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The relationships between older, physically impaired men and their pets.

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Walden University
2018

Abstract

The Relationships Between Older Physically Impaired Males and Their Pets

by

Jennifer Hughes Williams

MA, California State University, Northridge, 1985

BS, University of Southern California, 1981

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Health Psychology

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Abstract

The present study examined older male adults' lived experiences with pet ownership. There is robust literature on older adults and the human-animal bond, but presently there are no qualitative phenomenological studies that focus solely on older physically impaired males who live alone and the relationships they have with their pets. With the guiding framework of biopsychosocial theory and using intensive interviews, 10 older males (65+) who suffered from some physical impairment discussed the relationships they have with their pets, and how their companion animals affect their physical, emotional, and social health. All interviews were transcribed, coded, and analyzed for themes. The results showed that the participants believed they could care for their pet despite their physical limitations. The themes and subthemes that emerged from the interviews were companionship, responsibility, plan for death of owner, routine, focus on animal instead of self, physical benefits despite physical limitations, worry about falls, emotional support, and social connections because of the pet. The present study provides new information about changes in the social behaviors of the older male adult in relation to his pet, where the pet aids the individual in relating to other people. The research results may benefit researchers, healthcare workers, and geriatricians who work with the population of older adult, physically impaired, males. The results demonstrate the need for understanding the relationship of the older male adult and his pet and suggests that pets may help the older males increase their socialization.

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Dedication

This dissertation is dedicated to my outstanding father, John T. Williams, for his lifelong support of my dreams and endeavors. Without your love and friendship, I could never have reached my goal of obtaining a PhD in Health Psychology. I want to express my gratitude, appreciation, and love for you for always setting the bar high for yourself, which has forever been an inspiration to me. Thank you for everything, Dad.

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Finally, I would like to thank all of my children, Barbara, Samantha, Ethan, and Bianca for believing in me. I live for all of you.

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Chapter 1: Introduction to the Study

Introduction

There is a significant increase in the number of older adults living today, and in the future, there will be more older adults (65+) than ever before (United States Census, 2010). Although women continue to outlive men in larger numbers, statistics show that older men are also living longer than previous censuses have shown (United States Census, 2010). There are many reasons why longevity is increasing for older adults today; discoveries in science, technology, and medicine have helped to extend the lifespan of the older adult (Patton, 2015).

The Administration on Aging (AOA, 2014) showed that there was a 24% increase in the number of United States older adults between the years 2003 and 2013. The AOA (2014) also showed that presently, approximately one out of every seven individuals is an older adult and 28% of these older adults live alone. The World Health Organization (WHO, 2016) projects that between the years 2015-2050, the number of older adults worldwide will increase from 12% to 22%.

Older adults in the United States account for 66% of the healthcare budget, according to the Centers for Disease Control (CDC, 2013). Two-thirds of older American adults suffer from multiple chronic health conditions (CDC, 2013). Older pet owners who live alone and suffer with a physical health condition may receive emotional or social support from their companion animal; however, physical limitations can make it challenging to take care of a pet.

In both quantitative and qualitative studies on older adults and pet ownership, researchers have called for future studies to be conducted with older males because most pet study participants are women (see Antonacopoulos & Pychyl, 2010; Guzman et al., 2009; Putney, 2012). In fact, there is a dearth of information regarding older males and pet ownership. The present study focused solely on 10 older males who suffered some physical limitation and the relationship they had with their pets.

The increase in the number of older adults in the United States provides a reason to pursue research on the subjects of longevity, physical decline and support, psychological processes, and social health as they pertain to adults over the age of 65. Research on older adults and their pets has been studied using both qualitative and quantitative designs; however, the present study was the first of its kind to examine the relationship the older adult male with a physical limitation has with his animal and how that relationship affects the individual's physical, psychological, and social health. For the present study, 10 males over the age of 65 were recruited to participate in an intensive interview about the relationship they have with their companion animals.

Vulnerability to social isolation and physical decline are common experiences for older adults who struggle with a physical disability, such as arthritis or other mobility problems (Dunlop et al., 2015). All participants in the present study indicated that they had a physical limitation. Pets can provide the older adult with companionship, a sense of security, less loneliness, motivation to exercise, less depression, and increased self-esteem (Anderson, Lord, Hill, & McCune, 2015; Chur-Hansen, Beckwith, & Winefield, 2008; Friedmann & Son, 2009; Keegan, 2014; Pohnert, 2010).

The WHO (2015) stated that approximately one quarter of older adults suffer with a mental health issue. The most common mental disorder for older adults is clinical depression (CDC, 2016). Pets can ameliorate the symptoms of depression by providing companionship and a sense of purpose for the older adult (Nelson, 2015). Participants in the present study had the opportunity to talk about how the relationship with their pet affected their mental and psychological health.

As a group, older adults have experienced more loss than their younger counterparts. In general, older adults have experienced more deaths of relatives and friends than younger adults, potentially creating a smaller circle of individuals with which to socialize. For older adults, social support is as important as physical and mental health (Scheibeck, Pallauf, Stellwag, & Seeberger, 2011). The present study examined whether pets could be a social motivator for the 10 older male participants.

Background

The *United States Pet Ownership and Demographics Sourcebook* (2012) stated that in 43.8% of households where single older men live, there is at least one pet. Anderson et al. (2015) showed that owning a pet for an older adult can be considered an alternative therapy that promotes healing, less loneliness, and improved physical activity. However, Rijken and Van Beek (2011) sampled 1410 individuals over the age of 65 to investigate whether pet ownership mitigated social connections and feelings of loneliness. There was no improvement in social connectedness or levels of loneliness (Rijken, & Van Beek, 2011). Conversely, pet ownership for older adults does indeed mitigate loneliness and in the case of dog ownership, motivates the individual to get

exercise and socialize with others (Friedman & Son, 2009; Herzog, 2011; Pikhartova, Bowling, & Victor, 2014; Sable, 2013).

The older males who participated in the present study all suffered some form of physical limitation or disability. According to the Americans with Disabilities Act (ADA), disability is defined as a cognitive or physical disease that severely limits the everyday activities (Wan & Larsen, 2014). The National Institutes of Health (NIH, 2010) showed that adults over the age of 65 are the most likely to suffer with a disability. Caring for animals involves several tasks like feeding and cleaning up after the animal, shopping for animal supplies, and visits to the veterinarian. Household pets are also considered to be a fall risk for older adults and these individuals need to be conscious of where the animal is at all times to avoid tripping and falling over the pet.

Household pets help reduce feelings of isolation and depression and improve the older adults' physical and emotional well-being (Huss, 2014; Peacock, Chur-Hansen, & Winefield, 2012). Johansson et al. (2014) found that for stroke survivors, owning a cat or dog was a mood elevator, motivator to exercise, and a reason to work hard to recover from physical deficits. Dunlop et al. (2015) found that older adults who suffer with a physical disability spend two-thirds of their days in sedentary activity. Without regular exercise and weight-bearing activities, older adults make themselves susceptible to becoming frail. With frailty, there is more weakness and a higher incidence of falling. The CDC (2009) showed that there were over 86,000 falls a year due to household pets. The present study also addressed how owning a pet for an older physically impaired male was a potential fall hazard.

There is evidence that human-human relationships and human-animal relationships use the same neurological, physiological, and behavioral mechanisms showing that humans are naturally predisposed to form relationships with both people and animals (Julius, Beetz, Kotrschal, Turner, & Uvanas-Moberg, 2013). For example, the human-animal bond can result in a decreased heart rate, reduced feelings of loneliness, lower blood pressure, and improved mood (Campo & Uchino, 2013). Pet owners sometimes risk their own lives in order to save their pet during a natural disaster (Thompson, 2013).

Older adults may also worry about what will happen to their pet when they die. It is important to plan for an animal's care should the older adult predecease the pet (Anderson et al., 2015). Fields, Orsini, Gavish, and Packman (2009) examined the impact of pet attachment and grief where the strength of the attachment predicts how an older adult reacts to the death of a pet. Fields et al. (2009) provided evidence that the strength of attachment that older adults have with their companion animals is an indicator of their overall health. For example, if older adults are anxiously attached to their pets, they have a harder time with pet loss (Fields et al., 2009).

In a quantitative survey study, Krause-Parello and Gulick (2013) investigated 159 older females and 32 older males regarding attachment to a household pet. High attachment was correlated with less loneliness, more social support, and companionship (Krause-Parello, & Gulick, 2013). However, Peacock et al. (2012) found that high attachment to pets is also associated with anxiety and depression.

The present study filled a gap in the literature because older physically limited males and their pets has not been examined. In two qualitative studies examining the relationships of older adults and their pets, Chur-Hansen, Winefield and Beckwith (2009) and Guzman et al. (2009) called for more qualitative studies that focus solely on older male participants. Antonacopoulos and Pychyl (2010) recommended that future studies focus on the male pet owner because most of the individuals surveyed were female

Problem Statement

The number of older adults is increasing and alternatives and remedies for supporting the physical, emotional, and social health of these individuals is an important public health issue (Byrd, 2011). Older adults experience physical, emotional, and social benefits from the relationships they have with their companion animals. Pets promote better health for their owners. However, for some older pet owners, caring for an animal may be challenging, especially if there is a physical limitation or disability. Therefore, an in-depth qualitative study was needed to understand the lived experiences of older male pet owner who suffer some form of physical disability (arthritis, mobility problems).

The American Veterinarian Medical Association (AVMA, 2012) stated that the human-animal bond includes physical and emotional interactions that affect the health of both the pet owner and the animal. Little is known about the relationship between older male physical impaired adults and their pets and the present study aimed to gain a better understanding of their human-animal bond.

Purpose of the Study

The purpose of the present study was to identify the lived experiences of older physically impaired males and the relationships they have with their pets. Older males with physical impairments are a vulnerable group and owning and caring for a pet takes effort and commitment that may be challenging. Antonacopoulos and Pychyl (2010) and Putney (2012) have called for more studies to focus on older male participants and their pets since most volunteers for previous research studies have been female. The present study filled a gap in the literature by interviewing older men about the relationships they have with their companion animals and how those relationships affect their physical, emotional, and social health. Interviewing 10 participants provided an in-depth understanding of the bond older males have with their pets.

Research Questions

The present study's research questions are as follows:

RQ1 (Qualitative): How do older physically impaired males describe their relationships with their pets?

RQ2 (Qualitative): What are the lived experiences of older physically impaired men regarding how their animal companions influence physical, psychological, and social health?

The two research questions are important because there is very little information regarding the relationship older, physically impaired males have with their pets. Older males who live alone are a vulnerable group and the study of how their pet can influence physical, emotional, and social health may be a helpful addition to the literature. In the

present study, the research questions were answered by asking specific interview questions that ultimately explained what kind of relationship older males had with their pets as well as how the phenomenon of the human-animal bond influenced their overall health. All interview questions were aligned with the research questions and the research strategy of phenomenology. Each interview question was tested for appropriateness in a pilot study that was completed before the actual study was underway.

Theoretical Foundation

The present study used biopsychosocial theory as a guiding orientation that was reflected in both the research questions and intensive interview questions. Engel (1977) defined biopsychosocial theory as a medical model that viewed disease as a physical, psychological, and social phenomenon. When older adults suffer from a physical limitation, their physical symptoms affect the individuals' psychological and social health as well. Engel (1977) indicated that if the emotional and social aspects of disease are ignored, then the whole person is not being treated. For example, diabetes can result in mobility problems for older adults. This disease requires changes in diet and a prescription to continue to exercise and strengthen the body. If an individual is depressed or socially isolated, he or she may not follow through with a physician's advice. It is imperative to address the older adult as a whole person with physical, psychological, and social needs.

Using biopsychosocial theory as a guiding construct for the present study, the participants were asked questions that pertained to the relationship they had with their animal. Biopsychosocial theory uses a model to examine the whole person (Engel, 1980)

and in the present study, 10 participants had the opportunity to discuss physical, psychological, and social aspects of their lives in relation to their pets. A more detailed explanation regarding the choice and application of this theory appears in Chapter 2.

Nature of the Study

The present phenomenological qualitative study used intensive interviews to better understand the lived experiences of older male adults and their pets. Rather than use another qualitative method, such as grounded theory or case studies that develop theories or focus on a narrative chronology respectively, the choice of phenomenology fit the present study because I was interested in the phenomenon of the relationship the older physically impaired male has with his pet. The phenomenological method involves transcribing all interviews, reading all the data, and developing codes for themes that lead to a significant analysis (Moustakas, 1994).

With qualitative research, there are no hypotheses to prove; instead the results often include unanticipated consequences related to the lived experiences of the participant. In the present study, I assumed nothing about the results and used the technique of bracketing (Patton, 2015), which involved setting aside my own ideas, opinions, and beliefs to not contaminate the results of the intensive interviews. Patton (2015) defined the process of using open-ended questions as the "openness of inquiry" (p. 11) that must be the position of the researcher in phenomenological studies.

All participants were older men (65+) who lived alone in the community or in assisted living who suffered with a physical limitation and owned a pet. Recruitment began by posting flyers in churches, synagogues, assisted living environments, barber

shops, veterinarian, and doctors' offices that outlined the nature of the study and what was required by each volunteer (see Appendix A). I also put an advertisement on Facebook (see Appendix B). Snowball sampling was also used when after interviewing the first several participants, I asked them if they could suggest another person like themselves who may want to be part of the study.

Definitions

Ambulation: The ability to walk from place to place with or without assistance (Miller & Krizan, 2016).

Endogenous Depression: A mental illness where depression is caused by an intrinsic, genetic, or biological factor as opposed to an outside stressor, environmental cause, or loss/grief factor (Blazer, 2009).

Mobility: The ability to walk without assistance (Means, Rodell, & O'Sullivan, 2005).

Older Adult: The WHO (2016) defined an older adult as an individual over the age of 60. For the present study, all participants (older adult males) will be aged 65 or older.

Physical Impairment: The CDC (2009) defined a physical impairment as a condition that limits an individuals' ability to walk, move, walk up stairs, stand or sit for up to 2 hours, bend or reach for an object, kneel, or carry an object that weighs up to 10 pounds (like a bag of dog food).

Assumptions

Phenomenological inquiry means assuming nothing about the results of the study and focusing only on how the expressions of the participants and their meanings produce developing data and analysis (Patton, 2015). The present phenomenological study did not make any assumptions about the results of the study; however, there were certain assumptions about recruitment and data collection that need to be clarified. For example, it was assumed that the older participants in the present study were truthful about their lived experiences regarding the relationships they have with their pets. It was also assumed that the older males had the ability to express themselves and articulate their lived experiences on the day of the interview.

There are things I did to help the participants express themselves by adding specific prompts to interview questions (See Appendix C). An older male may not be comfortable expressing emotions. For example, participants were asked, "How does your pet affect your psychological health?" A common answer was that participants did not know. In order to help the older male express himself, I offered prompts like: "How does your pet act when you're sad?" and "How does your pet act when you are happy?"

Although it cannot be assumed that the participants were representative of the larger population of older males, it was a goal that the present study's sample population of older male pet owners who suffered with a physical limitation were representative of the larger population of older males who are just like the participants. I interviewed 10 participants who met all criteria and continued interviewing to the point of saturation where there were no longer new themes to develop from the data.

Scope and Delimitations

The present study is a qualitative phenomenological inquiry into the lives of a specific group of vulnerable individuals. I chose this study design because I wanted to better understand the lived experiences of the older physically limited males and their companion animals. The present study's sample population was 10 older (65+) male pet owners who suffered some physical disability (i.e. arthritis in the knee/hip, other mobility problems caused by disease or injury). All the participants spoke and understood English, suffered no cognitive decline, and lived alone in assisted living or in a community.

The older males were recruited through posted flyers, a Facebook advertisement, snowball sampling (getting referrals for more participants from the older males themselves), and word of mouth. Flyers were placed in churches, synagogues, health care facilities, barbershops, and veterinarian offices. Older males who met the criteria who were not exposed to these recruitment methods could not be studied. Also, except for Facebook advertising and snowball sampling, all recruitment took place in Los Angeles, CA. Although every effort was made to sample a diverse group, participants who were asked to recommend others for the study and referred older men like themselves, further creating a mostly homogeneous group of participants. This limitation made it difficult to generalize to the larger population; however, due to the scope of the study, I was more interested in the lived experiences of participants and not statistics regarding the human-animal bond.

Limitations

There were differences between my sample of participants and the larger population of older men and their pets. For example, due to recruiting strategies, I was only able to meet older men who were exposed to the flyer or Facebook advertisement. The method I used to interview participants was also a limitation to the study. Most of the interviews took place via telephone and I did not have the opportunity to be in the presence of the participant. Therefore, I was not exposed to the natural nonverbal information that is so important in two-way communication. Snowball sampling has its advantages and disadvantages. The technique is effective in sampling hard to reach populations; however, study participants refer people like themselves and that eliminates diversity (Tracy, 2013).

Although I made every attempt to sample a diverse group of individuals with different cultural and racial backgrounds, seven of the older men were Caucasian, two were Black, and one was mixed-racial (Asian). To address this limitation, I advertised in areas of Los Angeles, California where more people of color live. I was also limited by the fact that I only sampled older men who lived alone. Overall, due to the phenomenological method, I could only report on a small group of 10 participants.

I cannot assume that the results of the study are generalizable to the larger population; however, I hoped to discuss the lived experiences of the older men through intensive interviews. For the present study to show transferability to similar groups, it is important to show credibility. To establish credibility for the present study, I used

prolonged contact with each participant, saturation of the data, triangulation, and expert review.

Significance

It is my hope that the results of the present study contribute to the literature and provide health service professionals and gerontologists with information about the older male physically impaired pet owner and his physical, psychological, and social health. Companion animals can offer many positive benefits to the lifestyle of their owners. As mentioned previously, pet owners generally report less loneliness and depression because of the relationship they have with their animal. Dogs for example can be facilitators of regular exercise for the older adult because they need to be walked daily (Feng et al., 2014). A sedentary lifestyle is related to difficulties with ADL and this calls for public awareness and programs that focus on the reduction of a sedentary lifestyle, and companion animals can help with that (Dunlop et al., 2015).

The negative effects of loneliness can be considered a public health issue for older adults (Hagan, Manktelow, Taylor, & Mallett, 2014). The present study attempted to illustrate how pet ownership may be an alternative method or treatment, providing more exercise and companionship to more costly and invasive treatment.

For the older male adult with a physical health issue who lives alone, implications for social change were illustrated by how the relationship between the participant and his pet influence changes in behaviors. For the older adults who own dogs that must be walked every day, there may be a social benefit in that the older adult increases opportunities to socialize with others in the neighborhood. It is my hope that the results

of this study will demonstrate how a pet may influence physical, psychological, and social health. Pets can be important in social interactions that affect the owner's overall health (Rijken & Van Beek, 2011). Dogs and cats have also been shown to compensate for social isolation by providing the owner with companionship (Huss, 2014). The present study will hopefully be useful to researchers and gerontologists studying the older adult and what influences changes in their behaviors.

Summary

Chapter 1 provided an overview of the present study illustrating important statements on background, research questions, problem and purpose statements, nature of the study, and the theoretical foundation. Chapter 1 also covered assumptions, scope and delimitations, limitations, and significance of the present study. Statistics on aging, older adults, and pet ownership were also discussed. Chapter 1 established that there is a dearth of information regarding older males with physical impairments and the relationships they have with their companion animals. Some physical, psychological, and social benefits and disadvantages of pet ownership for older adults were also discussed.

Chapter 2 will provide a historical background of the human-animal bond as well as a literature review on both seminal and recent studies on the topic of pet ownership and older adults. Chapter 2 also provides an explanation and rationale for the use of biopsychosocial theory as a construct for the present study. A detailed discussion on the subject of aging is also included in Chapter 2.

Chapter 2: Literature Review

Introduction

In the last decade. the topic of older adults and their pets has been examined in both quantitative and qualitative studies. The present study addressed a vulnerable group: that of older physically impaired males and the relationship they have with their pets. There have been no previous studies that examined pet ownership for older males with physical impairments. There have been many studies on individuals and companion animals where most of the volunteer participants are female (see Antonacopoulos & Pychyl, 2010; Feng et al., 2014; Guzman et al., 2009). The present study is the first of its kind where older physically impaired male participants were interviewed about the relationships they have with their pet and how it impacts their physical, emotional, and social health.

Older adults are vulnerable to physical decline and social isolation. The purpose of the present study was to gain a deep understanding of experiences older males have with their companion animals and how that experience impacts their physical, psychological, and social health. Through intensive interviews with 10 older male participants, the present study provides a rich understanding of the relationships the participants have with their pets.

Chapter 2 focuses on a group of older male adults with several physical, psychological, and social needs. Pets can provide the older adult with companionship (Friedmann & Son, 2009; Smolkovic, Fajfar, & Mlinaric, 2012), motivation to exercise (Pohnert, 2010), improved psychological well-being (Herzog, 2011; Keefer, Landau, &

Sullivan, 2014), and less loneliness (Keegan, 2014; Krause-Parello & Gulick, 2013; Pikhartova et al., 2014; Stanley et al., 2014).

A sense of security is a benefit of animal ownership (Payne, DeAraugo, Bennett, & McGreevy, 2015; Zilcha-Mano, Mikulincer, & Shaver, 2012). Pet ownership leads to less depression (Chur-Hansen, Stern, & Winefield, 2010; Nelson, 2015; Peacock et al., 2012), and increased self-esteem as they demonstrate the ability to care for the animal (Anderson et al., 2015; Campo & Uchino, 2013). Physical health benefits (Feng et al, 2014; Friedman et al., 2007; Levine et al., 2013; Pohnert, 2010) and improved social health (Sakakibara et al., 2014; Silcox, Castillo, & Reed, 2014) have also been shown.

Chapter 2 covers the human-animal bond, pet attachment, pets and physical, psychological, and social health, benefits and hazards of pet ownership, aging, aging and pet ownership, aging and socialization, disability and disease, falls, and self-perceived health. Chapter 2 also discusses biopsychosocial theory as a philosophical framework and practical orientation for the study. Several of the studies cited in the literature review examine the relationships that individuals have with their pets and the present study fills a gap in the literature because the underrepresented physically impaired older male and his companion animal have not been previously studied.

