how much exercise was explicitly needed, that they used their bodies to determine how much exercise they should do per week (M001; M004). An 83-year-old man reported, "well at my age I would say walking is about the best and that would be half hour, 45 minutes" (M010). For the four participants that knew the exercise amounts, two said reading articles in local papers and magazines (mainly fitness), were the way that they found out the required amounts. One knew from her profession as a personal trainer, and only one, a 74-year-old man, noted a

television commercial by having stated, “I’ve heard it on TV, I’ve heard that 30 minutes of walking a day, uh, is a good activity for seniors” (M010).

As for the media messages geared to entice or make people get up and move, 10 out of 17 (59.2%) of the participants felt that these types of messages were not directed toward them. Surprisingly, this was true for a 74.5-year-old woman and a 78-year-old man who did not currently exercise. However, on the other end of the spectrum, there were five participants who did currently exercise who felt that these messages were meant for them, which left one participant who was not sure and one who never heard of any such media messages or government programs for enticing people to get up and exercise.

Research Question 3: How do older adults’ opinions vary by decade of life toward exercise and the pressure to exercise?

Theme 6: Exercise is seen as good; views toward being told to exercise and on the focus of exercise in one’s life changes with age.

The answers to four interview questions guided the data that brought to light theme six. The first two were of a general nature (i.e., what is your general view on exercise; what is your general opinion on being pressured into exercise by…) to help set a baseline. The last two questions had participants reflect on how they thought they felt earlier in their lives with regards to exercise and the societal pressure to exercise. Exercise, on the whole, was perceived as good, but being told (as in pressured by media and the public domain) that one needs to exercise or move more was not received positively among the participants. In fact, 10 out of 17 (59.2%) took the stance that it is

not welcomed, no matter who is telling them (e.g., physician, family, media, government). Secondly, seven of the participants felt that exercise motivation should be of an individualistic nature. A 74-year-old woman stated, "it has to come from within" (M011). An 83-year-old man felt that while the message may be for his own good that it is, as he stated, "It's up to me really, it comes back to me, as the individual" (M010). It may be said that if the idea to exercise is not the individual's idea that no amount of societal pressure or pressure in general, will make exercise a normal part of that person's life. For example, a 76-year-old woman replied, "If the person isn't into that for himself or herself, it's just not going to happen. And if it does happen, it will happen for a week or two …then it's over: (M013). A 66-year-old woman supported this notion with her reply of, "ultimately, I don't think that anybody can make you do something you don't want to do (M008). A 65-year-old woman further supported this with her reply, "well, pressure is negative, so if someone pressures people, people will pull away. So, I think you will lose people if you pressure them" (M065A). A 78-year-old man countered the previous statements as he replied, "…different people respond to different modalities…some might respond to a commercial…or a healthcare professional might say something, …trigger something" (M015). One 66-year-old woman stated, "I think it's a motivation, but it's gotta come from you" (M003).

As people grow, age and experience all the changes that occur during the lifespan, their views and beliefs about certain phenomena can also change. The reason for taking part in certain behaviors may also change. For example, younger adults tend to engage in exercise-related behaviors more for enjoyment purposes, whereas older adults may

engage in exercise behaviors out of necessity to stay strong, fit, and even mobile (Poobalan et al., 2012). The reflective responses of how the participants felt about the societal pressure to exercise now versus a decade ago helped to support this statement. Ten out of the 17 (59.2%) participants said that they had different views about exercise and the societal pressure to exercise now, then they did when they were younger. One 66-year-old woman reflected that her lifestyle was such that even if she wanted to heed the societal pressure to exercise, she could not mostly because of a lack of time. She stated, "…I know I should be, but I can't …but now I would be more inclined to say 'yes'" (M003). Likewise, some felt that they would have ignored the societal pressure to exercise because of their age but pay closer attention to the pressure as they grew older. An 82-year-old man replied, "I think it's very important at my age to exercise as a senior. Ten years ago, I didn't think it was that important because I was active" (M004). A 69-year-old man agrees with his statement of, "No, I have it more now" (M007), as does an 87-year-old man who said, "I probably pay more attention to them now…(M016), and his 84-year-old wife who commented, "No, I'm more positive about it now" (M017) One 74.5-year-old woman thought that the media was not as adamant in sharing the pressure to exercise with her statement, "No, it wasn't that obvious on television back then, they didn't focus on it" (M014).

Summary

In this chapter I addressed the results, in the form of participant responses to interview questions, in which I explored how 17 adults 65+ in age felt about the societal pressure to exercise and move more. To summarize, RQ1, "*How do adults over the age of*

65 feel about the societal pressure to exercise?" was answered with themes one through four. Themes one and two provided a clear understanding of how these adults define exercise and physical activity. A clear definition of exercise and physical activity was important to establish a baseline of how and what adults over the age of 65 think exercise is as compared to physical activity. In short, among adults aged 65 and over, a physical activity meant being active whereas exercise was seen as a necessity of life to maintain good health. Theme three centered on duration and type of exercise suggested by the AMA and the WHO to sustain a healthy body. Of the 17 adults interviewed, only three did not exercise. However, the majority, 12 out of 17 (71.8%) who did exercise found the suggested amount and type (moderate mostly) to be realistic for their different ages. Conversely, among those who exercised, one 83-year-old man felt it was too much (M010), whereas one 77-year-old woman felt it was too little (M005). Unexpectedly, even the three participants who did not currently engage in exercise also felt that 150 minutes of moderate to vigorous exercise was adequate and achievable. The final theme that emerged in answer to RQ1 was about one being pressured into exercise by various people (e.g., spouse, physician, family member). The consensus among the participants was that, in general, being pressured or told to exercise or move more was not welcomed. For these participants, being told to more or exercise more bred mixed negative feelings that were dependent on who was the person doing the telling. For example, some participants felt that if it were their spouse, they would think about it, whereas if it were a sibling, child or another relative, they would be more apt to ignore them and be angered and upset by the suggestion. An interesting find was the gender difference in the

responses to the spouse question. That is, when the person's spouse was interjected into the pressure question, the men more than the women said that they would listen to what their spouse was telling them.

Another area of concern for participants was when a healthcare professional was interjected into the question. While the majority agreed that they would listen to their physicians' suggestions, of the 11 participants over the age of 74, seven would do so only with an explanation as to why the physician made this suggestion. Two reported that they would disagree with their doctor and or refuse to do it and two reported that they would follow the doctor's suggestion no questions asked. Five of the six (83.3%) participants aged 65 to 73 said they would definitely follow their physicians' suggestions; only one 66-year old woman said she would blatantly refuse (M009). The data findings in this area may lead to an age factor being important when trying to integrate public changes within the aging population.

Research question 2 was on the public messages designed to increase exercise and make exercise a normal part of one's life. The emergent theme used to answer this question was that media could be a viable tool to help educate older adults on exercise and types of exercises specific for older adults as long as they are not associated with any fitness device or drug. Ten out of 17 (59.2%) participants were against any commercial or media venue showing a new piece of exercise equipment or device. Conversely, five participants felt these types of commercials were a good source and a way to give people exercise choices. These five participants also were glad that there are alternate venues for people to use who need to exercise. However, when it comes to bombarding the general

public with health messages, one may have to ask, “how much is too much”? Two of the participants felt all these public messages are too much to absorb and may even confuse some people on what or what not to do.

Concerning commercials showing people exercising, older adults exercising, and a commercial showing a new type of exercise, 15 of the 17 (88.2%) participants had positive feelings about them; seven participants would be apt to try a new exercise shown by the commercial. However, while these commercials were elicited mostly positive responses, five believed that the public should approach these commercials with caution when trying the exercises for themselves. Commercials that encouraged people to move were necessary in today’s world. Eight participants had positive views with two of the eight (25.0%) feeling that commercials that entice people to move more are necessary. While commercials or media campaigns that show people exercising or entice people to move are viewed as good by some adults, not everyone may feel that these types of commercials or media messages are meant for them.

When participants were asked whether or not they think the public messages were meant for them, more than half, 10 out of 17 (59.2%), answered no. Of the three participants who did not currently exercise, two of them also felt that these messages were not meant for them. One 66-year old woman participant never heard of any such messages; she later revealed that she does not watch television, and this may be one of the reasons why. Also, there was one participant who thought these types of messages are for everyone, including herself. The following Chapter 5 will present a concluding

analysis of the data's results and also list the list the implications for social change along with recommendations for future research on this topic.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

For the first time in history the older segment of the population will outnumber the younger segment of the population by 2050 (Berger, 2008: WHO, 2012). A population shift such as has governments and healthcare officials considering possible solutions to ensure a healthy, self-sufficient, and independent older population. How to help those 65+ in age grow old successfully and gracefully has become a chief concern among government and healthcare officials (Kahng, 2008; Lee, Lan & Yen, 2011). Exercise helps people age successfully (Aldwin & Igarashi, 2015; Barry 2015). However, governmental efforts to make exercise behaviors the norm may affect different age segments of the population differently. Hence, in this study I explored how adults 65+ in age view and feel about the societal pressure to exercise.