Literature Search Strategy

The literature search was conducted through the Walden University Library. The databases of PsychInfo, PsychArticles, Medline, and Google Scholar were used to search the literature. I also retrieved information on older adults from the US Census, the CDC, the Administration on Aging for the U.S. Department of Health and Human Services

(AOA) the Federal Interagency on Aging-Related Statistics, the NIH, and the U.S. Pet Ownership and Demographics Sourcebook.

In order to conduct an exhaustive review of the literature, the following key terms and phrases were identified and used: *Pet ownership*, *pet ownership and older adults, pet ownership*, *older adults, and disability*, *aging*, *aging and pet ownership*, *human-animal bond*, *pet attachment*, *self-perceived health and the older adult*, *frailty*, *mental health and the older adult*, *aging and socialization*, *chronic disease and the older adult*, *falls*, *falls and pet ownership*, *loneliness and the older adult*, *self-efficacy and the older adult*, and *biopsychosocial theory*. The literature search produced 155 peer-reviewed articles and six books. Using the ProQuest search engine in the Walden University Library, five dissertations using the key phrase *older adults and companion animals* were also examined. In conducting this exhaustive literature search, very few studies were found on the topic of older males and their relationships with their pets. To date, there have been no quantitative or qualitative studies that focus solely on the older physically impaired male's experience with pet ownership, or the older males' experience with disability and pet ownership.

Theoretical Foundation

Biopsychosocial Theory

Engel (1977) posited that the reductionist view of biomedicine was limited, and a new theory and practice needed to be put in its place. The reductionist view sees biomedicine as focusing on disease as purely somatic, where psychological and social

factors are not as important. Traditionally, physicians were trained to assume that the language of chemistry and biology would suffice to explain the phenomenon of disease.

Engel (1977) illustrated that the biomedical model did not take into account the interaction of diverse factors like the patient's perception of disease, behaviors, emotions, social relationships, and the physician-patient relationship. Engel (1980) also pointed out that stress, fear, and neglect can predispose the patient to disease and these factors must be addressed in order to successfully treat the disease. Engel (1980) stated that ignoring the behavioral and psychosocial factors involved with disease would not provide a comprehensive diagnosis and treatment plan. He stressed that medical schools begin to incorporate instruction on the psychological and social aspects of disease in order to fully treat the whole person.

Engels' (1977) model was inspired by general systems theory that sees the smallest systems in science (atoms, molecules, cells) as connected to larger systems (organs, body systems) including behaviors and emotions, and the larger systems of family, community, and society. Engel developed a biopsychosocial hierarchy beginning at the cellular level, moving toward the complexities of the individual, and ending with the larger society (Borrell-Carrio, Suchman, & Epstein, 2004).

Engel (1977) believed that this hierarchical system covered all aspects of disease. He also touted the theory to be insurance that both doctor and patient understand the full meaning of the disease. If a diagnosing physician fails to identify the behaviors and beliefs of the individual, he or she will be limiting the chances of a good prognosis. With both diseases, there are effective medications to help control symptoms; however,

compliance with treatment is often related to psychological factors that must be identified and addressed. Smith, Fortin, Dwamena, and Frankel (2013) showed that although the biological factors of disease are essential to know, a goal of the biopsychosocial clinician is to accurately analyze the patients' verbal account of the experience of disease. This takes into account the patients' medical, emotional, and social profile.

Engel (1977) stated that psychological and social factors could be studied and understood in scientific ways. In his seminal article about the clinical application of the biopsychosocial model, Engel (1980) described a case study of an older man with a history of heart disease. One day at work, the man began to experience chest pain. For 60 minutes, the man did nothing about his symptoms, hoping that they would disappear. He attributed the pain to gas or a muscle strain. After an hour, a fellow employee told him he looked ill and advised him to go to the hospital immediately.

Upon arrival at the hospital, the man was no longer experiencing chest pain, however 30 minutes into the medical workup, he lost consciousness, and the monitor showed that he had a heart attack. Defibrillation was successful, and the patient made a good recovery. When the man was interviewed after the event, he recalled that when he arrived at the hospital he was calm and feeling better but after 15 minutes, two nurses had been unsuccessful intubating him after several punctures and went to get help. This caused the man to feel tremendous anxiety as he thought the professionals did not know what they were doing. Within minutes, he became flushed and began experiencing intense chest pain again that was followed by unconsciousness. This was an example of how psychological factors can influence the onset of symptoms in patients with heart

disease. Later, when the physicians took all this information into account, not only were they able to give the man medical advice, they were also able to discuss cognitive-behavioral techniques to help him calm anxiety and encourage and educate the man to not hesitate to get help if he has symptoms.

Since Engel's time, there have been significant developments in the understanding of the biological underpinnings of psychosocial processes through the advancements in microbiology and psychoneuroimmunology (Henningsen, 2015). The emphasis on the doctor-patient relationship is the primary benefit of the biopsychosocial approach (Henningsen, 2015). The participants in the present study were all required to have some type of physical impairment. Through intensive interviewing the older males had the opportunity to answer questions that asked about the lived experiences of their disease from a biopsychosocial point of view and how their animal affected their physical, emotional, and social experiences.

Health and Well-Being

Another focus of biopsychosocial theory is how interpersonal (social) and intrapersonal (emotions) events can result in the physiological disease process (Suls, Krantz, & Williams, 2013). Experts in the area of stress research say that in order to understand the science of stress, it is important to know the neuroendocrine, biochemical, and immune effects of stress; and to fully understand the psychosocial aspects of stress (Suls et al., 2013). It is important to know about the patients' personality, emotions, behaviors, and social support (Suls et al., 2013). In other words, many systems contribute to the etiology of stress.

Surgery is stressful, and it is common for older adults to develop depression after spinal surgery (Ayers & Ring, 2013). Health practitioners must be aware of evaluating and treating emotional health in order for the patient to succeed in recovering physically (Ayers & Ring, 2013). The biopsychosocial model can be applied to the outcomes of orthopedic surgery where physical recovery is influenced by emotional and social factors (Ayers & Ring, 2013). Physicians evaluating biopsychosocial variables prior to knee replacement surgery provide insight into how patients will recover physically (Ayers & Ring, 2013). Consider the older male who due to the deterioration of ligaments needs a full knee replacement. Focusing solely on the medical model, the physician informs the patient about the mechanics and physical recovery of the operation. However, if the physician includes covering issues like emotional health and social support prior to, and after surgery, depression can be minimized, and social support systems can be put in place. In this situation, the biopsychosocial model illuminates psychological issues such as behaviors, emotional states, and beliefs as well as social factors like family and community support. In order to evaluate self-care support after surgery, physical, emotional, and social factors also need to be addressed (Ayers, & Ring, 2013).

In recent years, health professionals who are experts in pain management use the biopsychosocial model to identify how pain interacts with the physical, psychological, and social experiences of the patient (Matteliano, St. Marie, Oliver, & Coggins, 2014). Although pain medications are generally the first line of defense against pain, by using the biopsychosocial approach, the physician can evaluate and recommend cognitive-behavioral techniques to deal with the management of pain and emotions and include

referrals to social support groups for chronic pain (Matteliano et al., 2014). This is an example of how the biopsychosocial model is a patient-centered approach.

In a seminal paper, Novack et al. (1997) found that health care professions need to have a good understanding of themselves from a biopsychosocial point of view. In other words, it is necessary to have self-insight and confidence in asking difficult questions to successfully interview the patient about symptoms, emotions, and social support. Medical students and health care professionals often have difficulty implementing biopsychosocial interviews because they have not developed the ability of self-awareness, however, the capability to thoroughly interview the patient to cover symptoms, emotions, and social support can be learned (Epstein, 2014).

I have been a licensed psychotherapist for 30 years. I am an experienced interviewer and have received my own individual psychotherapy in order to gain a better understanding of my internal thoughts, beliefs, attitudes, and emotions. In all patient intake evaluations, I ask detailed questions about medical health, psychological health, and social support in order to develop an appropriate treatment plan. As Novack et al. (1977) recommends, I believe I have a good understanding of myself and have many years of experience treating the whole patient. Although it is clear that I was not in the therapist role while conducting the present study, I believe my years of experience helped me conduct detailed interviews coming from a biopsychosocial approach. In the present study, the older males discussed their lived experiences about the relationship they have with their companion animal and how their pet affects their physical, emotional, and social lives.

Biopsychological Aspects of Pet Ownership

In one study on older adults and pets using the biopsychosocial approach, the researchers interviewed older stroke survivors to evaluate how their animal helped with mobility problems, depression, and socialization (Johansson et al., 2014). The themes that emerged from the qualitative interviews were that older stroke survivors saw their animals as motivators to physically and psychosocially recover. The participants stressed that the most salient aspect of pet ownership after stroke was the perception that pets care for the individual like the individual cares for their pet. The older adults also felt that pet ownership was a positive distraction from the residual effects of a stroke.

Levine et al. (2013) found that companion animals are associated with a reduction in heart disease risk factors. Companion animals help the older adult to cope with loneliness, depressed mood, motivation to exercise, and help build social support systems (Krause-Parello, 2012; Ruzic, Miletic, Ruzie, Persie, & Laskarin, 2011). All of the participants in the present study suffered some physical impairment. In the present study, using a biopsychosocial approach, interview questions focused on how the human-animal relationship affects overall health and well-being.

Nelson (2015) conducted a study examining how feline companions help facilitate the process of healing from a mental illness. The participants answered questions about the psychological, physical, and social benefits of cat ownership related to their mental health issue. Physically, the participants touted the benefits of caring for cats because cats are largely self-sufficient and east to take care of. Psychologically, the participants felt they received emotional support, improved mood, and a sense of commitment to their

cats. Some participants believed their cats prevented them from taking their own lives through suicide. The themes regarding the social benefit of cats were about how the participants considered their cats to be friends and companions that prevented them from getting lonely.

Shoemake (2010) examined the human-animal bond from a biopsychosocial perspective. The experiment consisted of showing participants photographs that depicted a scene with no animals or humans, a scene with a human only, and a scene with a human and animal present. Shoemake (2010) tested for eye tracking and memory recall. The results for eye tracking were that the participant's gaze was longer on the human only, and human-animal photographs. The participants had the best recall of the elements of the photograph showing a human-animal presence. Shoemake (2010) concluded that the human-animal bond influences individuals on biological, psychological, and social levels.

Finally, Pohnert (2010) used biopsychosocial theory in her study on the physical health of older adults related to pet ownership. Pohnert (2010) showed that pet companions indirectly influence behavioral patterns that involve psychological and social behaviors that affect biological health. For example, older adults who own dogs are more likely to exercise their pets by walking daily. Socially, dog owners have increased opportunities to meet friends and other dog walkers while out and about with their pets. Pohnert's (2010) quantitative study showed that compared to non-pet owners, pet owners reported 38% less congestive heart failure, 74% less emphysema, 11% less arthritis, and 32% fewer strokes.

Critics of the biopsychosocial method complain that there is no formal way to operationalize the use of the model to evaluate a patient's physical, psychological, and social experiences (Smith et al., 2013). Many health professionals believe that there should be a well-defined interview that is repeatable and valid (Smith et al., 2013). It is also reported that the inclusion of training medical residents to assess psychosocial health is minimal and suboptimal (Smith et al., 2013). This issue has motivated health professionals to develop intensive questionnaires to support the biopsychosocial model.

In summary, the present study was approached using the tenets of biopsychosocial theory. The objective of the study was to understand the older males' relationship with their companion animals from a biological, emotional, and social point of view. The interview questions included specifics regarding how the participants experienced the connection with their pets, and whether the older males perceived that relationship to affect their overall physical, psychological, and social health.

Aging

The latest United States census brief on older adults was completed in 2010 (US Census, 2010). Statistics at that time showed that the population of older adults aged 65 and over were larger than any counted in previous censuses (15.1% increase) and growing faster than the United States population as a whole (9.7%; US Census, 2010). Compared to the 2000 Census, the 2010 Census showed that older men are living longer than previously reported. The largest increases of older men were between the ages of 85-89 (an increase of 46.5%) and between the ages of 90-94 (an increase of 50.3%). Even though these statistics are significant, the census also showed that women continue

to outnumber men as they age, living longer and with lower mortality rates in old age compared to males (US Census, 2010).

The baby boomer generation is responsible for much of the increase in numbers of older adults. The baby boomer age range consists of individuals born between the years 1946-1964, when birth rates in the United States rose sharply as returning soldiers from World War II began to marry and raise families (Blackburn & Dulmus, 2007). It was probable that some of the participants in the present study were members of the baby boom generation as many of these individuals were approaching their late 60s and early 70s. The AOA (2014) states that the population of adults over the age of 65 numbered 44.7 million in 2013 showing an increase of 24% since 2003. In America in 2013, one out of every seven individuals of the population was an older adult. In 2013, approximately 28% of older adults lived alone (8.8 million females and 3.8 million males). In 2013, there were 19.6 million older men and 25.1 million older women living in the United States (AOA, 2014).

Regarding future growth, the AOA (2014) showed that in 2013, 14.1% of the population was over the age of 65; and the expected growth is to be 21.7% of the population by the year 2040. The World Health Organization (WHO) (2015) stated that between 2015 and 2050, the world's population of adults over the age of 60 will increase from 12% to 22%. All of this information is relevant to policy makers, health care workers, gerontologists, researchers and more. It shows that programs that foster health care and rights for older adults must adapt and change to meet the needs of older adults who are part of the obvious growth of the population over the age of 65.

The present study focused on the lived experiences of a small group of older men over the age of 65, to examine the relationships these individuals had with their companion animals. There has been much written about in the literature regarding the benefits of animal therapy as a public health program for older adults who reside in nursing homes and assisted living environments (Fields, Anderson, & Dabelko-Schoeny, 2014). The present study, however, examined older males who live in the community with their pets in a biopsychosocial context to identify the experiences, advantages, and disadvantages of animal ownership.

Biological Aging

Aging is defined as the process of continuing decline that begins in adulthood and continues until death; and biological aging is when the individuals' organs and systems begin to deteriorate (Blackburn & Dulmus, 2007). Physically, aging happens because of the accumulation of molecular and cellular damage that leads to a gradual decrease in physical capacity, and a higher risk of disease (WHO, 2015). Biologically, aging is a loss of physiological function, and these functions become losses over time (Blackburn & Dulmus, 2007). Biological aging is seen as the body's inability to fight deteriorative stressors that influence all biological systems (Agogo, Miller, & Schewe, 2014).

There are many different theories on the biology of aging. Wear-and tear theory posits that as humans age, what determines the quality of their aging is a result of the way they live their lives (Blackburn & Dulmus, 2007). Although modern research does not support this theory (Kolling & Knopf, 2014) it is probably the most widely assumed belief the average person has about aging. For example, if a man who was a smoker for

30 years dies at the age of 65 from lung cancer, one could say that he died because of the way he lived. However, Kolling and Knopf (2014) say that the wear-and-tear theory of aging is not supported in the literature because humans can rebound from environmental stressors that affect aging. There are theories of biological aging that focus on evolution, free-radicals, the immune system, and the mutation of genes (Sacher, 1982; Everitt & Meites, 1991; Gavrilov & Gavrilova, 2002) but there is no unifying theory on the biology of aging.

Aging and Health

According to the CDC (2010), two out of every three Americans over the age of 65 have multiple chronic conditions; medical treatment for these individuals accounts for 66% of the health care budget in the United States. The leading causes of death for older adults are heart disease, cancer, stroke, respiratory disease, and Alzheimer's' disease (CDC, 2013). Gerontologists describe what happens physically, cognitively, psychologically, and socially with aging. In studying the older adult, researchers are interested in what constitutes healthy versus non-healthy aging.

Chronic diseases, such as, arthritis are challenges for many older adults. For example, the CDC (2013) states that by the year 2020, American adults over the age of 65 will number 9.7 million. An older adult, who suffers from a chronic disease, must deal with the management of the illness, which is paramount to his or her well-being (Aldwin & Gilmer, 2013). This phenomenon is not a confirmation that older adults who suffer with a chronic disease are not aging well, instead, the successful management of

the disease can help the older adult to engage in healthy behaviors that constitute healthy and successful aging (Aldwin & Gilmer, 2013).

One of successful aging's essential components is the preservation of cognitive functioning (Warsch & Wright, 2010). Due to the nature of inflammation, subclinical cardiovascular disease, and neurodegenerative processes, cognitive aging is a gradual expected phenomenon for adults aged 65-90 (Warch & Wright, 2010). For example, some short-term memory loss is a common symptom for older adults and physicians do not consider this to be out of the ordinary (Warch & Wright, 2010). Brain imaging studies have illustrated the process of cognitive aging showing that adults over the age of 50 show changes in brain volume that occur faster than the changes in volume in the brains of younger adults (Dennis & Cabeza, 2008).

The profile of an older adult with normal aging would be the 70 year old woman who experiences some short-term memory loss, coupled with a physical issue such as arthritis (Warsch & Wright, 2010). However, the public holds many misconceptions about normal aging (Bettens, Ownsworth, Hohaus & McKendry, 2014). The common stereotypes associate aging with disease, incompetence, and dependence (Bettens, et al., 2014). However, even though many older adults suffer from chronic disease, they often continue to be good contributors to society in the workforce, in volunteer positions, and at home.

Mild cognitive impairment (MCI) is described as an intermediate state between normal aging and dementia (Van der Mussele et al., 2013). An older adult with MCI may experience memory or other cognitive decline that does not affect his or her basic

activities of daily life (Van der Mussele et al., 2013). The etiology of MCI can result from vascular, neurogenerative, metabolic, and psychiatric disease and older adults with MCI are likely to have predementia Alzheimer's' disease (Van der Mussele et al., 2013). Staying mentally active and continuing to learn new things along with physical exercise is known to lower the risk of suffering from MCI (Agogo, Miller, & Schewe, 2014).

One of the risks of getting older is frailty. Frailty is defined as an increased vulnerability to impairment in multiple systems (Bherer, Erickson, & Liu-Ambrose, 2013). Frailty is associated with adverse conditions that predispose the older adults to disability, hospitalization, and death (Bherer et al., 2013). Beginning an exercise program that includes cardiovascular and weight-bearing exercise greatly reduces the likelihood of an older adults becoming frail (Clegg, Young, Iliffe, Rikkert & Rockwood, K. (2013).

Mental Health and the Older Adult

The WHO (2015) stated that over 20% of older adults suffer from a mental disorder. The most common psychiatric disorder for older adults is depression. Depression is both undertreated and under-diagnosed in health care settings and in some cases, family members, physicians, and caregivers believe the symptoms of depression are a normal part of aging (WHO, 2015). The emotional states of depression for older adults are low mood (dysphoria) and anhedonia, which is the loss of interest in activities that the older adult previously found pleasurable. Older adults who are depressed also experience feelings of worthlessness, difficulty making decisions, sleep issues, an increase or decrease in weight, and recurrent thoughts of death (Blackburn & Dulmus,

2007). Risk factors for suicide for older adults are being male, depressive symptoms, perceived poor physical and emotional health status, and a lack of social support (Turvey et al., 2002).

Depression in older adults can be caused by biological, cognitive, behavioral, and/or social reasons. Biologically, depression may be caused by the irregular functioning of neurotransmitters in the brain that work as mood regulators (Blackburn & Dulmus, 2007). The administration of serotonin-replacement therapy (anti-depressant medication) treats this endogenous depression. Depression can also occur if an individual has a cognitive-behavioral pattern of negative thinking (Blackburn & Dulmus, 2007). Cognitive-behavioral therapy has been used as an effective approach to combat depression because it teaches the older adult to change the way he or she thinks in order to experience and perceive the world more positively (Hofmann, Asnaani, Vonk, Sawyer, & Fang, 2012). Finally, depression can occur for older adults who are recovering from a heart attack, hip fracture, or stroke (Blazer, 2009) or to a situation in the environment, for example, with prolonged grief due to a significant loss (Blackburn & Dulmus, 2007). In the present study, participants were asked about both their physical and emotional experiences and how their pet may mediate stress and/or be an added stressor.

Aging and Socialization

Older adults as a group have experienced more loss than younger adults, where a previously active social life may be diminished by the loss of a spouse, family members, and friends (Scheibeck et al., 2011). Social support for older adults is important as a way to feel loved and cared for, to have the experience of being part of a group, and as a

buffer against difficult, stressful situations (Pohert, 2012). Overall well-being is strongly related to the size of the older adult's social network (Melendez, Tomas, Oliver, & Navarro, 2009). Socially isolated older adults are more likely to become physically ill, and less likely to practice healthy self-care (Pohert, 2012).

Interpersonal social networks improve the health of the older adult especially when he or she seeks regular contact with the individuals, and/or group (Cornwell, Laumann, & Schumm, 2008). Older adults are less social than younger adults because the older adults are marginalized and pushed out of their social roles (Cornwell, et al., 2008). Social support lowers levels of psychological symptoms and loneliness (Cline, 2010). Loneliness for the older adult has been linked with elevated blood pressure, increased risk of cardiovascular disease, heightened inflammatory responses, and mortality (Shankar, McMunn, Banks, & Steptoe, 2011)

Aging and Pet Ownership

Owning a pet has been shown to improve the physical health of its older owner (Feng et al., 2014; Friedman et al., 2007; Hope, 2012). The presence of a friendly dog has a positive effect on blood pressure ratings in older individuals with hypertension who were on or off medication (Friedman et al., 2007). There are many studies that focus on the benefits of dog ownership in which older adults with dogs, exercise more regularly than older adults who are not dog owners (Feng et al., 2014; Hope, 2012; Motooka, Koide, Yakoyama, & Kennedy, 2006)

Owning a pet for an older adult can help improve symptoms of depression (Cherniack & Cherniak, 2014). In one study, researchers examined 144 non-cognitively

impaired elders in institutional settings to see if the presence of a pet would improve symptoms of depression (Colombo, Buono, Smania, Raviola, & de Leo, 2006). One-third of the older adults were given a pet canary to care for, one-third received a plant, and one-third received nothing. The participants who had been given a pet canary to take care of had significantly better scores on the Brief Symptom Inventory at the end of the intervention where the other two groups did not show improvement (Columbo, et al., 2006)

For older adults who suffer from a debilitating health problem, social activity outside the home can sometimes be a challenge. For older adults who live alone, a companion animal has been shown to alleviate feelings of loneliness and isolation (Wells, 2009). Although the human-animal relationship is not a substitute for human social interaction, pets provide companionship, comfort, and entertainment for their older owners (Keefer et al., 2014). Some older adults derive psychological security from their engagement with their pets (Keefer et al., 2014).

Stanley et al. (2014) studied whether pet ownership ameliorates loneliness among older adults who live alone. Stanley et al. (2014) found that 36% of older pet owners reported less loneliness as compared to older adults who did not own a pet (Stanley et al., 2014). The older adults who lived alone without a pet reported more loneliness (Stanley et al., 2014). The present study is different from the studies previously mentioned because it is qualitative research that focused on older male, physically impaired pet owners who have not been represented in the literature.

Older Adults and Disability

The Americans with Disabilities Act (ADA, 2015) defines disability as a physical or mental condition that seriously limits one or more life activities of the individual (Wan & Larsen, 2014). In recent times, the view of disability has shifted from a medical model to a biopsychosocial model in which a focus on the whole person is paramount (Wan & Larsen, 2014). Older adults with disabilities need specific interventions and support to maintain a healthy lifestyle in which physical, psychological, and social needs are met (Blackburn & Dulmus 2007).

Older adults over the age of 65 are at the highest risk for disability, and the older an individual gets, the more likely he or she is to suffer one or more disabilities (NIH, 2010). Between the years 2008-2012, for the older population (65+) of 40.7 million people, 38.7% reported having one or more disabilities and the oldest individuals, aged 85 and older made up 13.6% of the total for older adults with disabilities (Wan & Larsen, 2014). The WHO (2011) denotes disability as impairment in body functions, difficulties with activities of daily living, and limited social participation. Physicians diagnosing disability in older adults examine walking speed, musculoskeletal status, motor control, sensory function, and cognitive status (Lowry, Vallejo, & Studenski, 2012). The CDC (2013) stated that more than two thirds of older adults in America suffer from health conditions including disability that account for up to 66% of the U.S. health care budget.

In the present study, all participants suffered some physical disability that limits their mobility and activities of daily living. This is important because there are no studies that look at the older physically impaired male and his relationship with his pet. To date

there is one qualitative study that examined the experiences older females living in the community, some of whom had physical disability and co-morbid disease, had with their pets (Putney, 2012). Therefore, the present study sought to examine the complexities of animal ownership for the older male who suffers some physical disability or limitation.

Disease and Disability

Many older adults suffer from comorbid diseases in which disability is increased. These diseases include cardiovascular disease, arthritis, stroke, obesity, and mental illness (Chatterji, Byles, Cutler, Seeman, & Verdes, 2014). The most common disabilities for older adults are difficulty with ambulation and mobility, difficulty with independent living due to physical or cognitive limitations, vision and hearing loss, and arthritis (Wan & Larsen, 2014). Rheumatic conditions and arthritis are diseases that affect muscles, ligaments, joints, and tendons that cause stiffness and chronic pain (Hootman, Helmick, & Brady, 2012). Physicians diagnosing disability in older adults examine walking speed, musculoskeletal status, motor control, sensory function, and cognitive status (Lowry et al., 2012).

There are other diseases that have an autoimmune component; such as respiratory, renal, and cardiovascular disease (Hootman, et al, 2012). Diseases of inflammation, such as arthritis and rheumatoid arthritis can affect organ systems like the lungs, heart, and kidneys (Hootman, et al, 2012). Osteoarthritis is the most common type of arthritis for older adults where degeneration of cartilage and bone creates pain and can lead to disability (Hootman, et al, 2012).

When it comes to accomplishing tasks of daily living like dressing, cleaning, cooking, shopping, and self-care, researchers have shown that 23% of older adults who have difficulty with these activities suffer from arthritis (Hootman et al., 2012). Even though diseases of inflammation can cause disability, older adults can be optimistic due to the fact that researchers in the field have shown that over an 18-month period, aerobic and muscle-strengthening exercises can help improve the symptoms of osteoarthritis by 43% (Dunlop, et al., 2005; Penninx, et al., 2003).

Diabetes is another disease that can lead to physical disability. For older adults with diabetes, the risk of developing a disability is increased by 50-80% in the form of cardiovascular and peripheral vascular disease, renal failure, and mobility problems (Wong et al., 2013). For older adults with one or more disabilities, the most widely reported symptom is pain (Patel, Guralnik, Dansie, & Turk, 2014).

In one mixed-methods study, Patel et al. (2014) surveyed a nationally representative sample of older adults and conducted interviews with a large group of older individuals, finding that half of the older adults experienced chronic pain due to a disease or disability, along with decreased physical functioning. The ability to complete basic fundamental living tasks was challenging for 80% of older adults who had pain (Patel, et al., 2014). The present study included interview questions that focused on how the older male adult experiences and manages pain related to his disability and whether the experiences and tasks of pet ownership have an influence on his pain.

Sarcopenia and Frailty

With aging, there is an increase in body fat and a decrease in lean muscle mass leading to the development of sarcopenia, which is defined as the loss of muscle mass and strength that progresses as individuals grow older (Batsis, Mackensie, Barre, Lopez-Jimenez, & Bartels, 2014). Sarcopenia is a major risk factor for disability and is related to frailty, falls, immobility, and functional decline. Today, the rising number of obese older adults with sarcopenia is seen as a public health issue in gerontology (Batsis, et al., 2014). Sarcopenia was higher among women compared to men during the years of age 65-75, but for the older adults over the age of 85 years, sarcopenia was more prevalent in men (Cruz-Jentoft et al., 2014)

An older adult is frail if he or she presents with at least three of the following criteria: self-reported exhaustion, unintentional weight loss, slow walking speed, low levels of physical activity, weakness, and difficulties with activities of daily living (ADL; Gine-Garriga, Roque-Figuls, Coll-Planas, Sitja-Rabert, & Salva, 2014). Many in the health care profession believe that delaying physical decline and disability for older adults is a public health priority because frail individuals are at a higher risk of becoming hospitalized, or dependent on others for their care (Gine-Garriga et al., 2014). In a study on how the intervention of exercise might improve the condition of frailty in older adults, Gine-Garriga et al. (2014) found that with increased physical activity, the gait speed of participants was improved. The present study looked at how the potentially frail older adult male gets exercise in relation to his pet and whether or not the pet motivates him to get more physical activity.

Physical Activity

With all the touted benefits of exercise, most older adults live a sedentary lifestyle that can lead to obesity, cardiovascular disease, and diabetes (Dunlop et al., 2015). Introducing moderate to high physical activity does not necessarily reverse the adverse effects of living a sedentary lifestyle (Dunlop et al., 2015). Moderate to high intensity physical exercise helps to improve the health in disabled older adults (Dunlop et al., 2015). Using a nationally representative sample of older adults from The National Health and Nutrition Examination Survey (NHANES), Dunlop et al. (2015) showed that disabled adults spend two-thirds of their waking time in sedentary activity. A sedentary lifestyle is related to disability in ADL, calling for public health programs that focus on the reduction of sedentary behaviors (Dunlop et al., 2015).

The unhealthy behavior that is associated most with disability in later life is little to no exercise (Artaud, Dugravot, Sabia, Singh-Manoux, Tzourio, & Elbaz, 2013). Physical activity and exercise for older adults has been shown to improve mobility and positively contribute to the prevention of disability and disease (De Vries, Ravensberg, Hobbelen, Rikkert, Staal, & Nijhuis-van der Sanden, 2012). Physical activity includes exercise, housework, walking, gardening, and caring for pets that are all activities of daily living. A lack of physical activity and little cardiovascular and strengthening exercise make older adults more susceptible to becoming frail (De Vries et al., 2012).

In the literature, the ability to walk without assistance is referred to as mobility. Many older adults suffer with mobility due to disability and these individuals need interventions and assistance. Pahor et al. (2014) looked at whether a structured exercise

program would be more effective in improving mobility for seniors compared to an educational program. Over two and a half years of follow-up, the physical activity intervention significantly reduced symptoms of poor mobility in older disabled adults compared to the education program (Pahor et al., 2014). Maintaining physical activity is known to lessen the incidence of disability for older adults (Buford et al., 2012).

The present study examined how owning a pet may inspire older males to get more exercise. Owning a dog, for example, demands that the animal get daily exercise in the form of walks. For older males, owning a cat or bird may be less demanding but also require physical activity by caring for, and cleaning up after the animal.

Pet Ownership and Disability

For older adults with disabilities, pet ownership can be a challenge. Caring for a pet involves feeding the animal, traveling to the store for animal food and supplies, cleaning up after the animal, and in the case of dog ownership, walking the animal (Anderson et al., 2015). In the literature, there seems to be greater support for the health benefits of animal ownership for disabled older adults, and companion animals have been found to improve an older adults' physical and psychological well being (Huss, 2014; Johansson et al., 2014).

One study examined the role of dog walking in the lives of older adults with hemiparesis, which is a condition where due to a cerebral infarct (stroke, or accident) an individual is left with partial or full paralysis on one side of his or her body. Even with older stroke victims, pet ownership of dogs, cats, and birds can be beneficial in helping these older individuals with gait speed, improved mood, and companionship (Johansson

et al., 2014). In the same study, the participants expressed that caring for an animal gave them a reason to fight for recovery from a stroke (Johansson et al., 2014).

For older dog owners, dogs are facilitators of regular walking that decrease sedentary behavior (Feng et al., 2014). Dog ownership motivates older adults to walk regularly and overcome potential barriers to physical activity, like a personal concern for the owners' health, safety, and well being (Feng, et al., 2014). According to the latest version of the U.S. Pet Ownership and Demographics Sourcebook (2012), 43.8% of households where males live alone have at least one pet.

Older male dog owners aged 65 or older show higher dog-walking frequency that their middle aged counterparts (Reeves, Rafferty, Miller, & Lyon-Callo, 2011). Due to the advantages of owning a pet like improved physical activity, less loneliness, and a sense of purpose, pet ownership can be considered an alternative therapy to more invasive, and costly treatment (Anderson et al., 2015). A therapeutic experience includes the phenomenon of healing and treatment of disease and disability. The present study sought to examine the experiences of the older male and whether or not he perceived pet ownership to be therapeutic.

Falls

Older adults are at a high risk for falls that are the most common cause of injury and death among individuals over the age of 65 (CDC, 2010). One in three older adults fall annually and 50% of the falls occur with individuals over the age of 80 (CDC, 2010). Each year in the United States, over 700,000 older adults are hospitalized due to a fall (CDC, 2010).

The WHO (2008) found that for older adults, falls account for 40% of all deaths related to injury. The WHO (2008) also showed that one in five older adults who suffer a broken hip due to a fall will die within a year, and approximately less than one-third will regain their previous level of functioning after a fall. The CDC (2009) showed that there were approximately 86,630 falls a year due to dogs and cats. Older adults over the age of 75 had the most falls and the highest injury rates due to tripping over an animal, (CDC, 2009)

For older adults, the risk of falling is higher than that of younger adults due to co-morbid disease, and poor mobility (Ambrose, Paul, & Hausdorff, 2013). Owning pets can be a potential risk factor for falls due to balance and gait problems that lead to tripping (Ambrose et al., 2013). Older adults who fall due to pets can sustain injuries like fractures or contusions, and head injuries that lead to death (Heinrich, Rapp, Rissmann, Becker, & Konig, 2010).

Among older adults, approximately half of falls result in minor lacerations or bruises whereas 10% of falls lead to fractures or traumatic brain injury (TBI; CDC, 2010). Ninety percent of hip fractures among older adults are due to falls (CDC, 2010), and 46% of deaths due to TBI are a result of a fall (Goldacre, Roberts, & Yeats, 2002) Risk of Falling is categorized as either having an intrinsic or environmental cause (Ambrose et al., 2013). Intrinsic reasons for falling among older adults are advanced age, gait, lower-body strength, chronic disease, cognitive impairment and poor nutrition (Markle-Reid et al., 2010). Extrinsic reasons for falling are often preventable. They

include medications, inactivity, inappropriate footwear, social isolation, and household pets (Markle-Reid et al., 2010).

When older adults fall, many of them develop a fear of falling. This phenomenon can sometimes lead the older adult to limit their activities and develop dependencies on others for assistance with daily living (CDC, 2010). In a qualitative study, Chur-Hansen, Winefield and Beckwith (2008) interviewed non-pet owners between the ages of 70-88, who had previously owned a pet, to understand their reasons for not wanting another pet. Although most of the participants felt positively about pets, several of them chose to not get another pet because they were afraid to fall. A few previous cat owners commented that because cats were frequently running around the elder's feet, cats posed a fall risk. Four of the eight participants also reported that due to their fragile bones, pet ownership was too much of a risk for falls (Chur-Hansen et al., 2008). The present study gave older males the opportunity to discuss their concern for falling as it related to their pet.

In one Australian study, Kurrle, Day, and Cameron (2004) studied 16 older adults between the ages of 75-88 who had experienced a serious injury due to a fall caused by a pet dog or cat. Examples of these falls ranged from falling due to a dog pulling the older adults on a lease, to tripping over cats in a darkened hallway, to falling backwards due to a cat or dog being behind the older adult. The present study sought to understand the older male's experience with how his pet may be a fall hazard. Although dog walking for older adults poses a falling risk, researchers have shown that walking for weight-bearing exercise and leisure is a way to strengthen the body to prevent falls (Tobias et al., 2014).

Increased physical activity did not predispose the older adult to falls, but rather, improved physical activity helped to prevent falls (Pereira, Baptista, & Infante, 2014).

Physically frail older adults can reduce their risk of falling by adhering to a structured exercise program that includes endurance, balance, resistance, and strength training (Cadore, Rodriguez-Manas, Sinclair, & Izquierdo, 2013). Animals themselves can assist an older adult in learning how to prevent falling. Older adults with no disabilities improved their balance by enrolling in a therapeutic horseback riding training class (Homnick, Henning, Swain, & Homnick, 2015). In comparing results between the therapeutic group and the control group, Homnick et al. (2015) found that balance was improved in the older adults who participated in the horseback riding training, concluding that the intervention was important for the prevention of falls. The present study sought to understand whether the older male considered his pet to be a help or a hindrance regarding the prevention of falls.

The CDC (2010) recommends that older adults should speak to their health-care professionals about evaluating the risk of falling in the home. The CDC (2010) also encourages older adults to do strength and balancing exercises, check their vision, and look for environmental hazards, like getting rid of things that can be tripped over. When discussing fall prevention strategies with older adults, Robinson, Newton, Jones, and Dawson (2014) showed that these individuals respond better to positive communication as opposed to negative communication. For example, if health care workers emphasized the advantages of strengthening exercises for fall prevention, the older adults responded more positively, and were encouraged, compared to the health care worker stressing the

strong likelihood and perils of falling for older adults. The present study had interview (prompts) questions that asked about how the older males' health professional has prepared him with information about falls.

Older Adults and Socialization

A theme in health psychology is the strong relationship between human social connections and illness and mortality (Eisenberger, 2013). Socially integrated individuals live longer, have better mental health, and show better resistance to several conditions such as cardiovascular disease and cancer (Chida, Maner, Wardle & Steptoe, 2008; Miller, Chen & Cole, 2009; Uchino, 2006). Kharicha et al. (2007) showed that individuals with limited social interaction, report unhealthy behaviors like poor diet, heavy drinking, and little to no exercise.

Socially isolated individuals had poorer systolic blood pressure recovery and increased cholesterol ratios (Grant, Hamer, & Steptoe, 2009). Social relationships for older adults are positively associated with physical, and emotional health status (Chang, Wray, & Lin, 2014; Cohen, 2002). Regular, healthy social interaction helps older adults' self-perceptions of dignity and independence (Black, Dobbs & Young, 2015).

In a study by Adams, Leibbrandt, and Moon (2011), the authors found that older adults reported that their preferred leisure activity was socializing with others. Leisure activities are defined as satisfying activities that older adults engage in to restore physical and social resources (Chang et al. 2014). In another study, Hand, Law, McColl, Hanna, and Elliott (2014) examined the different types of social support that motivated older adults with chronic health conditions to participate in activities of daily living and

socializing. Social support from others could be emotionally supportive, aid in decision making, and help the older individuals engage in interaction through leisure activities (Hand et al., 2014). The present study examined whether or not the older male participants perceived the time they spend with their pet to be a leisure activity that helps them to restore physical and emotional balance in their lives.

For older adults, socializing may decrease due to the burden of caregiving or the death of friends and family (Black et al. 2015). Older adults report putting greater personal effort into developing and maintaining close relationships compared with younger adults (Lang, Wagner, Wrzus, & Neyer, 2013). In other words, some older adults must try harder to socialize than younger adults because they tend to be more isolated, suffer from a chronic illness, and have experienced bereavement due to the loss of friends and family members (Lang et al., 2013).

Mejia and Hooker's (2013) research included examining older adults' progress toward social goals. Older adults are more likely to pursue social relationships if they perceive them to be emotionally supportive (Mejia & Hooker, 2013). Men tended to report more distal relationships with less support, where women reported more close relationships (Mejia & Hooker, 2013). Through intensive interviews, the participants in the present study had the opportunity to describe the quality of their social lives, and whether their pet was perceived to be a supportive figure for them.

Older Adults Living Alone

According to the literature, the prevalence of older adults living alone in the United States is on the rise (Bromell & Cagney, 2014; Federal Interagency Forum on

Aging Related Statistics (FORUM), 2012; Werner, 2011). FORUM (2012) reports that more older women live alone (37%) than men (19%). The same agency reported that older adults spend between 29% and 32% of their day in leisure activities but only 8% of their day communicating and socializing. Overall participation in life's activities declines across the life span, and this is particularly true with older adults (Anaby et al., 2009). Participation is defined as taking part in activities such as work, attending school, socializing, learning, physical activity, entertainment, and religious practice (Anaby, Miller, Eng, Jarus, & Noreau, 2011). For older adults who have a disability, getting out to participate and socialize may be a challenge. For those who suffer from chronic conditions, health professionals agree that enhancing participation in the form of social activities can be beneficial for the overall health of older adults (Anaby et al. 2009).

Participation in social activities for older adults is highly influenced by emotional distress, poor balance, and chronic conditions (Pang, Eng, & Miller, 2007). When older adults suffer from some form of physical disability, it can interfere with their ability to walk and participate in activities outside the home. For example, the older adult male who lives alone and deals with a disability on a daily basis may find that social activities away from home are quite challenging. The present study examined how the older adult male perceived his experience with participation and socialization.

Loneliness

Loneliness and social isolation can have a deleterious effect on both the behavioral and biological health of older adults (Shankar et al., 2011). Loneliness has been associated with several physiological responses like elevated blood pressure,

impaired sleep, increased vascular resistance, obesity, altered immunity, and poorer overall physical health (Cacioppo, Hawkley, & Thisted, 2010). Loneliness has also shown to be linked with psychiatric conditions such as suicidal ideation, and depression (Cacioppo et al., 2010). For older adults, loneliness increases the risk of poor physical and mental health, and mortality (Hagan et al., 2014).

Consider the older male who suffers from a physical limitation or disability. It may be challenging for him to get around due to mobility issues. Where once he was a person who could get up and go, today he is dependent on others to help him meet his social needs. If this same individual, like others his age (65+) has lost family members and friends due to age issues, he may be socially isolated. This is where loneliness can set in, potentially predisposing the older man to physical disease and depression (Hagan et al. 2014). The negative effects of loneliness should be considered a public health hazard for older adults (Hagan et al., 2014).

Older adults who live alone and own a pet are 36% less likely to feel lonely compared to older adults who did not own a pet (Stanley et al., 2014). Living with companion animals benefits the overall health, including social health, of the older adult (Enmarker, Hellzen, Ekker, & Berg, 2014; Wells, 2009). Smith (2012) found that older adults with impaired mobility experience more loneliness. In her qualitative study, Smith (2012) found that for many of the older adults, owning a pet helped them to feel less lonely. For example, one participant remarked that her pet was always there for her in good times and bad times. "She wants to be petted and it's something there that cares… she's my buddy" (Smith, 2012 p. 304).

Krause-Parello (2012) studied pet ownership and older women and sought to examine how companion animals help with loneliness and social support. Pets provided the older women with some social support through companionship and in particular, the participants felt that taking care of their pets gave them a sense of purpose (Krause-Parello, 2012). The older females also reported that their pets helped them to feel less socially isolated, and their pets were a coping resource when dealing with loneliness or depression (Krause-Parello, 2012). There are no previous studies that focused on older males, pet ownership, and its relationship to loneliness.

The present study sought to understand the lived experiences of older males who suffered from some physical disability and their relationship with their pets. Participants had the opportunity to speak about loneliness and whether their pet helped to ameliorate the experience. Pet ownership does not necessarily protect older adults from being lonely (Pikhartova et al., 2014). However, in a large quantitative study, women reported being less lonely because of their pets compared to older men (Pikhartova et al. 2014).

Cornwell and Waite (2009) did a study on how older adults experience social disconnectedness and perceived isolation. Social disconnectedness is defined as having limited connections with other individuals and social activities. Perceived isolation is defined as an individuals' subjective experience regarding his or her social relationships and activities. Social disconnectedness was particularly prevalent for older adults due to stressful life course events and disability (Cornwell & Waite, 2009). If an older individual perceived himself to be isolated, his chances of experiencing physical and

mental health declines were higher compared to individuals who did not perceive themselves to be isolated (Cornwell & Waite, 2009).

Older men who have an optimistic disposition are less lonely than older men who do not have dispositional optimism (Rius-Ottneheim et al., 2012). Ruis-Ottneheim et al. (2012) hypothesized that older men with optimistic dispositions would feel more positive about their existing social life and have higher interest in developing new social contacts, and they proved this to be true. For older men, an optimistic disposition was a protective factor against loneliness despite the age-related losses they had experienced in their lives (Rius-Ottneheim et al., 2011). In the present study, the participants had the opportunity to discuss their own perceptions of their personalities and whether animal ownership was related to, or relevant to their natural disposition.