I used a qualitative design using open-ended interview questions in the present study. There were 23 questions in total with 17 participants who volunteered to take part in this study. Participants' ages ranged from 65 to 95 years of age. There was at least one participant from every decade within this range of 65-95. The interviews lasted between 35 minutes to 2 hours, with most approximately 45 minutes. I conducted all the interviews in a private setting where they were encouraged to express their thoughts freely and openly. It was anticipated, by me, that older adults would vary in their emotions about the societal pressure to exercise as well as how they define exercise and physical activity. It was also expected that older adults would not like being pressured into change. The results varied and, as expected, older adults viewed exercise, in general,

as beneficial. The results also showed that older adults think differently about exercise and physical activities, with the former being more of a necessity of life. An unexpected result was in the variance with regard to who was giving the directive to exercise or move more. What was also surprising was, when it came to following the directive to move or exercise more, age was a factor in compliance. That is, those over a certain age questioned the directive, even when the directive came from their physician. I anticipated that, in general, the government programs designed to entice people to exercise would be beneficial and be directed toward older adults. However, the results revealed that, while most participants saw these programs as helpful, the majority did not feel that the societal messages to exercise portrayed by these programs were geared toward them in particular.

Interpretation of the Findings

Three research questions guided this study. The first question was, *how do adults over the age of 65 feel about the societal pressure to exercise?* The purposes of the interview questions for this RQ were threefold: a). To help understand how adults 65+ in age define exercise and physical activity, b). To uncover what they thought about the recommended amount of exercise that is needed to sustain good health, and c). To uncover how adults 65+ in age feel about being told that they need to exercise by whomever (i.e., healthcare professional, family member, spouse). The answers that followed these questions gave way to the emergence of the following four themes.

Theme 1: Physical Activity (PA) Means Being Active, Whereas Exercise is Seen as a Necessity for Good Health or to Stay Healthy

The findings in the current study substantiate that adults 65+ in age view exercise

as a key beneficial element in sustaining good health, which is in line with research on benefits of exercise from previous studies (Burr et al., 2002; Burschka et al., 2014; Daulat, 2015; Wilson, 2015). Overall, participants reported positive views toward exercise, which aligns with numerous studies on how exercise affects moods and works on reducing depression and other cognitive problems (Cruise et al., 2011; Gutierrez et al., 2012; Matsouka et al., 2010). Participants defined physical activity in the present study differently than in past research. The participants perceived exercise as beneficial and needed to be done continuously, whereas, physical activity was perceived as recreational and did not need to be done continuously.

The participants defined physical activity as being active but failed to acknowledge that physical activity would be a way to maintain good health, as found in a Mavric et al.'s (2014) overview of the literature of the research on physical activity. Furthermore, the current findings indicate that, while the literature may use the terms exercise and physical activity interchangeably (CDC, 2015), this may not be the case for adults 65+ in age. The consensus of the responses was that exercise has to be done on a continuous basis, whereas physical activity does not. Also, exercise is done with a purpose in mind (e.g., building muscle, weight control) whereas, physical activity was done for enjoyment. One participant viewed physical activity as her daily household chores and saw exercise only as a means of keeping fit. The physical activity of walking, even at a leisurely pace, can keep one fit and is deemed beneficial to a person's well-being (CDC, 2012), which was in opposition to the participants' perceptions regarding physical activity.

Theme 2: People who are active and or exercise usually look physically fit.

The participants in this study described people who are active or who were doing exercise as physically fit, which aligns with studies that support the fact that exercise and physical activity can help a person maintain a healthy weight and good muscle tone (Daulat, 2015; Lee et al., 2013; Monteiro et al., 2015; Puterman et al., 2016). By their definitions, a physically fit person was presumed to have strong muscles and bones, which supports the perception that exercise is associated with maintaining both (Bottino Roma et al., 2013; Ourania et al., 2003; Karlsson et al., 2008). There are various forms of exercise and physical activities that help people maintain healthy body weight or prevent muscle loss. For example, Tai Chi can help with increased balance and coordination (Burschka et al., 2014) and walking can help with weight loss (CDC, 2015).

Theme 3: The suggested amount of 150 minutes per week of moderate to vigorous exercise is doable.

The findings in this study support that the suggested amount of 150 minutes per week of moderate to vigorous exercise is doable (AHA,2014), as most of the participants agreed with this statement. Twelve of the 17 (70.6%) participants reported that they exercise for 2 or more hours per week, and 14 of the 17 (82.4%) reported that they currently exercise. The age range of the participants who reported that they exercise approximately 150 minutes or more was between 65 and 95 years of age; the medium age was 76.9 years of age.