In today's world, a common way to communicate with others is through Internet social media sites. When older adults are computer literate, an option to protect against loneliness and isolation is to connect with others via the Internet. Braun (2013) surveyed 124 internet-using older adults between the ages of 60 and 90 to better understand what obstacles there may be for older adults to utilize social networking websites. If older adults perceived social networking sites to be useful, easy, trustworthy, and a good way to communicate with younger family members and friends, the older adults were more likely to use the Internet to socialize (Braun, 2013).

Social websites like Facebook are a way for individuals to stay in touch with friends and family independent from their geographical location. Zheng, Spears, Luptak, and Wilby (2015) did a study examining the perceptions that older adults have about the

use of the Internet. Older adults' Internet use can be a positive social facilitator, however, the Internet is still something that many older adults perceive to be somewhat daunting (Zheng et al. 2015). There are countless websites that offer social connections and many individuals devote time posting pictures of their pets. The present study included questions about the older male adult's experience with social media in relation to his pet.

The primary human benefit of animal ownership is companionship (Antonacopoulos & Pychl, 2010; Peacock et al., 2012). Cohen (2002) found that when pet owners were told that their pet caused a serious health risk (i.e. allergies), 25% of participants reported that they would under no circumstance get rid of their pet. The present study included similar questions about what the older male would do if their health professional advised that he no longer keep his companion animal.

Self-Perceived Health

Self-perceived health is defined as a person's own evaluation of his or her health (Abolfathi Momtaz, Ibrahim, & Hamid, 2014). In studies, self-perceived health is usually examined by asking participants to rate their own health using a five-point scale from poor to excellent (Machon, Vergara, Dorronsoro, Vrotsou, & Larranage, 2016). Self-perceived health is different from objective health. For example, an individual may have a diagnosis of osteoarthritis, however, due to his or her personal outlook, he or she may or may not consider him/ herself healthy (Gana et al. 2013). This same individual who suffer from chronic pain might expectantly feel as though he or she is in bad health, however, researchers have shown that especially with older adults, self-perceived health

can differ from objective health (Gana et al., 2013). In the present study, the participants had the opportunity to discuss both their objective health status as well as their own perceptions of their physical, emotional, and social health.

Self-Perceived Health and Disability

Although objective physical and mental health is linked with self-perceived health, for older adults, reports of positive self-perceived health are sometimes surprisingly coupled with disability and advancing age (Henchoz, Cavalli & Girardin, 2008). In other words, many older adults report their health to be satisfactory even when their physical and mental well-being is failing. Self-perceived health depends on the disabled older adults' ability to self-manage their lives (Cramm, Twisk, & Nieboer, 2014). Somatic symptoms such as chronic pain, tiredness, respiratory distress, and dizziness are related to poor self-perceived health in older adults (Eliasen et al., 2016). For older adults who suffer from physical disability or frailty, self-perceived health can be an indicator for mortality (Cramm et al., 2014). Jylha (2009) and Tomayo-Fonseca et al. (2013) examined the relationship between self-perceived health and mortality have shown that the reliability and validity of the subjective measure is a good predictor of mortality. For example, De Salvo et al. (2006) found that individuals with poor self-perceived health had 2-5 times higher risk of dying after 2-13 years of follow-up study compared to individuals who reported good perceived health.

The participants in the present study all suffered some form of physical disability (e.g. mobility problems, arthritis). It could be assumed that individuals with chronic disability may feel negatively regarding their perceived health. However, studies about

self-reported health have illustrated that even older adults who are wheelchair users can have a positive view of their overall physical, psychological, and social health (Anaby et al., 2009; Sakakibara et al., 2014).

Disability and Self-Efficacy

Self-perceived health is related to self-efficacy. Simply explained, self-efficacy is the individual's own belief in him/herself to accomplish and overcome life's challenges. High self-efficacy is often associated with a positive outlook on life and researchers have shown that even disabled older adults can have high self-efficacy, which in turn results in positive perceived health, more participation in activities, and a better social life (Sakakibara et al., 2014). Even older wheelchair users reported being in better overall health if they had good self-efficacy (Sakakibara et al., 2014). This was an example of how self-efficacy affected self-perceived health.

Self-Perceived Health and Aging

Self-perceived health generally declined with age, among the oldest-old group of individuals, nearly two-thirds of the participants studied reported their overall health to be good (Eliasen et al., 2016). Older adults over the age of 85 are considered to be the oldest-old. Eliasen et al. (2016) found the oldest-old adults' positive self-perceived health was related to lower health expectations

Adaptation and Giving Support

The role of adaptation plays a significant part in determining self-perceived health status (Jylha, 2009). For example, an older adult who has lived with a chronic disease (e.g. hypertension, rheumatoid arthritis) has had time to adapt to the conditions and

limitations of the disease. Whereas a younger adult at the onset of a chronic illness may report being in poor health, the older adult who has adapted to his condition will often say they are healthy despite their disease. In two studies comparing younger older adults (65-80) to oldest-old adults (85+) on self-perceived health status, the researchers found that younger older adults were focused on the physical and mental aspects of health aging, where the oldest-old adults focused on peace of mind (Cherry, Marks, Benedetto, Sullivan, & Barker, 2013; Martin, Palmer, Rock, Gelston, & Jeste, 2015). Giron (2012), showed that older adults aged 83 and older report better self-perceived health compared to older adults aged 65-82. The literature illustrates this phenomenon and as adults become very old, they have adapted to their health deficits and report feeling well for their age (Giron, 2012; Leinonen, Heikkinen, & Jylha, 2001).

When older adults have the opportunity to share their knowledge and continue to contribute to society through volunteer work, their reports of self-perceived health are more positive than if they did not have these opportunities. Abolfathi Momtaz (2014) examined how social support affected perceived health status in older adults. Giving support to others improved self-perceived health over receiving support from others (Abolfathi Momtaz et al. 2014).

Character, Comparing with Others and Confidence. When older adults possess a character with a positive attitude and a sense of optimism, they are more inclined to perceive their health to be good (Henchoz et al., 2008). Some older adults rate their health by comparing themselves to others in their age group. Consider the older male who suffers from arthritis. His self-perceived health may be more positive if he

thinks of others who are worse off than he is. Of course, an older male in this condition may also perceive himself to be worse off than his peers. Lyra, Lesdinen, Jylha, and Heikkinen (2009) examined gender differences in self-perceived health for older adults, the researchers found that self-perceived health was a stronger forecast of mortality in women. Because women live longer than men, women have more age peers to compare themselves to (Lyra, et al., 2009).

Personality, psychosocial factors and having a sense of control are related to self-perceived health (Hayslip & Cooper, 2012). An individual with an optimistic character is more likely to see the positive side of things. An older adult who has always been pessimistic in nature may only focus on the negative side of things. Confidence in oneself is also a variable in reporting self-perceived health (Hayslip & Cooper, 2012). For example, an older person's confidence in their cognitive skills is related to self-perceived health (Hayslip & Cooper, 2012). If an older male perceives he is experiencing cognitive decline (even if objective tests say he is not in cognitive decline) he may believe he is too unhealthy to take care of everyday tasks. He may feel out of control and insecure about socializing and keeping up with physical activity

Pets and Self-Perceived Health

Living with a companion animal can be a benefit to an older adult's self-perceived health because the animal must be taken care of. Pachana et al. (2005) found that there is a relationship between having pets and self-perceived health. Older women who were pet owners showed that even for the individuals who were frail, they reported that having a companion animal made them feel useful and better about their overall

health. In addition, low loneliness scores related to having a companion animal had a positive effect on self-perceived health (Pino et al. 2014).

Putney (2014) performed a qualitative study with older lesbian pet owners to evaluate their self-perceived psychological health status. The themes identified in the study regarding benefits of animal ownership were companionship, mirroring, caregiving, chosen family, and challenges (Putney, 2014). The female participants stressed the advantages of animal ownership because caring for the animal made them feel useful and better about their health (Putney, 2014). There are no qualitative studies that focus solely on the older male adult, physical impairment, self-perceived health and pet ownership. In the present study, the older males had the opportunity to discuss their self-perception of overall health and how it related to the relationship they have with their companion animal.

The Human-Animal Bond

Since ancient times, animals have been seen as important to human health, healing, and survival (Walsh, 2009a). In ancient Egypt, cats were worshipped, and dogs were such important companions to humans that they believed their dogs would appear as guides in the afterlife. In more recent times, Franklin D. Roosevelt had his dog accompany him to meetings and social events. The dog attended Roosevelt's funeral and later was buried alongside him (Walsh, 2009a).

The American Veterinarian Medical Association (AVMA, 2012) describes the human-animal bond as having existed for thousands of years. AVMA acknowledges how the human-animal bond is important to the owners' and communities' health, and that the

human-animal bond's most meaningful asset for a veterinarian is that it serves and influences veterinary medicine, which in turn, serves society. The relationship between humans and animals includes physical, psychological, and emotional interactions that influence the health and well-being of both the human and the animal (Keegan, 2014).

For older adults with disabilities, the human-animal bond has been shown to help facilitate better social, psychological, and behavioral well-being (Silcox et al., 2014). There is a large literature base about the physical and psychological health benefits of the human-animal bond, reducing the challenges of illness and creating an increase in exercise and a reduction in depression (Chur-Hansen et al., 2010). For older adults, pets can provide desired tactile contact especially when they have suffered the loss of a spouse, friend, family member, or independence due to disability (Horowitz, 2008). Older adults who live alone benefit from pet ownership because pets mitigate feelings of loneliness and isolation (Keegan, 2014).

Silcox et al. (2014) found that a loving animal that demonstrates unconditional regard toward his or her owner helps improve the owner's self-acceptance. The human-animal bond affects the health and emotional well-being of pet owners, showing decreased heart rate, lower blood pressure, reduced feelings of loneliness, improved self-esteem, and mood (Campo & Uchino, 2013). In one study on the human-animal bond, pets were examined as self-objects (Brown, 2007). Self-objects can be people, objects, or animals that help build a sense of self. Regarding self-objects, the behaviors towards them can be mirroring, twinship, or idealization. Mirroring is defined as acceptance of the goodness of the self; twinship illustrates the likeness of the other's self; and

idealization provides the individual with something to look up to. Brown (2007) found that self-object theory could be found in the human-animal relationship by conducting a qualitative study with interviews using questions to show self-object needs. However, only one of the 25 participants was male, the other 24 were female, once again illustrating that pet study participants are primarily female. The results were that mirroring was the primary experience participants had with their companion animals. The human-animal bond includes the mirroring effect because animals are so expressive that pet owners interpret the animal's behavior as confirmation that the owner is loved (Brown, 2007).

In another study that examined the human-animal bond for elderly women, Chur-Hansen et al. (2009) found that participants who experienced the most health benefits from animal ownership were women who were moderately attached to their pets Attachment in this sense is defined as a desire to maintain physically close proximity to a companion animal. Extreme, anxious, or no attachment to pets was not conducive to health benefits (Chur-Hansen et al., 2009). By analyzing intensive interviews with elderly women, Chur-Hansen et al. (2009) found that the human-animal bond centers around attachment, where the pet is seen as a family member, surrogate child, a source of companionship, and a secure base. The human-animal bond is stronger in later life where companionship is the benefit most frequently talked about by elderly women (Chur-Hansen et al., 2009).

Both humans and animals experience benefit due to the human-animal bond and this is particularly true with the dog-human dyad. Dogs exhibit attachment behaviors that

include proximity seeking and a secure base (Payne et al., 2015). Humans can be a safe haven for companion animals potentially moderating the dog's physiological and behavioral stress responses to an outside event (Payne et al., 2015).

Kuhl (2011) performed in-depth interviews with eight dog mushers from Minnesota and Ontario. The mushers told stories about their relationship with their dogs. Unanimously, the mushers agreed that the bond they established with their animal was based on getting to know their dog, respecting their dog, maintaining two-way communication, and building a relationship based on trust and open-mindedness to learn (Kuhl, 2011).

Animal owners who are bonded with their pets often risk their own lives during natural disasters to save their pets. In order to stop taking risks in saving the life of a pet, animal attachment could be re-constructed as a protective factor for human and animal survival (Thompson, 2013). To accomplish this change, the author recommended that pre-disaster planning for pet owners is imperative in order to plan for early evacuation.

Pet owners report that their animal is of great value during times of loss, crisis, transitions, and adversity (Walsh, 2009b). The human-animal bond was publicly demonstrated during and after Hurricane Katrina. Survivors of the hurricane who lost pets experienced higher levels of separation anxiety and more injuries compared to individuals who did not have pets (Zottarelli, 2010). In a study by Wrobel and Dye (2003) the subject of pet loss was examined. Wrobel and Dye (2003) showed that 85% of the studied pet owners reported symptoms of grief after the death of a pet, and one-third of these same individuals experienced chronic grief lasting more than six months.

For disabled adults, the presence of an animal can promote empathy, trust, and safety, however, for older adults who are bonded with their pet, chronic illness or disability can make it difficult to interact with their animal (Anderson et al., 2015). Older adults often think about end of life issues and worry about what will happen to their pet if the owner dies. When older adults create legally sanctioned trusts that provide information about how the animal is cared for, it relieves the uncertainty and stress owners feel about their animal's future (Anderson et al., 2015). Through in-depth interviews, the present study examined how older male physically impaired pet owners plan for the pets' care should they predecease the animal.

Pet Attachment

Attachment theory (Bowlby, 1982) is based on the fact that individuals form strong social relationships that foster a sense of support and security. With humans, attachment figures can provide a sense of security when there is a threat of danger. When this happens, humans see their attachment figures as a safe haven and a secure base where support is offered during times of difficulty. Throughout evolution, attachment behavior is demonstrated by seeking proximity to an attachment figure whose function is protection from harm (Bretherton, 1992).

Amiot and Bastian (2015) identified levels of attachment styles and behaviors as being, secure, anxious, or avoidant toward attachment figures. Each individual attachment style informs the nature of the relationships individuals have with attachment figures. In a study examining non-human sources of attachment, Keefer et al. (2014) found that individuals can attain a sense of psychological security from their pets. In

comparative biology, researchers have shown that the same physiological, neurological, and behavioral mechanisms that are at play between human-human interactions are seen in humans' relationships with companion animals (Julius et al., 2013). In other words, humans are evolutionarily predisposed to form attachments with humans and animals.

In a study examining individual differences in attachment style (secure, anxious, or avoidant) Field et al. (2009) sampled 71 participants who had lost a cat or dog in the previous year. Each participant completed questions that measured individual differences in attachment style (secure, anxious, or avoidant). Field, et al. (2009) found that the participants who were securely attached or anxiously attached to their pet reported more grief due to the loss of their pet.

The literature on pet attachment and its relationship to overall health and well being is inconclusive. Pet attachment can both improve well-being for the pet owner as well as show deleterious psychological effects (Antonacopoulos & Pychyl, 2010; Peacock et al., 2008). The relationship between attachment to pets and positive physical and mental outcomes and psychological distress (Peacock et al., 2012). Using the concepts of John Bowlby's attachment theory (1982), Peacock et al. (2012) applied the tenets of proximity seeking, safe haven, and secure base to the relationships participants had with their animal companions. Beck & Madresh (2008) showed that when participants were asked what they would do if a physician told them they had to get rid of their animal for health reasons, 25% of participants reported that under no circumstances would they give up their pet (Peacock et al., 2008). These results are supported by more

research (Chur-Hansen, 2010) that showed when an individual fears being separated from their animal they can be noncompliant with medical advice.

Some research illustrates that human-animal relationships are linked with higher reports of psychological distress (Peacock et al., 2012). Health professionals need to know how to preserve human-animal attachments to prevent negative psychological health problems (Peacock et al., 2012). A limitation to their study was that 72% of participants were female, once again illustrating that both quantitative and qualitative studies on animal attachment need to focus on the experiences of male pet owners.

Of interest to researchers has been how relationships with humans differ from those with animals. Pet ownership appears to be different from human social support, whereby, animals offer companionship as an intrinsic reward in relaxation, recreation, and quality of life (Smolkovic et al., 2012). Further, it appears that female pet owners tend to be more attached to their pets. This result was demonstrated in a study examining pet attachment in which participants were dog and/or cat owners (330 female and 35 male) who all completed questionnaires about close relationships, social support, the owner-pet relationship, and loneliness (Smolkovic et al., 2012). There was a relationship between loneliness and pet ownership; and companion animals substantially lessened psychological distress and reduced loneliness. There was no statistically significant correlation between attachment to pets and social support. Smolkovic et al. (2012) concluded the study by stating that pet attachment differed for pet owners, showing that women compared to men were more attached to their pets.

Gender, Personality, and Pet Attachment. Gender and personality factors pay a significant role in human-animal attachment (Amiot & Bastian, 2015). There are few studies that look at gender difference regarding attachment to companion animals. Most of the studies that used surveys to assess attachment to animals showed that the differences between genders is small, although women outnumber men as activists in the animal rights movement, and men are more supportive of animal research and the preservation of the species (Herzog, 2007).

Gender has been shown to predict attachment, empathy, and attitudes toward animals (Herzog, 2007). Women report more positive feelings about animals and are more concerned about the rights of animals (Herzog, 2007). A significant gender difference between pet owners is that women do not hunt as much as men, or act as aggressively toward animals, and many more women than men compulsively hoard pets, which can have negative consequences for the animals (Herzog, 2007). Limitations on studies about gender and pet ownership are that most animal study participants are female (Antonacopoulos & Pychyl, 2010).

Many pet owners report that they would choose to turn to a pet dog as a comfort over seeking comfort from a family member because they perceived their dog as providing unconditional love and support (Kurdek, 2009). McConnell, Brown, Shoda, Stayton & Martin (2011) showed similar results and found that pet owners who are securely attached to their pets showed that the social support provided by pets was as important as support provided by humans. Zilcha-Mano et al. (2012) found that

participants who felt close to their pets were more confident about attaining personal goals when their pet was either brought to mind or physically present.

Not all studies show positive mental and physical health results regarding an individual's attachment to a pet. Antonacopoulos and Pychyl (2010) examined how pet ownership and attachment may have a role in mediating the psychological health of individuals who live alone. Antonacopoulos and Pychyl (2010) hypothesized that for adults who live alone; pet ownership would ameliorate depression and loneliness levels. Older participants who lived alone experienced the most loneliness and the pet owners did not report being less lonely because they had a pet. Participants with high levels of human support reported being significantly less lonely that those who did not have strong social support (Antonacopoulos & Pychyl, 2010).

Pet Attachment and Older Adults

For older adults, proximity to an attachment figure ensures the safe haven, and secure base effects of attachment leading to adaptive emotional regulation (Van Assche et al., 2013). Securely attached older adults perceive themselves as worthy of attention and this phenomenon can remain stable, increase, or decrease during their lifetime (Van Assche et al., 2013). Insecurely attached older adults experience more anxiety and less security in their relationships and this can lead to negative health consequences (Van Assche et al., 2013).

In a study comparing attachment styles between younger and older adults, older adults showed lower levels of ambivalent or preoccupied attachment compared to their younger counterparts (Segal, Needham, & Coolidge, 2009). This result was due to the

fact that older adults have more life experience recovering from losses (Segal et al., 2009). Antonucci, Akiyama, and Takahasi (2004) researched attachment across the life span. They conducted 1703 interviews with individuals aged 8-94 years. Antonucci et al. found that children and teenagers report more attachments than older participants in the 70-94 group. The same study found that older women had more close attachments than older men.

When older adults were asked to rank their attachment figures they include family members, doctors, caregivers, clergy, and pets (Cicirelli, 2010). Regarding attachment to pets, Field et al. (2009) showed that the strength of the older adults' attachment to their pet is an indicator of physical and mental health. Over-dependent relationships could occur between pet owners and their animals that create mental health problems when the individual and pet are separated (Field et al., 2009). The strength and style of the attachment bond has been shown to predict the level of grief an owner experiences after their pet dies (Field et al., 2009). Krause-Parello and Gulick (2013) examined the strength of pet attachment for older adults. In a sample of 191 older adults (159 female, 32 male) the study showed that high attachment to a pet was significantly correlated with decreased loneliness, a source of social support, and companionship. For older adults, attachment relationships change because of more exposure to loss of loved ones, friends, and pets (Van Assche et al., 2013).

Much of the literature on human-animal attachment for older adults shows that companionship, overall well-being and unconditional love are the primary benefits experienced by pet owners (Herzog, 2011). Not all studies, however, show positive

effects of pet ownership. In a study that examined how attachment to a pet might moderate social supports and psychological distress, Peacock et al. (2012) found that high pet attachment was significantly associated with depression and anxiety. This finding has been reported in previous research that showed pet attachment to be an indicator of increased reports of psychological symptoms for older adults (Antonacopoulos & Pychyl, 2010).

In a qualitative study examining the importance of attachment for elderly women, the Chur-Hansen et al. (2009) interviewed 11 females over the age of 65 about their attachment to their pets. The participants expressed thoughts and feelings that illustrated several themes. The themes were, level of attachment, seeing the pet as a family member, a preference of animals over people, companionship, not wanting to leave the pet, and bereavement (Chur-Hansen et al., 2009). Although there were many physical and emotional benefits of pet ownership for older women, extreme attachment to a pet isolated these individuals from other human social supports (Chur-Hansen et al., 2009). In the present study, interview questions included the topic of attachment giving the older males the opportunity to discuss the nature of their attachment to their pets. The present study differs from what has previously been reviewed because it did not use attachment theory as a construct. Instead, the study's orientation used a biopsychosocial approach that looked at feelings of attachment toward an animal in a physical, emotional, and social context.

Summary

This chapter provided an overview of the literature on the human-animal relationship and how it affects the individuals' physical, psychological, and social health. The major themes examined were the human-animal bond, aging and health, older adults and disability, and self-perceived health. A description and explanation of how biopsychosocial theory applies to the present study was also included.

The literature review began with a description of the latest statistics on older adults in America. Older individuals are living longer than any time in history due to medical and environmental improvements and advances. This section was followed by literature written on studies of biological aging, mental health, and socialization of the older adult. Pet studies on older adults and companion animals were also cited that focused on how the phenomenon of animal ownership influences different aspects of overall health. Although much of the literature touts an improvement in physical, emotional, and social health for the older pet owner, the literature is not conclusive citing how caring for animals can also be burdensome and a fall hazard. Many studies show how pet ownership ameliorates loneliness for older adults; however, some studies demonstrated that pets do not provide a buffer against loneliness.

Because the participants in the present study were all older males who suffered from some kind of physical impairment, the subjects of disability and falls were examined. The literature review concludes with an overview of the literature regarding older adults and the human-animal bond throughout history and through today. The present study is different from the studies examined in the exhaustive literature review

because it focused on the underrepresented group of older physically impaired males and the relationships they have with their companion animals.

The literature review included both quantitative and qualitative studies where a smaller portion of the participants were male compared to female, however, there have been no qualitative studies that focus solely on the older, physically impaired males' experience with the phenomenon of pet ownership. The following chapter will discuss in detail the methodology, participants, data collection, data analysis, and ethical concerns of the present study.

Chapter 3: Research Method

Introduction

This chapter outlines the qualitative research design for the present study. The previous chapters described the study; Chapter 3 focuses on the phenomenological method, my role as a researcher, participant selection, instrumentation, procedures, data analysis, trustworthiness, and important ethical concerns. A discussion of the appropriateness of this research design will be found in this chapter along with details about how to ethically protect vulnerable participants.

This chapter also outlines the criteria for inclusion in the present study and an explanation about saturation in data analysis. Recruitment was done using both purposeful and snowball sampling and a detailed plan for participant selection is provided in this chapter. A description of a pilot study is also included as it was necessary to test all interview questions for their appropriateness. Qualitative research must be trustworthy and the establishment of credibility (validity) must be shown; in this chapter, the reader will find an explanation of how the present study provides transferability, dependability, and confirmability in order to establish trustworthiness. The chapter concludes with a section on important ethical procedures.

Research Design

Unlike quantitative research where researchers focus on inferences or causal relationships between variables, qualitative research provides the researcher with rich, descriptive experiences of the participants through intensive interviews using open-ended questions.

Creswell (2013) defined qualitative research as an emerging process to study the meaning participants ascribe to a human problem or phenomenon. Data is collected in a natural setting that is sensitive to the individuals and phenomenon being studied where eventually the researcher applies deductive and inductive reasoning skills in order to develop the emerging themes (Creswell, 2013). Creswell (2009) cited several qualitative strategies that are used in qualitative research: Ethnography, grounded theory, case studies, phenomenological research, and narrative research. Ethnography and grounded theory involve studying cultural groups and the development of a theory respectively. Case studies involve the exploration of a program or process and narrative research focuses on the telling of stories in a narrative chronology. The selection of phenomenology as a research strategy for the present study was made because I was interested in identifying the essence of the participants' experience with the phenomenon.

Beginning with the process of identifying the most appropriate qualitative research strategy, the research questions had to align with the chosen qualitative method. The present study's research questions were as follows:

RQ1 (Qualitative): How do older physically impaired males describe their relationships with their pets?

RQ2 (Qualitative): What are the lived experiences of older physically impaired men regarding how their animal companions influence physical, psychological, and social health?

Since the present study examined the lived experiences of the phenomenon of pet ownership for older physically impaired males, the qualitative method of phenomenology

was most appropriate. Coming from the academic studies of philosophy, the German philosopher Edmund Husserl (1859-1938) developed the concept of phenomenology. Husserl proposed that individuals describe and experience their environments through their senses, and the only way others can understand and interpret their meanings is if the researcher experiences the essence of the phenomenon with them (Patton, 2015).

Moustakas and Giorgi have developed the tenets of phenomenological research as it is used today as a descriptive and interpretative qualitative method. Moustakas (1994) stated that the phenomenological method involves reading and re-reading the data to uncover the intentions and meanings of lived experiences. Giorgi (1997) stated that there are three essential phases of phenomenological inquiry: Phenomenological reduction, description, and the discovery of the essences. Phenomenological reduction refers to the withholding of the researchers' past knowledge about the phenomenon. Rich description is experienced through intensive interviews, and the discovery of the essences occurs in data collection(Giorgi, 1997).

In phenomenological research, it is important to see data collection and data analysis as part of a unified process (Englander, 2012). Qualitative researchers often collect data in the participants' natural setting where the phenomenon is being experienced (Creswell, 2009). Unlike quantitative research, where participants are often brought into an experimental lab situation, where different variables are studied, qualitative research provides the researcher with rich in-depth lived experiences of the participants in their own environment. Rather than relying on a single data source,

qualitative researchers often use interviews, photographs, observations, and documents in a study examining the lived experiences of participants (Creswell, 2009).

Qualitative researchers use an inductive process, starting with raw data (answers to interview questions) and proceeding to more abstract information with the development of themes that are coded and analyzed (Creswell, 2009). It is important to note that the participant's expressions and meanings are the focus of qualitative inquiry (Creswell, 2009). With a phenomenological approach, the researcher seeks to understand how individuals construct meaning in their lives related to the phenomenon. Patton (2015) stated that qualitative researchers must be sensitive to the context of the environment and the individual as it relates to the phenomenon.

With qualitative research, there are usually unanticipated consequences because there are no hypotheses to examine or prove. Phenomenological inquiry does not begin with the researcher's ideas about what the interviews will produce, but instead assumes nothing about the results, focusing only on how the spoken words and their meanings produce emerging results. Openness of inquiry is the position taken by the researcher in asking open-ended questions that may produce unanticipated results (Patton, 2015, p. 11). Finlay and Molano-Fisher (2008) conducted a phenomenological study on a woman who, after being deaf for 50 years, received a cochlear implant, and assumed that when the woman was able to hear, she would be happy and her life would improve; however, the woman had mixed feelings at first because she had to learn how to navigate and adapt to her new hearing life (Finlay & Molano-Fisher, 2008).

The Role of the Researcher

Dwyer and Buckle (2009) discussed the researcher's role as being either an insider or outsider regarding the topic being studied. I am not male, as old, and do not have any physical impairments like the participants did. I can identify with pet owners, but I do not know what it is like for the older physically impaired male. This made me an outsider; therefore, my stance was that of a learner, new to the phenomenon being studied. Giorgi (1989) maintained that the researcher must continue to be aligned with the descriptive phenomenology of the participants' experiences. This requires that the interviewer is living in the moment with the participant.

It is important to maintain a non-hierarchical relationship between researcher and participant (Dickson-Swift, James, Kippen, & Liamputtong, 2007). Finlay (2009) states that researchers must have a "phenomenological attitude" in that they must strive to see the participants and the information they give as being fresh, and new. The researcher must be open to seeing the phenomenon in a different way by adopting a purposeful naiveté about the participant's lived experiences.

Bracketing is a term used in phenomenological research where the researcher brackets (suspends) their own personal feelings and experiences in order to not contaminate the information given by the participants (Finlay, 2009). This is not to say that researchers should be unaware of their own personal feelings, reactions, and experiences. In fact, the job of a thorough phenomenological researcher is to identify what their subjectivities are prior to commencing the interview process in order to know what to bracket out during data collection.

I have been a licensed marriage and family therapist in the state of California for 30 years. I have a great deal of experience in interviewing individuals and families in order to obtain information on the history and present-day issues of the client. Even though I performed in-depth interviews with my participants, I was never in the therapist's role. Instead, my role was that of an active listener to new information without interpreting the answers for the participant.

When dealing with the vulnerable group of older, physically impaired men, it was important for me to make an assessment of the impact the study had on the participants. When conducting sensitive health research, it is important to remember that at the time of the interview, the participant may be dealing with stress or a crisis. If this was the case, I did not counsel the individual, however, I had available referrals for physical, mental, and social health should the participant present with these difficulties.

The researcher's position, or anticipation of predicted results are never the focus of a qualitative study, however, it is the job of the researcher to be consciously aware of his or her own biases or expectations in order to not contaminate the focus of the study which is the personal, lived experience of the participant. As a qualitative researcher, I maintained boundaries, managed my own emotions, and developed some semblance of rapport with participants (Dickson-Swift et al., 2007). In order to remain accountable as a phenomenological researcher, I kept a personal journal to log my own personal thoughts, feelings, and experiences regarding the present study in order to not lead or influence the participants' expressions of the phenomenon.

Participant Selection Logic

The sample population for the present study was 10 older (65+) male pet owners who suffered with some physical impairment (i.e. arthritis in the hip/knee, other mobility problems). Other criteria for inclusion in the study were, 1) must have the ability to speak and understand English, 2) must be mentally sharp, and 3) must live alone in the community or in an assisted living environment. The rationale for sampling 10 participants has been generally proven to be the correct number to examine in a qualitative, phenomenological study, since it usually takes 8-12 intensive interviews to reach a point of saturation (Creswell, 2013; Maxwell, 2013; Moustakas, 1994; Patton, 2015). Simply put, saturation is the term used to describe how a study has reached completion regarding the information gathered from the participants. Creswell (2013) stated that the point of qualitative interviews is to gather enough information to develop themes and deeper meanings.

In the present study, I interviewed participants to the point of saturation. Although I planned to recruit at least 10 individuals, it was possible that I reached saturation after fewer interviews. It was also possible that after interviewing 10 participants, saturation would not be reached, and I would have to recruit more individuals for the study. Thankfully, 10 participants turned out to be the correct number of participants to interview to saturation.

The participants were recruited using purposeful sampling of a homogeneous group, including snowball sampling. Initially, flyers describing the study and inviting older males to participate were distributed in churches, synagogues, health-care facilities,

possibly assisted living environments, barbershops, and veterinarian's offices (Appendix A). I also placed a paid advertisement on Facebook (Appendix B). Snow-ball sampling was used when after an interview was complete, the participant himself was asked if he could recommend someone like him who may want to participate in the study. Tracy (2013) stated that snowball sampling is an effective method for recruiting hard to reach populations. A downside to snowball sampling, however, is that there can be little diversity among participants since individuals generally recommend people like themselves (Tracy, 2013). In the literature, it is recommended to recruit a handful of participants who show maximum differences and then ask these participants to recommend others for the study (Tracy, 2013). In the present study, every effort was made to initially select individuals who met all the criteria and represented demographic differences.

Participants were asked to contact me via telephone. Once I received their call, I called them back to screen for access, appropriateness for participation, and safety. I also tested for cognitive health by asking demographic questions (See Appendix C). Once participants passed the screening process, I described in detail the nature of the study and its benefits and risks. Participants then instructed me as to where they would like to be interviewed. Interviews could either take place at the residence of the participant if they were comfortable having me come into their home, potentially in a common area of an assisted living environment, in a public place like a park or library, on the telephone or via Skype videoconferencing. Creswell (2009) suggests developing an interview protocol to be followed with each individual interview.

The protocol for the present study began with identifying the date, place and time of the interview. Then questions about demographics were asked. These questions provided a general description of the participant and his history and were used as "ice-breakers" for the upcoming interview questions. Then the commencement of the formal interview including 10 questions with prompts began (Appendix C).

Instrumentation

In the present study, the instruments of audiotapes, field notes, direct observations, and intensive interviews were used to collect data from the participants. In order for the data collection instruments to answer the study's research questions, all audiotapes, field notes, direct observations and interviews were focused on the phenomenon being studied. Patton (2015) stated that when identifying how data will be collected in qualitative studies, it is imperative for the researcher to be reflexive in his or her stance as a data collector. In other words, the researcher must be aware of his or her own biases and role as inquirer, therefore during data collection, I kept a researchers' journal to record my own personal experiences, thoughts and feelings.

All participant interviews were audiotaped and transcribed by me. This process was essential in order to collect data that later was coded and analyzed for deeper meanings and themes. During the time spent with each participant, I also keep field notes in order to record direct observations including the emotions and non-verbal behaviors of the participant. Field notes are not interpretative but are descriptive (Patton, 2015). Therefore, the process of taking field notes was to write down what I observed and not an analysis of the interview experience.

There are two parts to the intensive interviews that were conducted with participants. Initially, the older men were asked demographic questions that were followed by a series of 10 interview questions about the phenomenon being studied (See Appendix A). Each of the 10 interview questions was written to answer the research questions. This researcher-developed instrument was reviewed by the chair and committee of this dissertation along with a panel of experts to confirm that the questions were appropriate and specific to the study.

Pilot Study

Older adults with physical limitations are a vulnerable population and all research procedures must be thoroughly planned out and practiced. Therefore, prior to commencing data collection for the present study, I performed a pilot study in order to test the interview questions and evaluate my own ability as an interviewer. Patton (2015) suggested that with phenomenological interviews it is important to ask open-ended questions, develop some rapport, listen attentively and empathically, maintain neutrality, and be prepared for the unexpected. The pilot study gave me invaluable experience to be able to document the interview process in order to refine it and make it better for the present study.

I followed all procedures for recruitment for the pilot study. In other words, I recruited an older male pet owner who suffered some physical disability and met all of the criteria for the main study mentioned earlier in this chapter. The participant for the pilot study had the option of being interviewed in a public place such as a church, library

room, park, or restaurant. If they were unable to leave their place of residence, they also had the option of being interviewed over the telephone or via Skype conferencing. Prior to commencing the interview, the participant read and signed a consent form to protect their privacy.

Procedures

To begin, flyers describing the study and criteria for inclusion for prospective participants were placed in churches, synagogues, select assisted living environments, physicians' offices, barber shops, and veterinarian's offices (See Appendix B). I also placed a paid advertisement on Facebook to help with recruitment. Flyers and social media ads included my phone number and email address. I was fortunate that the PAWS organization in Los Angeles allowed me to post flyers on their billboards. PAWS specifically helps lower income seniors keep their pets by providing pet food and veterinary care.

Potential participants were invited to call or email me about their interest in being a part of the study. Once initial contact was made, I arranged an interview to be conducted in the manner the participant was most comfortable. As mentioned previously in this chapter, options were: a public place such as a park, library room, or café, or a telephone or Skype interview.

Older males with physical limitations are a vulnerable group and their safety and security needs to be protected. Consent forms were mailed to the participants after initial contact had been made and I collected them prior to the commencement of each interview. For telephone or Skype interviews, I mailed the consent form and included a

self-addressed stamped envelope so that each participant could return it to me prior to the interview. Because I am a licensed psychotherapist, I am mandated to report elder abuse or an unsafe living environment. If I suspect elder abuse or neglect, I must contact the Adult Protection Services at the California Department of Social Services (California Department of Social Services, 2017). This information was included in the consent form so that each participant knew ahead of time that I must report if the situation warranted it. If for example a participant resided in unsafe living conditions or was a victim of elder abuse, I would immediately contact my chair, committee member, and IRB for their advice and then make a formal report to the department of social services. I also had prepared list of affordable counseling services available to the participants in their area. Each participant received the list prior to the interview either in person or via mail.

All interviews were audiotaped and transcribed in order to prepare for data analysis. All digital recorded interviews were transcribed by me. All field notes (including descriptions of the environments and the non-verbal behaviors of the participants) were recorded in my notebook as the interview was taking place to be included in the analysis of data. Each transcribed interview had its own file and was maintained in a locked file cabinet in my home to insure the confidentiality of the participants.

Data Analysis

Once the interviews were transcribed, the process of data analysis began. As Tracy (2013) suggests, I used chronological organization to begin the data analysis

process. Each interview and series of field notes was analyzed in sequence from the first participant to the last to illustrate the trajectory of my analysis over time. Preliminary analysis of qualitative data begins with coding, which is a way to label and systematize the data (Tracy, 2013). Although there are several software programs created to help qualitative researchers code and analyze their data, I did all coding manually. Manual coding begins by looking at all hard copies of the transcriptions (with wide margins) and using colored pencils to underline and describe the sections of the interview that stand out as being salient descriptors of the data. Codes are short words or phrases that capture the essence of a phenomenon (Tracy, 2013).

Initially, I went through a process of initial coding where I simply notated what I saw in the data. For example, if a participant laughed, the code may be, "Humor". Following this stage, I went deeper into the data where I saw that in many cases "Humor" can be self-deprecating, or sarcastic. Where initial coding is a descriptive process, second-level coding is an analytical process that precedes the development of themes (Tracy, 2013). Miles, Huberman, and Saldana (2014) suggest that concurrent with descriptive coding, to also make *in vivo* codes*,* which are words or phrases from the participants in quotation marks. For example, a participant might describe his companion animal as being a "best friend". These *in vivo* codes are essential in helping me both describe and analyze the data. Once I completed first-level and *in vivo* coding, I began to use an interpretive strategy coupled with my knowledge of the literature and theory to develop second-level coding.

Tracy (2013) stated that second-level coding involves analysis and the identification of patterns and themes. I also not only coded remarks and non-verbal behaviors as being the most interesting and common ones, but I also was sure to code the contrastive data as well. Qualitative researchers must also use a process of negative case analysis. Simply put, I needed to make sure to observe the deviant data so as not to only focus on data that aligns with the literature, theory, and research questions. Negative case analysis is essential to support the credibility of emerging themes (Tracy, 2013).

Following the advice of Bernard and Ryan (2010), I developed a codebook that includes columns that illustrate both short and detailed description of the code, the inclusion and exclusion criteria for the code, and obvious and surprising exemplars of the code. This codebook was useful when comparing it to the literature, biopsychosocial theory, and the research questions. In this codebook that listed both first and second-level coding, I also kept analytic memos that helped with the interpretation of the codes and themes.

Trustworthiness

In order to proceed with data analysis, it is imperative to plan for issues of trustworthiness. In order to achieve trustworthiness, several steps need to be taken during the data analysis phase to illustrate how rigorously and objectively the researcher has described and evaluated the data. Stadtlander (2015) stated qualitative researchers need to establish credibility, transferability, dependability, and confirmability when performing data analysis. Each of these steps requires that the researcher take actions to support the validity and transferability of the study.

In quantitative studies, it is essential to show internal and external validity and the qualitative counterparts to this phase of data analysis are called credibility and transferability respectively (Miles et al., 2014). Credibility is about how well the data addressed the intended focus of the study (Elo et al., 2014). In other words, does the study make sense? All descriptions need to be rich and meaningful and the findings must ring true and make sense to the reader. The strategies that I used to establish credibility were prolonged contact with each participant, triangulation, saturation, reflexivity, and expert review. Saturated data is a way to ensure replication (Elo et al., 2014). If saturation is not achieved, this causes problems in the analysis of data and can prevent researchers from drawing conclusions about how data is linked together (Cavanagh, 1997).

Transferability refers to how the study's findings can be transferred to other groups or settings (Elo et al., 2014). In other words, can the study be generalized and transferable to other contexts? How persuasive is the study? The strategies that I used to establish transferability was variation in participant selection and thick description. In the participant selection process, every effort was made to include a cross-section of older male adults with different demographic backgrounds. Thick description refers to the process of continuing to go over the data enough to be able to write a thorough, deep and thick description of the information.

Patton (2015) stated that a barrier to a credible qualitative study is that it is such a judgment dependent process that potential leads to researcher bias. This is why showing data that supports alternative explanations through negative case analysis is so important

to help establish trustworthiness. It is the job of the qualitative researcher to continue to return to the data to identify deviant cases (Patton, 2015). Readers of phenomenological studies will be skeptical about perfect patterns and explanations in the analysis of data making it all the more important to show alternative or negative data (Patton, 2015).

No single method of analysis can adequately describe rival explanations, and this is where the practice of triangulation comes into play. In qualitative research, triangulation refers to the process of using several different approaches to overall data analysis. For example, if I were to only examine the transcribed interview without including the processes of observation and reflexivity, I would only be looking at one aspect of the data analysis. There is also analyst triangulation where the qualitative researcher uses other analysts to review findings (Patton, 2015). I implemented this process by having my chair and a peer reviewer go over the analysis of my data.

Dependability refers to how data over time remains stable under different conditions (Elo et al., 2014). In quantitative studies this process is known as reliability. The essential question here is, would the findings in the study be repeated if a researcher were to use the same or similar participants in a new study? With dependability, the research questions should be clear, and the study must be congruent with them. The strategies I used to establish dependability were audit trails and triangulation. Audit trails are documents kept by the researcher that log all of the processes involved in the study (Patton, 2015). As mentioned earlier in the chapter, a codebook and researcher's notebook that documents observations, reflexive notes, and non-verbal behaviors of the participants was kept to be used in the data analysis process. In these documents, I kept

reflexive notes regarding my own personal biases, assumptions and experiences during the process of the study.

Confirmability refers to how the study procedures are described in detail, where readers get explicit information about data analysis and all that happened behind the analysis process including researcher's reflections (Miles et al., 2014). In order to establish confirmability my readers can see the sequence of how data was collected and analyzed and how I made note of my own thoughts, emotions, and actions, as they were pertinent to the study. Ultimately, confirmability is established if the study's steps can be available for repeating that would lead to the analysis by others (Miles et al., 2014).

Ethical Procedures

When working with a vulnerable group of individuals it is imperative to prepare for ethical issues that may arise. Participants must be protected, and the researcher must not do anything to further marginalize them (Creswell, 2009). One of the reasons for the pilot study was to make sure that all interview questions were appropriate and inherently non-threatening in order to detect any disempowerment to the participants. Prior to collecting data in the present study, all participants were asked to read and sign an informed consent form (Appendix D) that included important information about the study, my role, my university, an indication of how the participants were chosen, the purpose and benefits of the research, specifics about the participants' level of involvement, the identification of any risks to the participant, guaranteed confidentiality, the assurance that withdrawal from the study can happen at any time, and a list of persons to contact should questions arise (Creswell, 2009).

The American Psychological Association (2010) has specific codes of conduct and ethical principles for both clinical and research psychologists. The general principles regarding ethical issues are as follows: beneficence, nonmaleficence, fidelity, responsibility, integrity, justice, and respect for people's rights and dignity (APA, 2010). The present study included an extensive interview with older individuals who were protected against any ethical infraction. APA's general principles served as an ethical foundation for the present study.