Conversely, three participants felt that this was too much, and that each person knows what he or she can do. These three participants also felt that when it comes to

exercise, people should know their limitations and exercise accordingly. Bellew et al. (2015) found something similar, with the suggestion that people age differently, and specific factors should be taken under advisement when addressing exercise with the older adult population. Furthermore, a person's chronological age may differ from his or her physiological age, which should be kept in mind when making exercise recommendations. Haung et al. (2016) suggested that exercise should be age-appropriate and specific to older adults.

Theme 4: Being pressured or told to move more can produce mixed feelings among certain adults age 65 and over.

The participants' responses to the interview questions that addressed the above research question were mainly negative. For this RQ, the same question was asked several times, by injecting a different person as the person giving the directive (i.e., healthcare professional, family member, significant other). Attitudes that the participants held toward these various individuals seemed to play an essential part in whether the directive was taken positively or negatively, and whether the participant would follow the directive. This finding is consistent with the role that attitudes have in people performing a behavior, such as exercising (Calitri et al., 2009; French et al., 2005; Hyde et al., 2009). Attitudes can be affective (emotionally based) or instrumental (purposely based) and implicit or explicit (Berry & Shields, 2013; Howell et al., 2016; Kraft et al., 2005). Most of the participants felt that what they did for exercise was their own business and that they were doing all that they could. This supports the findings by Calitri et al. (2009) and Hyde et al. (2009), that people who have high implicit attitudes are more likely to

exercise and hold positive views toward exercise. Implicit attitudes provoke unconscious bias toward exercise cues. In the present study, being told to do exercise more may cause affective attitudes that become the defeating element to the desired behavior, which in this case, was to get the participant to exercise or move more.

While healthcare professionals' recommendations were viewed positively by some participants, the older segment (74+ in age) of participants needed more information before heeding the suggestion. Hudson et al. (2015) found that older adults show varying attitudes toward exercise with age. Goals play a valid role in the encouragement of behavior (Kruglanski et al., 2015). The majority of the participants reported a negative reaction to being told that they have to move or exercise more. The participants in this study may have been content in their exercise behaviors already, thus supporting the notion that if no goal is formed to add more exercise, no additional exercise will take place (Kruglanski et al., 2015). The majority of these participants exercised and held a positive attitude toward exercise, but they maintained a negative attitude toward being pressured into exercise. This finding further supports the finding that the strength of a positive attitude alone is not enough to elicit a desired behavioral change (Kruglanski et al., 2005).

The second research question was: How do older adults feel about the public campaigns designed to increase exercise and make exercise the norm? This question produced theme five.

Theme 5: Media can be a viable basis for exercise education as long as it is not selling a device or pill.

In general, the results were positive. The majority of the participants accepted media messages and felt that public campaigns were good and much needed, which supports the concept that acceptance is not only believing in but also going along with the subjective norms (Deuker et al., 2013; Park & Smith, 2007). The campaigns, whether done in a television infomercial or in a magazine advertisement that showed older adults exercising, were deemed good learning tools for older adults. One participant's response was that advertisements that used older adults and or enticed movement were not only good, but "good for the country" (M016). Another participant noted "I'm glad that people are telling them to do it" (M002).

While most of the participants viewed these messages positively, surprisingly, 10 out of 17 (59.2%) of the participants did not think that these campaigns or advertisements were geared toward them. This finding is in line with past research that showed that people are unique and this uniqueness can also be applied to their perceptions of certain behaviors (Park & Smith, 2007). In contrast, and when considering these media campaigns as the *social pressure to exercise,* this finding goes against Chapelain et al.'s (2015) construct of social pressures acting as an extrinsic factor that elicits behavioral change in people, so they can be more like their peers. Likewise, social influence, which is an interchangeable term with social pressure (Thomas & Wilson, 2016), would also equate to these media campaigns. When addressing the issue of social pressure and conformity, this study does not support the normalized findings that a change in behavior can occur from either a real or imagined group pressuring (Battiston & Gamba, 2016, Deuker et al., 2013; Duo et al., 2016). This is supported by the findings that the majority

of the participants did not feel that the societal messages to move more or exercise were geared toward them, even those that did not currently exercise. Furthermore, most participants would not take directions to exercise or move more from someone else, so it stands to reason that they would ignore the societal campaigns pressuring people into exercising. This was especially true for the older participants 74+ in age and extended to them not taking direction from their healthcare professional without a valid explanation on why.

The final research question was: How do older adults' opinions vary by decade of life toward exercise and or the pressure to exercise? This question resulted in the emergence of theme six.

Theme 6: Exercise is seen as good; views toward being told to exercise and on the focus of exercise in one's life changes with age.

The baseline established about older adults' general views on exercise were positive. This is in line with past research that depicts exercise as a health-promoting or health-maintaining behavior (Burr et al., 2002; Burschka et al., 2014; Daulat, 2015; Mavric et al., 2014; Wilson, 2016). The variously reported reflections on how participants feel now about the societal pressure to exercise versus how they felt when they were younger matches past research that older adults' attitudes toward something can change (Hudson et al., 2015). The majority reported that their views and perceptions toward exercise and the societal pressure to exercise have changed over the years. One man reported that he feels this pressure more now than when he was younger (M007). The experiences ranged from not needing to exercise or paying attention to exercising

because of an already active lifestyle at the time, to having to pay closer attention to exercise now. Exercise is more salient now than when they were younger; primarily because of aging.

These experiences further the findings of Hudson et al. (2015), that attitudes can change and move from a positive (e.g., exercise ability, fitness) to a negative one of exercise being a reminder that they are aging, and their bodies are losing strength and agility and vice versa. The shift in the focus of exercise going from the back to the front of the mind furthers the past research on negative health consequences eliciting healthier choices (Hollands & Marteau, 2016). These findings support past research on how positive imagery can also change one's opinions toward some phenomena, such as the societal pressure to exercise (Markland et al., 2015).

The health belief model (HBM) is often used to guide health-related studies and literature and was originally developed to understand why and when people take action to guard their health (Becker et al., 1978; Condelli, 1986; Hochbaum, 1958; Ogden, 2003; Ronis, 1992; Rosenstock, 1966). The HBM suggests that one's perceived risk to and threat of disease, (severity of an illness or disease), and the benefits and costs of the health-related behavior are the main determinants to engaging in the health-related behavior. Kunkel et al. (2014) suggested that society has an important role in the promotion of health and prevention of disease through public health agency efforts and with increasing health literacy. Ronis' (1992) previous findings clashes with the suggestion that unless people believe that the behavior is health-related and beneficial, they will not engage in preventative health-related behaviors. Ronis suggests that a

person's susceptibility to a specific disease or illness is more of an indicator in engaging in preventative health-related behaviors than people's general beliefs on health-related behaviors.

Age has been found to be an important factor in the adherence to health-related behaviors (Bond et al., 1992). On the societal pressure to exercise, the participants in the present study gave responses that were mixed, which could support both Ronis (1992) and Kunkel et al.'s (2014) studies. Some of the participants responded that they felt that the public messages that encourage people, especially older adults, to get up and move were beneficial to the public's wellbeing. However, more than half of the participants (59.2%) felt that these messages were not directed toward them. In line with the cost-benefit principle of the HBM, most participants already engaged in exercise and were doing so for health-sustaining reasons. So, even though many participants did not feel the public messages were directed at them, they were, in fact, exercising. When asked whether she would follow the suggested amount of 150 minutes of exercise, an 84-year-old woman responded, "more now than 10 years ago" (M017). When probed as to why, the 84-year-old woman responded, "Because I had two shoulder replacements, and I don't know whether exercise would have prevented them, but they [it] helped after" (M017).

D'Souza et al. (2011) suggested that on the perceived threat, severity, susceptibility and self-efficacy continuum of the HBM, the main objective of the pressure to exercise is often done through media and government wellness programs designed to bring about behavioral change within a society. The participants responses supported this

notion in that public messages can be used as a learning tool for many adults, especially older adults. Many felt that these advertisements or public messages showing older adults exercising can be useful in introducing a new type of exercise, help show other older adults that exercise still can be done at any age and provide a visual tool on how to perform certain exercises. However, any message that used a pill or device was not taken seriously, and many felt that these were just gimmicks to get people to buy things. Again, the majority of these participants were people who exercised and therefore did not feel that these messages were directed toward them. They also believed that they were already doing the maximum amount of exercise that they could. One non-exercising participant did express negative self-efficacy feelings about these messages with his response of, "they can do it and I can't" (M006).

The HBM has been expanded to include internal and external cues to action (Becker et al., 1978: Harrison et al., 1992; Solhi et al., 2010). Mass media campaigns [societal pressure] are external cues that people can take to bring about behavioral change (Chen & Land, 1986; D'Souza et al., 2011, Solhi et al., 2010). The participants' responses did not support this part of the HBM for the majority felt that these messages were not geared toward them. Therefore, they would be less likely to follow these messages. Furthermore, the majority reported that they were doing the maximum that they could already. On taking the cue from others, the majority of the responses were negatively received. This negativity extended to the healthcare professional as well as family members and peers.