When working with vulnerable participants, it was important to be prepared for any unexpected problems that may be experienced due to the interview. For example, a participant may lament about his poor social life or other physical or psychological challenges. In order to provide support for each participant, prior to the commencement of the interview all of them were given a list of local and national community health agencies (Appendix E). Therefore, should problems arise, I could refer them to the list so that they could get the help that they need. When participants were given informed consent about the study prior to being interviewed, I also discussed the limits of confidentiality because I am mandated to report any elder abuse or elder neglect I see or hear about due to the nature of my profession. This process follows the edicts of beneficence and nonmaleficence.

One of my jobs as a student researcher was to create trust with each participant. I clarified my role as the interviewer and provided them with information about the study and what their participation meant. I also made sure to not make any decisions when preparing for the interviews without consulting with my chair and committee member.

This upheld the principles of fidelity and responsibility. Student researchers must also show integrity, justice, and the respect for people's rights and dignity in all interactions with participants and it was always my plan to uphold these ethical principles.

To protect data, each participant was given a pseudonym to ensure that confidentiality was upheld. All interviews were transcribed and printed out to begin coding. The electronic data (computer files of interviews) were kept on a separate password protected flash drive and along with the printed material, are stored in a locked cabinet in my office. The flash drive and documents will remain in my possession for a period of 7 years and then I will destroy them. I used the help of a peer coder. Another student in my dissertation classroom volunteered to look over my coding and give advice regarding what I may have missed. Prior to viewing the data, the peer coder signed a confidentiality form to protect all participants. It was possible that some interviews could take place in an assisted living environment. Another ethical procedure should this arise was getting the permission from individuals in authority to provide access to the facility and its residents. In research, these individuals are known as "gatekeepers" and they too must sign confidentiality agreements and be approved by Walden's IRB prior to the collection of data for the present study.

Summary

The research design for the present study uses the qualitative method of phenomenology where the goal is to gain a deep understanding of the participants' lived experiences with their companion animal. Using the instrumentation of the intensive interview, participants had the opportunity to identify how their relationship with their

animal affected their physical, psychological, and social health. By engaging in bracketing I set my own opinions, biases, and assumptions aside in order to document the expressions of the participants. The procedures for recruitment were outlined to gain as much access to the older, physically impaired males as possible with the goal of reaching saturation with 12 participants. Data analysis was an exhaustive process where coding the data better represented the feelings and opinions of the participants. Evidence of trustworthiness and the practice of ethical procedures helped ensure that the study was valid and that all participants were protected from harm.

Chapter 4: Results

Introduction

The purpose of this phenomenological study was to understand and analyze the lived experiences of 10 older (65+) male pet owners who live alone and suffer some physical limitation or disability. Using the orientation of biopsychosocial theory, the study was guided by two research questions:

RQ1 (Qualitative): What are the relationships that older physically impaired males have with their pets?

RQ2 (Qualitative): What are the lived experiences of older physically impaired men regarding how their animal companions influence physical, psychological, and social health?

In Chapter 4, important information regarding the results of the study are described. The pilot study is discussed in Chapter 4. The setting, participant demographics, data collection and analysis, discrepant cases, evidence of trustworthiness, and a description of the interview results are all found in Chapter 4.

Pilot Study

The pilot study was conducted to better evaluate the research and interview questions for their value and appropriateness. The participant for the pilot study was recruited by seeing my advertisement on Facebook. Upon initial telephone contact, the participant was screened and vetted for inclusion in the study and met all criteria for the study. I obtained his email address and forwarded a copy of the consent form for him to read and sign. He was not able to provide an electronic signature because he was not

familiar with the technology; therefore, I asked him to mail me the consent form. When I received the consent form two days after initial contact, I called back to set up a time where we agreed on a date and time to be interviewed. The interview was conducted on the telephone and the participant answered all questions. Upon completing the interview, I sent a thank you note with a $10 gift certificate to Petco for his participation in the study.

What I discovered with this pilot interview was that I needed to draft several more prompts to questions because the 71-year-old handicapped participant was laconic and brief with his answers. Due to the nature of the phenomenological study where the researcher is searching for rich description and deeper meaning, I determined that what needed to be updated in the interview protocol was prompts to several questions; however, the interview questions themselves remained the same. More details on the prompts for interview questions are in the data collection section.

Setting

In order to recruit participants who met the criteria for inclusion, fliers were placed with permission in church parish halls, veterinarian's offices, barbershops, and the PAWS organization bulletin board in Los Angeles, California. The PAWS organization in Los Angeles is a program that specifically helps handicapped low-income seniors to keep their pets. I also placed an advertisement on Facebook to recruit participants. For a fee, Facebook sent out the advertisement targeting the older male demographic with information from the flier about how to participate in the study.

Ten participants were interviewed for the present study. Two participants contacted me due to the Facebook advertisement, three participants from church fliers, four participants came from PAWS of Los Angeles, and the final participant was recommended to me by a participant who was previously interviewed through snowball sampling. All 10 participants called me on the cell phone number that was listed on the fliers or the Facebook advertisement. Upon initial contact, I screened each participant for inclusion in the study. Each study participant communicated to me that they were over the age of 65, lived alone, suffered some physical handicap or impairment, and owned a pet. I received a total of 15 calls; however, four individuals did not meet the criteria because they did not live alone. All of the participants lived in Los Angeles, California with the exception of the pilot study participant who lived in the state of Virginia.

After initial contact I asked each participant how he would like to receive the consent form. Five participants requested to be sent the consent form via email and five participants preferred to receive the consent form in the mail. I let each particiapant know that I needed to receive the signed consent form before I could schedule the interview. I received two emailed consent forms that were signed, copied, and returned to me via my Walden University email address. The other eight participants sent back the signed consent form via mail to my office in Beverly Hills, California.

Each interview was digitally recorded and transcribed by me. Of the 10 study participants, eight were interviewed on the telephone and two were interviewed in person at a local park and in a reading room at a local library respectively. Each participant was asked all 10-interview questions and when more information was needed, I added a

prompt to the question to help the participant elaborate on his answer. Upon completion of the interviews, all participants were sent a thank-you note and a $10 gift certificate from Petco for participating in the study.

Demographics

Table 1 illustrates the participants' demographic information. All 10 participants met the criteria for the study in that they were male, over the age of 65, suffered with some physical limitation, lived alone, and owned a pet. Participants were given a code name, (e.g. Dog 2) for the study to protect their confidentiality. The average age of the participants was 73.9 (range 69-86). The Demographics table uses abbreviations for physical limitations as follows: A = arthritis, BP = balance problems, CP = chronic pain, D = diabetes, HD = heart disease, MP = mobility problems, PN = peripheral neuropathy, SS = spinal stenosis, and W = wheelchair bound.

Table 1

Demographic Characteristics of Study Participants (N = 10)

Participant	Age	Race	Education Level	Physical Limitations	Living Alone	Pet Type
Dog 2	76	White	BA	A, D, MP	Yes	1 dog
Dog 3	71	White	MA	MP, SS	Yes	1 dog
Dog 4	86	White	BA	BP, MP	Yes	1 dog
Dog 5	69	White/Asian	PhD	A, MP	Yes	1 dog
Dog 6	72	Black	HS	A, MP, SS	Yes	2 dogs, 1 cat
Cat 1	82	White	HS	CP, MP, PN	Yes	2 cats
Cat 2	72	White	BA	HD, MP	Yes	1 cat
Cat 3	72	Black	HS	SS, MP, W	Yes	1 cat
Cat 4	69	White	HS	A, MP, W	Yes	1 cat
Cat 5	70	White	BA	A, CP, MP	Yes	1 cat

Demographic	N	%
Race		
White	7	70
Black	2	20
Mixed	1	10
Educ. Level		
HS	4	40
BA	4	40
MA	1	10
PhD	1	10
Living Alone		
Yes	10	100
No	0	0
Pet Type		
Dog	4	40
Cat	5	50
Dog & Cat	1	10
	M (SD)	Range
Age	73.9 (5.76)	69-86

Data Collection

Due to the nature of the phenomenological design of the study, from the very beginning of data collection I was focused on documenting the lived experiences of the relationships that older, physically impaired males have with their companion animals. Patton (2015) states that to gather information about the phenomenon, the researcher must experience the essence of the phenomenon with the participants by asking open-ended questions that lead to the thick description and ultimate analysis of the data.

After consent forms were signed and interview appointments made, I took some time to reflect on my own biopsychosocial state. Before each interview I asked myself three questions: 1) Am I feeling physically healthy and rested enough to interview participants? 2) Am I feeling emotionally stable enough to not influence the interview in any way? And 3) Am I feeling socially connected to others enough to preserve objectivity when conducting the interview? When I was able to answer "yes" to each question, I felt confident to perform the interview. This process was how I bracketed out my own personal thoughts, feelings, and experiences to not contaminate the participants expressions. During each interview, I also kept my personal study journal open and ready should I discover that my own feelings and biases begin to get in the way of the interview. This was a very effective practice and particularly important with one participant who was ultimately dropped from the study.

Upon initial contact the participant in question answered all demographic questions and met the criteria for the study. He did not own a computer, so I asked for a mailing address to send the consent for to him to sign and send back to me. When I

received the signed consent form, I telephoned the participant for the interview. He established that he was in a physical space where he could comfortably talk to me, by stating that he was sitting in a senior center in Hollywood, California where he had just had lunch. Both he and his dog were together at the time of the interview. When I commenced the interview, I noticed that the participant seemed emotionally disturbed and labile. I began to take personal notes about how the participant seemed and how he was affecting me. It was very difficult for him to focus on the questions and at times he seemed angry, aggressive, and he also began crying and telling me that his life was a disaster. He also admitted to not living alone, rather he resided with roommates that he didn't get along with. I stopped the interview and determined that this individual was not appropriate for inclusion in the study. I then spent some time going over the referral list for mental health services and told the participant that he would still receive the $10 gift certificate to Petco. The phone call ended pleasantly, and I informed my chair about the experience.

For the present study, because I did not fall into the study participants' demographics, I was an outsider to the subject of the interview and therefore my stance was as an open observer and collector of new stories. Therefore, I approached each interview with an attitude of openness and focus on the participant. For the two participants who elected to be interviewed in person, I also kept a notepad in front of me to write down some of the non-verbal communications with the participants. For the telephone interviews, I was unable to document non-verbal communication but also kept

my field notepad open in case some salient thoughts or emotions of the participant needed to be documented.

The data collection techniques written about in Chapter 3 were followed thoroughly, making the interview and transcription experience positive and productive. At the beginning of each interview, demographic questions were asked again. All 10 participants answered the demographic questions and were comfortable telling me what their physical limitations were. After the demographic questions were asked, I informed all participants that I was going to commence the interview that included 10 questions about the relationship they have with their pets. I let each participant know that they could take as much time as they needed to answer each question. As mentioned before, most interview questions required a prompt question from me to encourage each older gentleman to elaborate. All 10 participants answered the 10 interview questions including prompts. The average length of time needed for each interview was approximately 35 minutes with the shortest one being 25 minutes and the longest one being 45 minutes.

All the participants' responses to interview questions were digitally recorded by me in my work office in Beverly Hills, California. All digital files were named (participants were given code names to protect their confidentiality) and saved on the recording device, my password protected laptop computer, and a password protected flash drive. I transcribed all interviews and each transcribed document was saved to a file on my laptop computer, a password protected flash drive, and then sent to my chair, Dr. Lee Stadtlander for review. I did not print out copies of the transcripts, however, my

personal and field notes are written out in long-hand and kept in a locked cabinet in my work office along with the recording device and flash drive.

Data Analysis

When performing phenomenological research, data analysis begins with taking the direct expressions of each participant and developing codes that are descriptive of the answers to the interview questions (Creswell, 2013). I used a non-hermeneutical approach where all data were transcribed first and then analyzed prior to the development of codes and themes. Before beginning this process, I took all 10 completed, transcribed interviews and read them many times. I wanted to become familiar and immersed with the participants' responses in order to prepare myself for coding. I read each interview to the extent that I could tell which participant said what about each question. After extensive reading of the data, I felt confident that I truly knew my participants and what they had to say.

To begin coding, the first thing I did was develop a coding table where the interview question was in the first cell, each participants' answer to the interview question was in the second cell, and the original corresponding code was in the third cell. This spreadsheet was essential to visually see how participants were similar or different from each other. All 10 participants answered all 10 of the interview questions and each expression was written out verbatim in order to gain the meaning of the answer that would then be represented by a code.

In qualitative inquiry, a code is usually a word or short phrase that captures the essence of the data (Moustakas, 1994). For example, when participants spoke about

sleeping with their pets, the assigned code was *sleeping together*. For all of the data, a total of 84 codes were developed. The frequency of codes was helpful in confirming that 10 participants were the correct number to reach saturation for the study because I could see that often up to eight or nine participants gave similar answers to interview questions.

Knowing that my ultimate task for qualitative data analysis was to develop themes that are influenced not only by verbatim expressions but also by the frequency of codes, I knew that 84 codes were far too many. For example, there were dozens of codes that were only the expressions of one or two participants. This was the point that I contacted my peer second coder to look at the data and the developed codes. She was very helpful in pointing out that many codes could be combined and that several codes could be dropped because they did not occur frequently. I also showed my original list of codes to my chair and she too helped me identify how certain codes could be combined and others discarded. With this information, I returned to the coding table and added a new cell for the final codes that would be used to develop themes. I tabulated the frequency of the codes per participant and determined that if seven to ten participants' responses (codes) were similar, I assigned a theme.

Subthemes for the themes were included if at least five participants' responses were similar. From the newly constructed coding table, I was able to develop four themes for RQ1 (first seven interview questions) with subthemes, and three themes for RQ2 (final three interview questions) with subthemes. A detailed description of themes and subthemes is discussed in the results section of this chapter.

Discrepant Cases

In this study, a homogeneous group of 10 older male, physically impaired pet owners answered 10 interview questions with prompts. In phenomenological research in order to ensure credibility, all discrepant cases must be identified and written about in the study (Patton, 2015). As I became knowledgeable about each participant's verbatim responses and reduced codes, I was able to determine what data really stood out as being different from the others. For example, 9 out of 10 participants were vociferous about how they perceive their pet to be their companion. One participant however, did not feel that way. His response about how he felt about the relationship with his cat was as follows:

> I could share my love with a cat. Some people say a pet is a companion but it's not really like a companion, that's maybe secondary or tertiary. You know? I had my cat die on me and I thought maybe I could do a better job next time. You need to study a lot about cats. There are things that you can prevent, postpone or avoid. You see what I'm saying? But an animal is just an animal not a companion (Cat 2, age 72).

When asked about how participants deal with the medical needs of their pets, 8 out of 10 participants said they would do whatever it took to get their animal(s) to a veterinarian even though it might be costly. Two participants, however, were emphatic about not taking their pets to the vet. One participant's response was as follows:

> They don't have any medical needs. They're indoor cats. I will never have to take them to the vet. I am told that there's no reason to take them to a vet unless

> there's something wrong. Plus when I go with my girlfriend for her cats, she lays down $1000-$2000 per visit. I'm not ever going to do that. That's more money than you spend on humans! (Cat 1, age 82).

When another participant was asked about how he handles his animal's medical needs he said that he didn't need to go to vets because he knows what to do if his animal is sick. His response was as follows:

> So I studied a lot about cats. I study medicine and veterinary medicine on my own. I studied a lot so I can give the cat the right food that can prevent certain kinds of things. I'll give you an example; you know the hard food the solid food? Believe it or not it's not so healthy for the cats. For male cats with, how you call it, the procedure where he's altered? It caused urinary tract infection. Yes I studied it on the Internet. You know you've got to Google. Google different questions and you find many, many answers. You study from many sources and you see what makes logic. I'm very scientific, very logical. So…so now I'm staying more with the wet food. I know what to do.

Evidence of Trustworthiness

Qualitative researchers must be able to show evidence of trustworthiness by establishing credibility, transferability, dependability, and confirmability (Stadtlander, 2015). Evidence of trustworthiness in a qualitative study is the counterpart to a quantitative study's proof of validity (Patton, 2015). With no hypotheses to prove, a qualitative, phenomenological study seeks to show that methods were used during data collection and analysis that show the study's trustworthiness and believability.

Credibility

Credibility in qualitative research shows how well the data of the study is in sync with the focus of the study. To establish credibility, I used prolonged contact with each participant in order to gather the rich, detailed descriptions of the lived experience. In order to prolong contact, I was sure to pose a prompt for interview questions when the participant would not fully describe what he was talking about. I made no assumptions about what each participant meant, on the contrary, when I needed more information, I asked for it.

Another method for achieving credibility in the present study was to confirm saturation. The goal for the study was to interview 10 participants, which turned out to be the correct number to achieve saturation. After the 8th interview, I began to see that several of the participants were giving similar answers to questions. Eager to make sure I achieved saturation, I was lucky to get 10 volunteers for the study. By the end of the 10th interview, I was certain that I had achieved saturation for the study because participants often gave similar answers to each other.

Finally, I used expert review to confirm that the data was meeting the intended focus of the study. I first showed my chair all transcribed interviews and ultimately my coding table to get feedback about how credible the data was. When my chair had approved the data collection and coding phase, I then sent my coding table to a peer coder to ask for input. As mentioned earlier in this chapter, both my chair and my peer coder were helpful in having me pare down codes in order to begin working on the development of themes.

Transferability

Transferability in qualitative research is comparable to external validity in quantitative studies (Stadtlander, 2015). This method asks the researcher to also focus on how the study could be transferable and generalizable to other groups. The strategies that I used to establish transferability were variation in participant selection and thick description. Although I was only able to recruit 3 out of 10 people of color, I was fortunate to discover that there was a range of socioeconomic status among the participants. For example, the four participants who contacted me due to the flyer posted at PAWS Los Angeles were all lower income gentlemen dependent on government assistance. Again, the PAWS organization specifically helps lower income, handicapped seniors to keep their pets. At the other extreme, there were two participants who lived in wealthy neighborhoods with access and means to services that most of the other participants did not have. The remaining four participants were from middle class backgrounds.

Thick description is the process I went through to make sure that I gleaned all the information possible from the data. I poured over the data and ultimately the coding book to the extent that I had total familiarity with each participant's response. Thick description is what ultimately made the data in the study make sense. I felt that the data collected and analyzed in my study might be similar to what future researchers would find if they conducted the study with another group of similar participants.

Dependability

Dependability refers to how accurate the data methods are and whether or not the study is repeatable (Elo et al., 2013). In quantitative studies this process is known as reliability (Stadtlander, 2015). The methods I used to establish dependability were audit trails and triangulation. Audit trails are documents that are kept along with all data to help reinforce the analysis of the lived experiences. Patton (2015) states that audit trails help the researcher log all of the processes involved in conducting the study. From the beginning of data collection, I kept a study journal to write down my impressions and experiences of each interview. This was extremely helpful in documenting a participant's emotions or expressions, and even aspects of their personality. For example, a few participants were passionate and vociferous about talking about the relationship they had with their pet. Others, however, were shy and withdrawn and needed more support and encouragement from me to continue answering the questions. I was able to document this data to be included in the data analysis phase of the study.

Triangulation refers to using several different approached in the ultimate analysis of data. For example, it was not enough to read the transcribed answers of the participants in order to analyze them. In order to achieve triangulation, I looked at the data from different perspectives. When filling out my codebook, I not only looked at the data, but I also looked at my field notes and study journal to help create codes. Once again, I used my chair and peer coder to review the data and codes to give feedback about whether or not they agreed, disagreed, or had another interpretation. I received helpful comments about my codes and how to condense them through analyst triangulation.

Confirmability

Confirmability ultimately shows that the data is about the intended nature of the study and not about my own personal biases or ideas. A study can show confirmability if a reader can see all the steps of data analysis including information from the researchers' own notes and reflections (Elo et al., 2013). The method I used here was the audit trail.

Once again, from the beginning of data collection through the analysis of themes, I kept a study journal to note all the steps of data analysis. Also, as mentioned previously, before every interview, I made sure to check in with myself to confirm that I was in a good state of mind preceding each interview. This process was always noted in my journal and if at any time in the future, a researcher decides to do a similar study, he or she will be able to read about all of the steps I took before finalizing data analysis. Miles et al. (2014) stated that ultimately, a study shows confirmability if other researchers can repeat all of the study's steps.

Results

In the following section the findings of the study are described. The data collected from 10 older male adults who suffer some physical impairment, live alone and own a pet were coded and analyzed for emergent themes and subthemes. Examples of these themes are supported by the verbatim answers of the participants. In order to protect the confidentiality of each participant, pseudonyms were assigned for each individual. If a participant owned a dog, they were called Dog2-Dog6. If a participant owned a cat, they were called Cat1-Cat5.

Themes

The development of themes was achieved by carefully analyzing each response to interview questions. When participants spoke of similar experiences, a code was assigned that preceded the development of the emerging theme or subtheme. In this results section I present and describe each theme along with examples of the participants' statements that support the themes.

RQ1. The first research question was: How do older physically impaired males describe their relationships with their pets? Four themes and three subthemes were identified about the relationships older physically impaired men have with their companion animals. The four themes were, adaptation, companionship, responsibility, and routine. The three subthemes were closeness and proximity, plan for death of owner, and focus on animal instead of self. Participants' expressions of their lived experience are included to reinforce the emergent themes and subthemes.

Adaptation. All of the 10 participants in the study suffered with some form of physical impairment. The most common challenges were mobility problems due to diseases like arthritis and spinal stenosis. When participants were asked about what physical challenges they face in caring for their pet, literally all of them stated that although it can be difficult at times, they believed that their physical impairments did not get in the way of taking care of their animal. In other words, the participants have adapted to their physical limitations and continue to care for their pets successfully. One participant (Dog3, age 71) described this phenomenon as follows:

> I can deal with the challenges but probably this sounds dumb but carrying his food is really difficult and a pain. When it comes to physically being with him, I have adapted to those things for example, I can get down on the floor and play with him as long as I have something to hold onto to get up. Getting up is not so easy but what the hell…I find ways to do it so that I'm near something to hold onto.