Limitations of the Study

The participants in this study were from a homogenous group. That is, they were Caucasian, and over the age of 64, which would mean that the findings from this study are not generalizable to the whole population. In addition, this study mostly contained people who were currently exercising as part of their daily life. In fact, there were only three who did not exercise, but who reported that they used to exercise. Therefore, these three exceptions may have still have had an exerciser's mentality when they reported their answers to the interview questions. The majority of the sample used to collect data for this study was not representative of the whole population and was limited by their age, race, and exercise mentality.

Scientific inquiry rests its trustworthiness upon a study's validity and reliability (Creswell, 2007). In a qualitative study such as this one, the consistency and reliability of the data is most important (Bloomberg & Volpe, 2012; Creswell, 2007) and this is what makes the study sound. The soundness of this study has to do with the data collection and the interpretation of the findings, whether the findings are generalizable to the public population. To achieve dependability, the interviewer showed consistency by coding the raw data in a way that others can duplicate (Saldana, 2009). This study contained 17 participants, aged 65 – 95 and used an interview guide that consisted of three research questions. Each research question had interview questions specific to that research question. In total, there were 23 interview questions. The answers were first grouped by RQ. Next, within each RQ, the data was arranged by each interview question. Next, a code book was developed that listed the codes used and the criteria for that code. The

interview question responses were coded to identify the emergent themes by the reoccurrence of the same codes. Finally, the most prominent themes were grouped together to produce the overarching theme for each RQ.

According to Stadtlander (2015) internal validity addresses the precision of the data. Validity was achieved when each participant was given a transcribed copy of their responses and asked to review for accuracy of what was said. Also, at the time of the interview, any ambiguous terms or sentences were clarified before proceeding to the next question. To mitigate researcher bias, I kept a journal of my feelings toward the phenomena under study along with written notes taken during the interview process. In addition, a second coder was given the code book and asked to code the raw data. We achieved an inter-coder agreement (had 80% or more agreeance of the codes used), which meant that the coded data was an adequate reflection of the findings (Bloomberg & Volpe, 2012). External validity was achieved by the variation in the selection of the participants (e.g., men and women) and with the stratification of the data across the different age brackets (65 – 95 years of age) as well as with the thick rich descriptions given as responses to each interview question. It is through the thick rich description given by participants and my reflexivity that provided the avenue of the transferability of the data to other settings (Bloomberg & Volpe, 2012; Patton, 2002, Stadtlander, 2015).

Recommendations for Further Research

As stated in chapter two, there exists a gap in the literature that explores how people feel about the societal pressure to exercise with a specific emphasis on the older adult population. The findings of this study provide an entry way into closing this gap.

However, like most research, this study is not without limitations that leave unanswered questions. Therefore, the following are recommendations to help further fill this gap.

First, this study was not generalizable to the entire population or even other ethnic portions of the older adult population. Only white Caucasian adults 65+ in years were interviewed for this study. Also, the sample was small (17 participants) and conducting the same study with a larger group of older adults would add more diversity, making it more heterogeneous in nature.

Secondly, there may have been a potential discrepancy in how these older adults defined moderate and vigorous exercise. For example, a 95-year old may feel that doing yoga is vigorous, and a 65-year-old adult may define yoga as mild exercise. Lee, Yan and Yen (2011) found that adults 65+ in age thought leisure activities were just as vigorous as intense exercise, which contrasted the findings of this study. The results of this study defined physical activity as done for fun and exercise as a necessity done on a consistent basis. Future research is needed to help quantify these definitions by levels and intensity and maybe even within certain age brackets.

Finally, the majority of the participants were adults 65+ in years who exercised on a consistent basis. Future studies should compare non-exercisers to those who exercise sporadically and also to those who consistently exercise. Furthermore, understanding how the younger segments of the population (e.g., children, adolescents, young adults, middle-aged adults) feel toward the societal pressure to exercise and move more would also help to further research, especially since we live in a highly technical world.