Another participant (Dog5, age 69) described how he has adapted to his physical limitations:

> I know that I didn't think of myself as an older person until…well the atrial fibrillation and arthritis. But ever since I got the dog…. well before when my knee got bad I thought it was broken but it turned out to be arthritis and I guess I'd rather have that than go get a new knee. But I started thinking wow, I'm aging! And what do I do? What am I supposed to be doing about it? So realizing that I couldn't run after him (his dog), I started thinking about these things and in 20 years I'll be 90! And Gus might be the last pet I ever have! All these things. Aging and I guess mortality? But I've learned to take care of Gus no matter how I feel.

Companionship. When participants were asked to describe the relationship, they have with their pets, nine participants stressed that their pet was their companion. Although each older male lived alone, they expressed that having an animal made them feel less alone. One participant (Dog3, age 71) described the experience of companionship this way:

Ok, well, he is a companion. He's company. He's not mean, and he doesn't talk back. For the most part, I'm a very easygoing person. I don't yell and scream. I don't fight or hit or do any of that stuff. I never have. So Joe's a good companion. After almost 3 years I pretty much know him and his quirks. I know what to do and how to get him to move (pause) and working at home, most dogs as you know sleep a lot, so he sleeps during the day, but I know the times he has to go out. I tell him, "It's you and me buddy and that's it". We get along good and he's good company.

Another participant, (Dog5, age 69) emphatically expressed how he feels about the relationship he has with his dog:

Oh wow! I think I would give him the regard that I give a friend! A GOOD friend because he really is, um…in terms of contact he's the person I see the most! A companion. I talk to him and I watch out for him. And within his limitations he seems to…well for example, he knows when I have to be awake.

One participant (Cat3) became very animated when asked about what his relationship was like with his cat. He said:

Oh yes! Yes, oh yes, he's definitely my companion. Except for the time when he gets a haircut. Other than that, he's ok. I can pick him up. He won't run away or nothing. He doesn't tear up. He doesn't tear up nothing. Ah, he's very lovable. Well that is a companion—not being alone. You have somebody to come home to. You know somebody that needs YOU! He stays with me at night. He often

> sleeps on the bed. And during the day, he uh…. he often sleeps on the chair next to me.

Subtheme: Closeness and Proximity. When talking about companionship, five of the participants shared that they prefer to be physically close to their animals. Examples of this ranged from sleeping together and eating together to bringing the animal up onto their laps for love and affection. One participant, (Dog2, age 76) expressed it this way:

> Hmm. Well at this point for instance, I'm not sure I could get to sleep if she wasn't in the bed. Because usually I'll go to sleep with my hand on her back or something. And I've thought about that because I have trouble going to sleep anyway. And she's the reason I probably do. I've grown very close to her. I had three dogs 5 years ago and two of them died. And they used to, when I was sleeping in the bed, they used to—the other two would sleep next to me and Cassie would be on the farthest geographical part on the bed. But away from me. Then both of them died and she now has come in and she goes on top of my pillow, so I wake up with a dog on my head (laughs). You know with legs going down either side it's like wearing a dog hat!

Another participant (Dog4, age 86) described how being physically near his dog is comforting:

> He follows me around. If I leave the room after 4 or 5 minutes he'll come looking for me. He just wants to be near me and I love having him near me. He rolls around on the floor. He's not a tall dog but he's a big dog and he weighs 68

> pounds. Um…. sometimes I let him come up on the bed. I mean he's 8 years old now and that makes him about 56 years old so he's an older animal now and I have to be sure to do nothing that would encourage dysplasia you know? Or what causes that. So as long as he can jump up on my bed, but I cannot lift him up at all. But sometimes after I get up, I'll go back to bed for about half an hour and he'll come up with me, and he'll come up and just snuggle up next to me.

Responsibility. When asked whether someone similar to themselves should get a pet, seven participants stressed that the potential owner had to be a responsible person. Participants felt that pet owners needed to know about the breeds and be prepared to feed and finance the care of the animal. Many discussed how veterinarian bills could be expensive and the potential owner must be prepared and responsible for that as well. One participant (Cat5, age 70) for example talked about taking care of the medical needs of his pet and how important it was for him to be able to provide this for his pet:

> I tried to get some information on him and I wasn't sure he had gotten any of his vaccinations. So I got him in recently for three rounds of vaccinations. Couple of weeks apart with each one. So I got that taken care of and he also got a good report, you know, from the vet - so he seems to be a healthy guy.

Subtheme: Plan for death of owner. A subtheme to responsibility had to do with how older pet owners prepare for the care of their animal should something happen to them. Five participants stressed the importance of having a plan to have their pet adopted if they were to die. One participant (Cat2, age 72) talked about what he would do:

> Yeah, yeah, I was worried about it, you know. And it's a very valid question. The main thing is I have an agreement with someone and if something happens to me I call them, and they'll take care of the cat or find another adoption. You know, another person who likes to adopt cats. On the other side, I live in a complex for lower income, it's a government subsidized complex, and I have some friends here who can help me if something happens.

Another participant (Dog2, age 76) said it this way:

> And I've come…I really care about…how she is. Not that I didn't care before but now I'm obsessing about it like what happens if I die? Who's going to take care of her? I assume that my friend Carol would take care of her. But if I thought she wouldn't, I'd be out looking for someone to guarantee me that she would be taken care of. And not being able to take care of her needs is very important to me. It always was so with an animal but now it's much more than ever.

Routine. Eight of the study participants gave a detailed account of their daily routines with their pet. For example, they made sure that their animal was fed on time, exercised, and played with every day. The participants remarked how routine is important when taking care of their pets because pets become dependent on routine. Participants described how their pets know when it's time to eat or in the case of dog ownership, time to go for a walk. One participant (Cat5, age 70) described part of his routine with his pet:

> Early on when I would put food out on the porch he would come over and he would want me to pet him. Then he would eat a little bit then he'd want you to

> pet him. I'm not sure if he likes the food or the attention. And uh, we have developed a little routine where late at night, I usually go to bed around midnight, so usually around 11:30 or so, I'm smoking my last cigarette out on the porch and he's there and when I open the door, he comes in with me. And I put his food up on the dining room table, so he jumps up there and then if I'm walking over—he's watching me---he wants me to sit there with him.

Subtheme: Focus on animal instead of self. A subtheme to the theme of routine was a focus on the pet instead of the self. Five participants expressed that one of the most positive things about pet ownership was the opportunity to care for something outside of themselves. One participant (Dog5, age 69) expressed it this way:

> You know having to take care of him everyday, it sort of gives me something outside of myself to focus on which I think is very healthy for me!

RQ2. The second research question was: What are the lived experiences of older physically impaired men regarding how their animal companions influence physical, psychological, and social health? Four themes and two subthemes were identified in the expressions of the 10 participants. The four themes were caring, physical benefits despite physical limitations, emotional support, and social connections because of pet. The two subthemes were humor, love, and affection, and worry about falls. A description of the themes and subthemes for the second research question are illustrated and supported by verbatim responses to interview questions focusing on the participants' physical, psychological, and social health.

Caring. Eight of the 10 participants talked about how caring for an animal helps them physically, emotionally, and socially. According to the participants, caring involves feeding, exercising, veterinarian visits, cleaning up after the animal, spending time with their pet, and sharing pictures of their pet. One participant (Dog3, age 71) talked about caring this way:

> I care for him and it helps me all around health wise. In my case now, Joe is the only person here besides me and he sleeps beautifully, and I watch him. He's in paradise. It makes me feel very good as long as he's healthy…when he's not, I'll always take care of him. By the way, it is expensive to take care of a dog! Every time I go to the vet it's $500! Yeah, but it's necessary. You would do it for your children, so you do it for him.

Subtheme: Humor, love, and affection. Five of the 10 participants expressed how their animals provide them with humor, love, and affection everyday. Participants talked about how their pets make them laugh and how the relationship they have with their animal provides much needed love and affection. Since all the participants lived alone, several stated that their animals were often the only contact they had with a living being for sometimes days at a time. They believed that humor, love, and affection were instrumental in their physical, psychological, and social health. When asked how his cats affected his physical health, one participant (Cat1, age 82) said:

> My cats are funny! They're good company when they choose to be. Loving. They're warm and fuzzy and they are almost enough for me.

Another participant (Dog6, age 72) who had two dogs and a cat he was taking

care of on his own expressed it this way:

> They make me laugh! They're loving and really affectionate. Yeah, they really make me laugh and I have given them a better life than they could've had.

Physical benefits despite physical limitations. All of the participants suffered from one or more physical limitations or disability. Eight of the 10 participants believed that their pet provided them with physical benefits despite the fact that they suffered with mobility problems. The five dog owners discussed how imperative it was to exercise their dogs everyday. They walked their dogs in their neighborhoods and took them to dog parks. Three of the cat owners talked about how cleaning up after their cats was a physical chore that they had to complete everyday. Although many did not like the activity, they agreed that it was physically healthy for them to use their muscles to clean out the cat box everyday. Examples of how participants believed that their animals provided physical benefits despite their physical limitations are as follows:

> Well he's good for me! He gets me out and walking. Good for a lazy person. I don't do my exercises on a regular basis so he's helpful in that way. Also I sense, that HE SENSES when I don't feel good! (Dog4, age 86).

> She benefits me physically mainly through…She gives me structure. Because she has to be walked. She has to be fed and I get exercise that I otherwise wouldn't get because of her. (Dog2, age 76).

> Well it's physically good for me to care for him. I think that's one of the things that's really good for me. The daily care and feeding and being a companion for

him. And wanting him to have a great place to live, you know. To live his life. (Cat5, age 70)

Two of the cat owners expressed that their cats did not motivate them to exercise nor did they provide a physical benefit to the owner. One of the cat owners (Cat2, age 72), expressed how caring for a cat does not benefit an owner physically. This is how he talked about it:

> Physical health? Not really to be honest with you. But something about me, since I've been disabled for a long time, I try… well I dislike the idea of being disabled. So ever since I've been disabled, I've given myself exercise challenges. Sometimes I can do it and sometimes I can't because I'm too tired. Because I don't sleep well. Oh so, how do I say…..I don't see that the cat affects me I think I get myself to be healthy. Not because of Garfield but because of me. I don't see that much kind of influence.

Subtheme: Worry about falls. Five of the 10 participants felt that their animal could be a fall hazard and that they had to be careful around them. Although none of the participants had experienced a fall due to their animal, several of them had close calls. One cat owner talked about how he has to be careful to not trip over them. He described his worry about falls this way:

> Falling, yeah. Well that's a very good point, you know I am looking when I walk, but it's a very good question. Especially at night. The aging process. I have a very light beginning of cataract. So sometimes because he likes me or trusts me

(he laughs) he could stand around my leg! Unless I look careful and walk careful, you know. That's why I'm worried, but I'm very careful. (Cat 2, age 82).

Another participant talked about his fear of falling:

I'm very careful about how I walk and falling. When we're walking, he's a sniffer. And so I really don't get any kind of aerobic exercise with him. I mean I'm walking him and I can't walk fast…Well actually if I could I'd be pulling him all the time because he likes to smell everything. Every ten inches or so. It's a strong pull and he can pull me over if I'm not paying attention. So there's that possibility! And he's crossing over in front of me sometimes. It's been a near fall but I have not fallen because of him. (Dog4, age 82).

One dog owner talked about how his dog darts around him and circles around his legs, and feet:

Um…I used to worry in the beginning, but he seems to know how I move now. And also I'm very careful when I'm moving around him too, because he's impulsive. No actual falls but I've had a couple of close calls. Where they get your body and you almost trip. I worry about that. (Dog6, age 72).

Emotional support. When participants were asked how their companion animal affected their psychological health, seven participants out of 10 expressed that their pets were positive in relation to their psychological health and were in fact providing their owners with emotional support. Emotional support is an aspect of psychological health and several participants expressed how their animal helped them feel better emotionally. One participant (Cat1, age 82) remarked:

> The cats help in a positive way. They are here! They're literally something to hold onto and to talk to. Just looking at them is a positive psychological thing.

Another participant (Dog2, age 76) stressed that his dog provides him with emotional support:

> There's a certain level of contentment and happiness that I have because she is around. Like when she sleeps at night and she snores a little bit, I take that to mean that she's content. And that helps me feel good psychologically. Just having a dog that I look forward to coming home to.

When another participant (Dog5, age 69) was asked how his pet might influence his psychological health, he replied:

> I notice something. I laugh and smile when he's around. Very spontaneously! I mean sometimes I come home and like this last Friday was terrible. I was very distracted by that but he would come be with me and I would laugh and smile. You know this is interesting—you know…like you're distracting me from this thing that happened. I think that's a good thing!

One participant (Cat4, age 69) put it this way:

> She's very relaxing to sit and pet, uh…an animal, you know? I've had dogs, I've had cats. She's my third cat, over my lifetime. I think that dogs, when I had a house I had a dog. Um…they are all the same as far as that goes. But to have a companion when you're by yourself….that makes a big difference in how I feel. It's somebody to come home and talk to for support.

Social connections because of pet. Seven of the 10 participants were emphatic about how their animals helped them socially. All of the dog owners in the study (5) spoke about how when they walk their dogs, they have opportunities to meet people and other animal owners on the street. One participant (Dog4, age 86) expressed this phenomenon like this:

> Yeah, there's one man my age or older and he lives about three blocks away. And he has two little puppy dogs. I don't know what they are but they're very small. But he walks them and he's taken a liking to Bruno. So if we're walking in opposite directions or something or other, he'll come over and cross the street because he really likes Bruno. And so I see him and I've had people stop me on the street, asking me what kind of dog he is. And uh..And sometimes, I only live about 3 blocks from Burbank high school, so if I'm walking the dog in the afternoon around 3:30 or 4 in the nice weather, and they're coming out of school. And it's always the girls! They always say, "Aww! He's so cute!" and I just smile and someone will say, can we pet him and it's very….well, it makes me feel really good.

Another participant (Dog2, age 76) talked about how his dog is a big part of his social life:

> Her connections are my personal friends….and it's always an easy way to connect with someone out on a walk who you wouldn't give the time of day to and vice versa if they and you didn't have a dog.

A participant (Cat4, age 69) who was a cat owner talked about how sharing

pictures of his pet is a big part of his social interactions with friends:

> Oh yeah yeah! I have hundreds of pictures of her I got. Hundreds of pictures of her doing funny things that I show my friends. Stuff like that.

Summary

This chapter provided a detailed description of the results of the study. Beginning with the pilot study, I found that the addition of prompts for interview questions were essential in gathering the lived experiences of the study participants. Next, the setting for the study was described. The mechanics of successful consent form completion, the placement of fliers and advertisements, and the recording and transcribing of interviews was illustrated. Participant demographics are included in this chapter along with a detailed account of data collection methods and the process of data analysis. Discrepant cases were noted, and issues of trustworthiness were described and explained. The chapter ended with the results of the interviews. and the findings are supported by the verbatim responses of the 10 study participants.

The themes that emerged from RQ1 were adaptation, companionship, responsibility, and routine. The three subthemes for the first research question were closeness and proximity, plan for death of owner, and focus on animal instead of self. The themes that emerged from RQ2 were caring, physical benefits despite physical limitation, emotional support, and social connections because of pet. The two subthemes for the second research question were humor, love, and affection, and worry about falls. All themes and subthemes were shown and illustrated by the 10 participants' own words. Chapter 5 will show the interpretation of the study's results along with the illustrations of

the study's limitations, recommendations for future research, and implications for social change.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of the present study was to understand the lived experiences of older adult males who suffer with a physical limitation, and the relationship they have with their pets. Interview questions focused on how that relationship influenced physical, psychological, and social health. Chapter 5 includes an interpretation of the findings. The research questions for this phenomenological study were:

RQ1: What are the relationships that older physically impaired males have with their pets?

RQ2: What are the lived experiences of older physically impaired men regarding how their animal companions influence physical, psychological, and social health?

The participants answered 10 interview questions with prompts revealing their thoughts, feelings, and opinions about pet ownership and the relationship they have with their companion animal. Several themes and subthemes were revealed after the transcription and coding process for the study which further informed the participants' lived experiences: Adaptation, companionship, closeness and proximity, responsibility, plan for death of owner, routine, focus on animal instead of self, caring, physical benefits despite physical limitations, worry about falls, emotional support, and social connections because of the pet. Chapter 5 also illustrates the study limitations, recommendations, and implications for social change.

Interpretation of the Findings

According to the CDC (2013), two thirds of US citizens over the age of 65 have multiple physical conditions that require medical treatment. All 10 of the participants in the present study suffered some kind of physical limitation. Due to their age, the participants were also experiencing biological aging which is the process where the body is challenged to fight deteriorative stressors that influence the aging process (Agogo et al., 2014). The NIH (2010) stated that adults over the age of 65 are more likely to suffer one or more disabilities. Wan and Larsen (2014) showed that the disabilities that older adults suffer from involve mobility problems, vision and hearing loss, and arthritis. All 10 participants had problems with ambulation and mobility that made caring for their animals challenging at times. However, the 10 participants appeared to have good self-efficacy, which is defined as an individual's own belief in himself or herself to accomplish life's challenges (Sakakibara et al., 2014). For example, all of the participants in the present study talked about how despite their physical limitations, they still felt that they could take care of themselves and their pets without help. There is a positive relationship between having pets and self-perceived health, and older impaired adults share that they feel confident about being able to take care of their pet's needs (Pino et al., 2014).

The 10 participants showed that they had adapted to their physical limitations and even though they admitted that sometimes it was difficult, they all said that they felt confident that they could take care of their pet despite their disabilities. As adults become older, they adapt to their health deficits and often say that they feel well for their

age (Giron, 2012; Leinonen et al., 2001). The participants did not complain about their physical deficits; instead, they focused on how they could manage life with physical limitations.

Pohnert (2010) found that dog owners have increased opportunities for physical and social health. The participants in the present study who were dog owners talked about how they had to walk their pet every day even though it may be physically challenging. Older dog owners exercise more regularly than their older counterparts who are not dog owners (Feng et al., 2014; Hope, 2012; Motooka et al., 2006). Even the cat owners in the study commented that their cats help them physically because feeding, cleaning up, and playing with them required physical effort and activity they would otherwise not get.

Most of the participants in the current study felt strongly that their pet was their companion. They talked about how their pet helped them to feel less lonely and not alone. Given the fact that all 10 participants lived alone with their pets, feeling less lonely proved to be a positive psychological benefit. Companionship is the primary reason why pet owners love their animals (Friedmann & Son, 2009; Smolkovic et al., 2012). Loneliness and social isolation are linked with both the biological and behavioral health of vulnerable older adults, where elevated blood pressure, impaired sleep, depression, altered immunity, and suicidal ideation are increased (Cacioppo et al., 2010; Hagan et al., 2014; Shankar et al., 2011). None of the study participants spoke of these biological and behavioral phenomena; instead, they focused on how their pet was their companion and helped them feel less alone.

Five of the 10 participants worried about what would happen to their pet if they were to become permanently disabled or die. Although it is an important concern to plan for the future care of the animal, the literature does not show any studies on the subject. Participants in the present study talked about planning for the care of their animal if something were to happen to them. Five participants expressed anxiety about making sure their pets were going to be adopted should they outlive the owner. One participant (Cat2) said: "Nothing is going to happen to me so I don't have to make any plans for my cat's future!"

Half of the participants expressed concern that their pet was a fall hazard. Having household pets can perpetuate falls in the home (Ambrose et al., 2013; Heinrich et al., 2010). The most common cause of injury and death among older adults is falling (CDC, 2010). One out of three older adults fall annually, and pets can sometimes be a fall hazard (CDC, 2010; WHO, 2008). Chur-Hansen et al. (2008) found that older former pet owners were afraid to get another pet because of the potential for falling. Participants talked about how they had many close calls when it came to falling because of their pet and they were very deliberate and focused about how they moved around their pet so they did not trip and fall.

The present study was conducted using the tenets of biopsychosocial theory. Engel (1977; 1980) believed that biomedicine was not enough to explain disease. Engel posited that physical, psychological, and social aspects of an individual's life must be examined to treat the whole person. A goal of accurately analyzing and diagnosing disease involves listening to and understanding the individual's verbal account of the

phenomenon of his or her disease (Borell-Carrio et al., 2004). All 10 participants answered questions about how their pets influenced their physical, emotional, and social health. Nine of the participants felt strongly that their companion animal positively affected their physical, psychological, and social health.

The obvious physical benefit for dog owners is walking the animal and all dog owners in the study reported that they get exercise they normally would not get if they did not have a pet. Cat owners in the study also felt that there were physical benefits to caring for a cat like cleaning up after the animals. For older adults who are physically limited, cleaning up after a cat can be physically demanding, but all the cat owners felt it was good for them.

Krause-Parello (2012) and Ruzix et al. (2011) found that older adults believed their pets to be helpful to alleviate depression and loneliness. Nine of the participants believed that their pets provided them with emotional support. They remarked about how giving and receiving love and affection from their pet made them feel happier and less depressed. Several participants remarked how their pets made them smile. Nelson (2015) examined how cats can help facilitate psychological healing. The participants in his study believed that their cats even prevented them from committing suicide and the social benefit they received was the feeling that their cats were their best friends.

All of the dog owners and some of the cat owners in the study believed that their pets helped them to be more socially active. Lang et al. (2013) found that older adults have to put more effort into socializing compared with their younger counterparts because they tend to be more isolated, suffer from a disability, or have experienced more

grief and loss due to their contemporaries dying. Regularly socializing with others helps the older adult's self-perceptions of independence and dignity (Black et al., 2015).

In the present study, participants talked about how socializing with others can be challenging due to their disabilities. Despite their limitations, all the dog owners mentioned the increased opportunities to talk to other people when walking their dogs in their neighborhoods. One of the cat owners mentioned that he takes his cat with him to socialize with other older adults in his building. Cat owners in the study also mentioned that sharing photos of their cats with family and friends was another way for them to be social with others. Melendez et al. (2009) showed that an older adult's social network is strongly related to his or her well-being. The participants in the present study expressed that their pets were part of their social network.