Implications

Positive Social Change

One of the main doctrines of health psychologists is to understand how social aspects can affect one's health. The societal pressure to exercise placed upon society through government programs and media campaigns is a social aspect that needed to be explored. The responsibility to minimize negative and facilitate positive experiences toward exercise and physical activity lays with healthcare professionals and other providers (Moschny et al., 2011). This study provides insight to how the fastest growing portion of the population feels about being pressured into exercise. Social pressures, such as the societal pressure to exercise, are an extrinsic factor that forces individuals to change their behavior to be more like their peers (Chapelain et al., 2015). Furthermore, one's behavioral intentions on health-related behaviors are strongly impacted by one's perceived normative influences (Park & Smith, 2007). In this study, adults aged 65+ in years would not be influenced to exercise by being told to exercise, but may, in fact, exercise because of their age. That is, they realized that they need to exercise to stay strong and remain independent of illness and or physical maladies that normally plague the older adult population.

The results of this study surrounding the pressure questions were overwhelmingly negative. Therefore, adults 65+ in age do not respond or react well to being told they need to exercise or remain physically active. Even when some of the participants reported that they would feel guilty or lazy if their peers exercised and they did not, they still felt that the decision to exercise remains within them and it is their desire to do so and not

because they are being told to or pressured to exercise. On taking a directive from a healthcare professional, spouse, or family member, the results were mixed. The younger age segments (65 – 74 years of age) would listen to the healthcare professional but not to anyone else. The older segment (75+ in years) not only would not take the direction, but also would question the healthcare professional on his suggestion. Therefore, and by this finding, community healthcare interventions, public messages, and government programs would be better served if they concentrate on the younger segments of the population. Community and government interventions can use this information to better reach older adults through understanding on some deeper level how older adults react to being told they need to exercise. Furthermore, the findings of this study showed that older adults were receptive to public messages that had older adults engaging in exercise. The participants felt that these were good for instructional and learning purposes. Therefore, instead of having societal pressure to exercise, the healthcare industry and policy makers can use this information to design messages as "informational" in an effort to make exercise and physical activity the norm for adults aged 65 and over.

Furthermore, this study showed that adults over age 65 did not think that the societal messages to exercise were geared toward them. Moschny et al. (2011) posit that exercise interventions should be age and gender specific when trying to increase exercise within the older age groups. The same can be said for the societal messages and government programs that are trying to make exercise the norm. Healthcare professionals and government agencies can use the data from this study to make the societal messages designed encourage people to exercise, more individualistic and to target specific age

groups (e.g., 60s, 70s, 80s, 90s). The results of this study showed that older adults thought of exercise as a necessity in old age, and therefore, are influenced to exercise by their perceptions of what it means to grow old gracefully or age successfully.

Successful Aging

Currently, there is no universal definition of what it means to age successfully. Past studies designed to identify the key elements in defining successful aging vary in what determines successful aging (Aldwin & Igarashi, 2015; Cosco et al., 2014; Lee et al., 2011; Kahng, 2008; Phelan et al., 2004). One model of successful aging uses non-biological factors as the determinants of successful aging (Baltes & Baltes, 1990). More recently, social engagement and social support were found to be key determinants in successful aging (Kahng, 2008) as well as positive attitudes, positive relationships and resilience (Aldwin & Igarashi, 2015). Jeste et al. (2013) proposed that depression plays an important role as well as wisdom (Jeste & Oswald, 2014; Kelly & Lazurus, 2015) and self-esteem (Cha et al., 2015). Jeste and Oswald (2014) and Cosco et al. (2014) discovered that when subjectivity was introduced, older adults reported themselves to be successful agers even with physical limitations and or maladies. Hence, when subjectivity is used as a definition factor to successful aging people who do not meet the biological criteria to this definition will also consider themselves as successful agers (Aldwin & Igarashi, 2015; Depp & Jeste, 2006; Kahng, 2008; Nguyen & Seal, 2014). The present study had participants well into their 80s and 90s. Public policy to make exercise the norm can use this information to help the older and oldest old of adults define more succinctly what it means to age successfully.

Conclusion

This study has helped to expand the literature on older adults and exercise by adding how adults 65+ in age define, understand and feel about physical activity and exercise and the societal pressure to exercise. An extensive literature search produced little to no information on how adults age 65+ feel about the imposing societal pressure to exercise. This study also addressed how public messages to exercise are received by the older adult population. As expected, older adults do not like to be pressured or told that they need to exercise. The unexpected finding was that the participants in this study felt that the societal pressure to exercise was not directed toward them. This finding could be because 82.4% of the participants of this study reported that they currently exercise. Hence, this finding serves as impetus for future research. Another unexpected finding was that age played a role in whether the participant would take a directive to exercise from their healthcare professional. Therefore, further research would need to be done that could quantify this finding so that societal messages designed to entice older adults to exercise can be better suited for older adults by their age segment.

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Appendix A: Interview Questions

Research Question 1: How do adults over the age of 65 feel about the societal pressure to exercise?

1. Tell me what physical activity means to you. That is, describe a physical activity.

1A. Describe what a person who is exercising looks to you.

2. Tell me what exercise means to you. That is, describe exercising.

2A. Describe what the person doing the physical activity looks like to you.

3. The American Heart Association and the World Health Organization suggest that people engage in 150 minutes per week of moderate to vigorous exercise. How do you feel about this statement?

3A. How likely are you to heed this suggestion?

4. If you consider yourself to be active and are told that you need to be more active more often, how would this make you feel?

5. If your physician told you that you needed to exercise more, how would you feel?

6. If your physician told you that you needed to exercise more, how would you feel?

7. If your significant other or partner told you that you need to exercise, how would this make you feel?

8. Physical activity can mean anything from walking the dog to gardening to cleaning the house. Exercise is more deliberate and controlled for a specific purpose which can be anything from lifting weights, to yoga, to running. Do you exercise now? If so, about how much time do you spend on exercising per week?

8A. If answered no – did you exercise when you were younger and what changed in current time that made you stop or may have made you stop?

> Mild exercise means you can hold a conversation while performing the action(s)
>
> Moderate exercise means you can still talk while doing the action(s), but find it difficult and cannot talk for long amounts of time (e.g., more than a minute or so)
>
> Vigorous exercise means that while performing, you cannot hold a conversation or talk even for a minute or so.

9. Knowing this how would you describe the exercise that you do? How would you describe the exercise you think you are capable of doing? Why did you choose your answer?

10. If the majority of your friends exercise and you do not, how would this make you feel?

11./ Does having a family member tell you that you should exercise influence you more or less to exercise?

12. Does having a healthcare professional (i.e. doctor, caregiver) tell you that you need to move more influence you more or less to do so?

Research Question 2: How do older adults feel about the public campaigns designed to increase exercise and make exercise the norm?

1. Do you know how much exercise is needed to maintain a healthy life? If so, how did you find this information out?

2. do you feel that the public messages geared toward exercising are meant for you?

3. How do you feel when you see a television commercial showing people exercising?

4. How do you feel when you see a commercial or an advertisement encouraging people to exercise or move more?

5. How do you feel about all the commercials selling exercise programs or devices (e. g., beach body fitness, daily burn, fitbit)?

6. How do you feel when you see a magazine advertisement for a new exercise to help you lose weight, gain strength, or become more flexible?

7. How does it make you feel when you see commercials showing older adults doing exercises or physical activities (e.g. swimming, aerobics, yoga, walking and so on)?

Research question 3: How do older adults' opinions vary by decade of life toward exercise and or the societal pressure to exercise?

1. What is your general view on exercise?

2. What is your general opinion on being pressured into exercise by whomever (e.g., doctor, spouse, friends, health programs, commercials)?

3. Looking back at your life, do you think that you have the same views toward exercise that you had when you were younger?

4. In the last decade, the societal pressure to get up and move more and exercise has become more prominent in our society. Looking back at your life, do you think you had the same feelings toward this ten years ago that you do now?

Appendix B – Confidentiality Form

Name of Signer:

During the course of my activity in collecting data for this research: "*A Qualitative Study: Adults Aged 65+ and the Societal Pressure to Exercise*" I will have access to information, which is confidential and should not be disclosed. I acknowledge that the information must remain confidential, and that improper disclosure of confidential information can be damaging to the participant.

By signing this Confidentiality Agreement I acknowledge and agree that:

1. I will not disclose or discuss any confidential information with others, including friends or family.
2. I will not in any way divulge, copy, release, sell, loan, alter or destroy any confidential information except as properly authorized.
3. I will not discuss confidential information where others can overhear the conversation. I understand that it is not acceptable to discuss confidential information even if the participant's name is not used.
4. I will not make any unauthorized transmissions, inquiries, modification or purging of confidential information.
5. I agree that my obligations under this agreement will continue after termination of the job that I will perform.
6. I understand that violation of this agreement will have legal implications.
7. I will only access or use systems or devices I'm officially authorized to access and I will not demonstrate the operation or function of systems or devices to unauthorized individuals.

Signing this document, I acknowledge that I have read the agreement and I agree to comply with all the terms and conditions stated above.

Appendix C – Public Recruitment Flyer

Attention!

Local student is conducting a study on health promoting behavior and needs adults 65+ in age to interview.

General Information: This study seeks to explore the views that the older adult population feels about integrating health promoting behaviors as part of their daily life.

Any adult age 65 and over who is interested in being interviewed for this study can **contact:**

All information will be kept confidential. All participants will receive a $10 gift voucher to a local café or restaurant