Limitations

The sample for the present study was all older men with physical limitations, who lived alone in the community and owned a pet. Although every attempt was made to recruit a diverse sample, 70% of the participants were white, 20% were black, and 10% were mixed race. Recruitment flyers were posted in churches and senior centers in different demographically diverse areas of Los Angeles, California to invite more people of color. The final group of participants who volunteered for the study, however, was mostly white. Therefore, one limitation to the present study was that there were not more people of color.

Very few recruitment locations produced volunteers for the study. Another limitation of the study was the fact that the only people who could volunteer to

participate were individuals who were exposed to the flyer, except for two participants who volunteered due to snowball sampling. This phenomenological study produced good results, but it cannot be said that the study is transferable to the larger population of older, handicapped males who live alone and own a pet. Any generalizations to the larger population cannot be made, however, the present study may be sufficient in comparing outcomes of other studies on the same subject, where a similar small group of older men participate in a qualitative study.

Another limitation to the present study could be the structure and presentation of the interview questions. The pilot study was helpful in showing me that I needed several prompts for each question. Each study participant answered all 10 interview questions and prompts, shedding light on the lived experiences of the relationship they had with their pet(s). It is possible that another researcher studying the same topic might learn more or less by constructing different questions or prompts.

In the present study, the most common physical disability was mobility problems due to diseases like arthritis, peripheral neuropathy, and spinal stenosis. Therefore, another limitation to the study is that future researchers may get different results with older men who suffer with other medical issues making it challenging for them to care for pets. Telephone interviews were conducted with eight participants and two participants were interviewed in person. The telephone interviews were a limitation to the study in that they did not provide the important non-verbal communication that I experienced in the live interviews. Future research is needed regarding what method (telephone, or in-person interview) produces the best results when studying a small homogeneous group.

Recommendations

The present study provided a deeper understanding of the lived experiences of older, physically impaired men who live alone, and the relationship that they have with their companion animal. As there has been a dearth of information on this population, the present study examined the phenomenon of pet ownership for physically impaired older men. In 2015, the WHO stated that between the years of 2015 and 2050, the world's population of older adults (65+) is expected to increase from 12% to 22%, therefore future quantitative and qualitative studies should be conducted that focus on older adults and the advantages and disadvantages of having a pet from a public health perspective. It is important to conduct similar research with older males and their pets as opposed to older females because there are very few studies that do so.

Future studies on the subject should focus more on ethnic diversity and socioeconomic status. Although the present study's participants came from varying socioeconomic backgrounds, it was not a focus of the study. Even though all of the participants who volunteered from the PAWS organization in Los Angeles lived in government subsidized housing, the remainder of the participants were living comfortably in retirement or semi-retirement. Although every attempt was made to recruit an ethnically diverse sample, I still ended up with a group of individuals where 7 out of 10 were Caucasian.

Due to the study's biopsychosocial approach, future studies could also examine how owning a pet for an older male adult influences physical, psychological, and social health. The participants in the present study believed that their pet was a benefit to their

overall health except for concern regarding falling due to the pet. A future quantitative study could look at the incidence of reported falls by pet owners.

Researchers in the future could look at comparing self-efficacy and perceived health in pet owners vs. non-pet owners. The present study found that older physically impaired males believe that they can take care of their pet on their own despite their limitations. Their self-efficacy and self-perceived health status was positive. Future researchers could also focus on this phenomenon where no matter how physically challenged an older adult may be, he still may see himself as capable of caring for his pet without help. Future studies on personal resilience under adversity with both small and large samples of older physically impaired males could shed more light on the phenomenon of good self-efficacy despite challenges.

Implications for Social Change

The present study showed that there are many opportunities to effect social change for individuals, groups, and society at large. Participants adapted to their physical limitations and expressed how their animal positively affected their physical, psychological, and social health. For more than half of the participants, a concern for falling due to the pet existed, as well as the question of who would care for the animal should the owner predecease the pet. These phenomena will be discussed further below.

Similar to the literature, the present study found that pets provide the older male adult with motivation to exercise (Pohnert, 2010), companionship (Friedmann et al., 2009; Smolkovic et al., 2012) less loneliness (Keegan, 2014; Krause-Parello et al., Pikhartova et al., 2014) and improved psychological well-being (Keefer et al, 2014).

Participants also felt physically capable and proud of themselves for being able to take care of their pets despite challenges. Self-esteem is increased when caring for a pet (Anderson et al., 2015; Campo et al., 2013). In private and public settings, geriatric practitioners could speak about the advantages of pet ownership for older adults and make recommendations for animal companionship for older adults who live alone.

Dog owners in the study expressed that their animal gave them more opportunities to be social. Some of the participants who were cat owners, also spoke about how they shared pictures and stories about their cats with friends and family members. This made the cat owners feel more social because of their cats. For older pet owners who are computer literate, social media sites that focus on animal ownership can also be an addition to the social lives of the individuals. Melendez et al. (2009) showed that overall health is strongly related to the older adult's social life, and Pohert (2012) found that older adults who are socially isolated are less likely to practice healthy self-care and more likely to become physically ill.

The study's implications for social change focus on the future overall health of the older adult male as well as fall prevention, estate planning, and opportunities for socialization. The CDC (2010) stated that over 700,000 older adults in the United States are hospitalized for falling each year. Adults over the age of 65 are at the highest risk for falling, which is the most common cause of injury and death for older adults (CDC, 2010). Pets are a known fall risk and animal owners must be prepared to prevent falling at all costs. Health care workers, veterinarians, pet store owners and employees could do more to educate pet owners to be mindful of how their pet moves around so as not to fall.

For example, older adults could be instructed as to how to train their pets to stay away from their owner's feet. Public service announcements could be made by placing advertisements on animal food product bags and containers that encourage pet owners to beware of falling due to their animal.

The participants in the present study showed concern for what would happen to their pet if something happened to them. A few of the older men had plans in place, however most did not. Lawyers who are estate planners could work with older adults to counsel them about how to plan for their pet's care. Anderson et al. (2015) showed that when older adults create legal trusts that provide instructions about how the pet is cared for, the individuals feel less stress and uncertain about the future of their animal.

The present study's implications for social change may also be shown in a change in the social behaviors of the older male adult in relation to his pet. Because dogs need to be walked every day, dog owners have increased opportunities to socialize with others in the neighborhood or dog park. Participants in the present study did not report feeling socially isolated and felt that their pet was company when they were lonely. Half of the older men in the study were recruited by seeing the flier at the PAWS organization of Los Angeles.

As mentioned in Chapter 4, PAWS is an organization that helps older, handicapped, low-income seniors to keep their pets. PAWS also provides animal food and veterinarian visits for their members when they are in need. This is a model organization that could be started in other cities in the country in order to provide services for the older, physically limited pet owner.

Physical, mental, social and occupational healthcare workers, religious leaders, counselors, and teachers could recommend the idea of getting a pet to an older adult who lives alone and is socially limited. They could recommend for example that an older individual who is ambulatory may consider getting a dog in order to increase social interaction and physical activity. Even cats, as the present study demonstrates, can increase socialization through the sharing of photos with others. The participants in the present study who were all physically limited unanimously said that they would recommend that someone just like themselves should get a pet. Therefore, even for some older individuals who are handicapped, pet ownership can be a positive, safe, and rewarding experience.

Conclusion

The results of this study revealed that older male, physically impaired pet owners have adapted to their limitations and feel confident about taking care of their animals despite their disabilities. Using biopsychosocial theory as a guiding construct for the study, the participants discussed their lived experiences about the relationships they have with their pets and how their animal affects their overall health. The older males expressed that they see their pets as companions and that having a pet is a benefit to the owner's physical, psychological, and social health. In the literature there is great support for the overall health benefits of pet ownership for physically impaired older adults (Huss, 2014; Johansson et al., 2014), however, this phenomenological study was the first of its kind to examine the older, disabled male and the relationship he had with his pet.

The themes and subthemes that emerged from the intensive interviews with the participants were companionship, responsibility, plan for death of owner, routine, focus on animal instead of self, physical benefits despite physical limitations, worry about falls, emotional support, and social connections because of the pet. The participants unanimously spoke of how their pets are an important and positive relationship in their lives.

A few salient results were revealed, and they were a concern for the animal should the owner predecease the pet, and a concern about falling due to the pet. These results provide a laudable reason to consider conducting more studies regarding these phenomena as older adults need to plan for their pet's future care and prevent falls. For example, the CDC (2009) showed that there were over 86,000 falls a year due to household pets and that 90% of all hip fractures among older adults are because of falls (CDC, 2010).

Older adults who live alone in the United States is on the rise (FORUM, 2012). Socially isolated older adults suffer with physical symptoms like poorer systolic blood pressure, increased cholesterol, impaired sleep, obesity, altered immunity, and poor physical health (Cacioppo et al., 2010; Grant et al., 2009). Stanley et al. (2014) found that older adult pet owners who live alone are 36% less likely to feel lonely and alone compared to non-pet owners. The majority of the participants in the present study believed they were not alone because they had a loving pet. Krause-Parello (2012) performed a similar qualitative study with older, healthy women and found that pets provided the older women with companionship, social support, and a sense of purpose.

These results are similar to the present study as most of the participants felt that taking care of their animal gave them a sense of self-worth and a reason to socialize with others.

Previous research primarily supports the health benefits of animal ownership (Huss, 2014; Johansson et al., 2014). The present study's results indicate that there is great support for the health benefits of pet ownership for physically impaired older men, and the participants touted the animal relationship as being related to their overall physical, psychological, and social well-being. There is a large literature on the human-animal bond and its physical, psychological, and social benefits for older adults (Chur-Hansen et al., 2010; Silcox et al., 2014). This study adds to the literature and fills a gap, as older, physically impaired males who live alone and own a pet have not been studied before.

In closing, I have to say that the experience of interviewing 10 older gentlemen about the relationship they have with their pets was such a privilege. Every one of the participants was open and revealing about their physical, emotional, and social lives as it related to their pet and I was very fortunate to meet and interview these wonderful individuals. All 10 participants had extremely close relationships with their pets and they talked about what it was like to be with them with much enthusiasm. I also want to acknowledge that the PAWS organization in Los Angeles is a model institution that specifically helps low-income seniors to keep their pets. PAWS provides pet food and veterinarian care for older adults who cannot afford it. I applaud PAWS and recommend that other cities in the United States follow their lead and create similar organizations to help low-income seniors keep their beloved pets.

References

Abolfathi Momtaz, Y., Ibrahim, R., & Hamid, T. A. (2014). The impact of giving support to others on older adults' perceived health status. *Psychogeriatrics, 14*, 31-37. doi:10.1111/psyg.12036

Adams, K. B., Leibbrandt, S., & Moon, H. (2011). A critical review of the literature on social and leisure activity and wellbeing in later life. *Ageing & Society, 31*, 683-712. doi:10.1017/S0144686X10001091

Administration on Aging for the U.S. Department of Health and Human Services (2014). A profile of older Americans: 2014. Retrieved from https://www.acl.gov/sites/default/files/Aging%20and%20Disability%20in%20America/2014-Profile.pdf

Agogo, D., Milne, G. R., & Schewe, C. D. (2014). Time benders: A model of subjective aging in aging adults. *Health Marketing Quarterly, 31*(4), 383-398. doi:10.1080/07359683.2014.966010

Aldwin, C. M., & Gilmer, D. F. (2013). *Health, Illness, and Optimal Aging: Biological and Psychosocial Perspectives.* (2nd Ed.). New York, NY: Springer Publishing Company.

Ambrose, A. F., Paul, G., & Hausdorff, J. M. (2013). Risk factors for falls among older adults: A review of the literature. *Maturitas, 75*(1), 51-61. doi:10.1016/j.maturitas.2014.02.009

American Psychological Association (2010). Ethical principles of psychologists and code of conduct. Retrieved from http://www.apa.org/ethics/code/

American Veterinary Medical Association (2012). Animal-human bond. Retrieved from https://www.avma.org/KB/Resources/Reference/human-animal-bond/Pages/Human-Animal-Bond-AVMA.aspx

Amiot, C. E., & Bastian, B. (2015). Toward a psychology of human-animal relations. *Psychological Bulletin, 141*(1), 6-47. doi:10.1037/a0038147

Anaby, D., Miller, W. C., Eng, J. J., Jarus, T., & Noreau, L. (2009). Can personal and environmental factors explain participation of older adults? *Disability and Rehabilitation, 31*(15), 1275-1282. doi:10.1080/09638280802572940

Anaby, D., Miller, W.C., Eng, J. J., Jarus, T., & Noreau, L. (2011). Participation and well-being among older adults living with chronic conditions. *Social Indicators Research, 100*, 171-183. doi:10.1007/s11205-010-9611-x

Anderson, K.A., Lord, K.K., Hill, L.N., & McCune, S. (2015). Fostering the human animal bond for older adults: Challenges and opportunities. *Activities, Adaptation & Aging, 39,* 32-42. doi:10.1080/01924788.2015.994447

Antonacopoulos, N. M. D., & Pychyl, T. A. (2010). An examination of the potential role of pet ownership, human social support and pet attachment in the psychological health of individuals living alone. *Anthrozoos, 23*(1), 37-54. doi: 10.2752/175303710X12627079939143

Antonucci, T., Akiyama, H., & Takahashi, K. (2004). Attachment and close relationships across the life span. *Attachment and Human Development, 6*(4), 353-370. doi: 10.1080/1461673042000303136

Artaud, F., Dugravot, A., Sabia, S., Singh-Manoux, A., Tzourio, C. & Elbaz, A. (2013). Unhealthy behaviors and disability in older adults: Three-city Dijon cohort study. *BMJ, 347,* 1-15. doi: 10.1136/bmj.f4240

Ayers, D. C., & Ring, D. C. (2013). The role of emotional health in functional outcomes after orthopaedic surgery: Extending the biopsychosocial model to orthopaedics. *The Journal of Bone and Joint Surgery, 95*, 1-7. doi: 10.2106/JBJS.L.00799

Batsis, J., Mackenzie, T. A., Barre, L. K., Lopez-Jimenez, F., & Bartels, S. J. (2014). Sacopenia, sarcopenic obesity and mortality in older adults: Results from the National Health and Nutrition Examination Survey III. *European Journal of Clinical Nutrition, 68,* 1001-1007. doi: 10.1038/ejnc.2014.117

Beck, A. M., & Madresh, L. (2008). Romantic partners and four-legged friends: An extension of attachment theory to relationships with pets. *Anthrozoos, 21*, 43-57.

Bettens, G.F., Ownsworth, T., Hohaus, L. & McKendry, Y. (2014). Assessing accuracy of knowledge of cognitive effects of normal aging and mild stage of Alzheimer's disease. *Aging and Mental Health, 18*(3), 296-303. doi: 10.1080/13607863.2013.827629

Bherer, L., Erickson, K. I., & Liu-Ambrose, T. (2013). A review of the effects of physical activity and exercise on cognitive and brain functions in older adults. *Journal of Aging Research,* 1-8. doi: 10.1155/2013/657508

Black, K., Dobbs, D., & Young, T. L. (2015). Aging in community: Mobilizing a new paradigm of older adults as a core social resource. *Journal of Applied Gerontology, 34*(2), 219-243. doi: 10.1177/0733464812463984

Blackburn, J.A., & Dulmus, C. N. (2007). *Handbook of Gerontology: Evidence-based approaches to theory, practice and policy.* NJ: Wiley.

Blazer, D. G. (2009). Depression in late life: Review and commentary. *Journal of Gerontology, 58*(3), 249-265. doi: 10.1093/Gerona/58.3.M249

Borrell-Carrio, F., Suchman, A. L., & Epstein, R. M. (2004). The biopsychosocial model 25 years later: Principles, practice, and scientific inquiry. *Annals of Family Medicine, 2*(6), 576-582.

Bowlby, J. (1982). *Attachment and loss: Vol 1. Attachment* (2nd ed.). New York: Basic Books (Original Ed. 1969).

Braun, M. T. (2013). Obstacles to social networking website use among older adults. *Computers in Human Behavior, 29*, 673-680. doi: 10.1016/j.chb.2012.12.004

Bretherton, I. (1992). The origins of attachment theory: John Bowlby and Mary Ainsworth. *Developmental Psychology, 28*, 759-775.

Bromell, L., & Cagney, K. A. (2014). Companionship in the neighborhood context: Older adults' living arrangements and perceptions of social cohesion. *Research on Aging, 36*(2), 228-243. doi: 10.1177/0164027512475096

Brown, S. E. (2007). Companion animals as selfobjects. *Anthrozoos, 20*(4), 329-343. doi: 10.2752/089279307X245654

Buford, T., Lott, D. J., Marzetti, E., Wohlgemuth, S. E., Vandenborne, K., Pahor, M., Leeuwenburgh, C., & Manini, T. M. (2012). Age-related differences in lower extremity tissue compartments and associations with physical function in older adults. *Experimental Gerontology, 47,* 38-44. doi: 10.1016/j.exger.2011.10.001

Byrd, L. (2011). *Top 10 Geriatric Syndromes: Clinical Management Strategies.* United States: PHC Publishing Group.

Cacioppo, J. T., Hawkley, L. C., & Thisted R. A. (2010). Perceived social isolation makes me sad: 5-year cross-lagged analyses of loneliness and depressive symptomatology in the Chicago health, aging, and social relations study. *Psychology and Aging, 25*(2), 453-463. doi: 10.1037/a0017216

Cadore, E. L., Rodriguez-Manas, L., Sinclair, A., & Izquierdo, M. (2013). Effects of different exercise interventions on risk of falls, gait ability, and balance in physically frail older adults: A systematic review. *Rejuvenation Research, 16*(2), 105-114. doi: 10.1089/rej.2012.1397

California Department of Social Services (2017). Retrieved from: www.cdss.ca.gov.

Campo, R., & Uchino, B. (2013). Human's bonding with their companion dogs: Cardiovascular benefits during and after stress. *Journal of Sociology and Social Welfare, 40*(4), 237-259.

CatCom (2017). Cat Convention. Retrieved from https://www.catconworldwide.com/

Cavanagh, S. (1997). Content analysis: Concepts, methods and applications. *Nurse Researcher, 4*, 5-16.

Centers for Disease Control and Prevention (CDC, 2009). Nonfatal fall-related injuries associated with dogs and cats: United States, 2001-2006. *MMWR Morbidity and Mortality Weekly Report, 58*(11), 227-281

Centers for Disease Control and Prevention (2010). Falls among older adults: An overview. Retrieved from .https://www.cdc.gov/homeandrecreationalsafety/falls/index.html

Centers for Disease Control and Prevention (2013). The state of aging and health in America, 2013. Retrieved from https://www.cdc.gov/aging/pdf/state-aging-health-in-america-2013.pdf

Centers for Disease Control (2016). The state of mental health and aging in America. Retrieved from https://www.cdc.gov/aging/agingdata/data-portal/mental-health.html

Chang, P., Wray, L., & Lin, Y. (2014). Social relationships, leisure activity, and health in older adults. *Health Psychology, 33*(6), 516-523. doi: 10.1037/hea0000051

Chatterji, S., Byles, J., Cutler, D., Seeman, T., & Verdes, E. (2014). Health, functioning, and disability in older adults-present status and future implications. *Lancet, 385*, 563-575. doi: 10.1016/S0140-6736(14)61462-8

Cherry, K. E., Marks, L. D., Benedetto, T., Sullivan, M. C., & Barker, A. (2013). Perceptions of longevity and successful aging in very old adults. *Journal of Religion, Spirituality & Aging, 25*(4), 288-310. doi: 10.1080/15528030.2013.765368

Cherniack, E. P., & Cherniack, A. R. (2014). The benefit of pets and animal-assisted therapy to the health of older individuals. *Current Gerontology and Geriatrics Research,* 1-9. doi: 10.1155/2014/623203

Chida, Y., Hamer, M., Wardle, J., Steptoe, A. (2008). Do stress-related psychosocial factors contribute to cancer incidence and survival? *Nature Clinical Practice Oncology, 5*(8), 466-475. doi: 10.1038/ncponc1134

Chur-Hansen, A., Winefield, H., & Beckwith, M. (2008). Reasons given by elderly men and women for not owning a pet, and the implications for clinical practice and research. *Journal of Health Psychology, 13*(8), 988-995. doi: 10.1177/1359105308097961

Chur-Hansen, A., Winefield, H. R., & Beckwith, M. (2009). Companion animals for elderly women: The importance of attachment. *Qualitative Research in Psychology, 6,* 281-293. doi: 10.1080/14780880802314288

Chur-Hansen, A., Stern, C., & Winefield, H. (2010). Gaps in the evidence about companion animals and human health: Some suggestions for progress. *International Journal of Evidence-Based Healthcare, 8,* 140-146. doi: 10.1111.j.1744-1609.2010.00176.x

Cicirelli, V. G. (2010). Attachment relationships in old age. *Journal of Social and Personal Relationships, 27*, 191-199.

Clegg, A., Young, J., Iliffe, S., Rikkert, M. O., & Rockwood, K (2013). Frailty in elderly people. The Lancet, 38(9868), 752-762. doi: 10.1016/S0140-6736(12)62167-9

Cohen, S. P. (2002). Can pets function as family members? *Western Journal of Nursing Research, 24,* 621-638. doi: 10.1177/019394502320555386

Columbo, G., Buono, M. D., Smania, K., Raviola, R., & de Leo, D. (2006). Pet therapy and instituionalized elderly: A study on 144 cognitively unimpaired subjects.

Archives of Gerontology and Geriatrics, 42(2), 207-216. doi: 10.1016/j.archger.2005.06.011

Cornwell, B., Laumann, E. O., & Schumm, L. (2008). The Social Connectedness of Older Adults: A National Profile. *American Sociological Review, 73*(2), 185-203. doi: 10.1177/000312240807300201

Cornwell, E. Y., & Waite, L. J. (2009). Social disconnectedness, perceived isolation, and health among older adults. *Journal of Health and Social Behavior, 50*, 31-48. doi: 10.1177/002214650905000103

Cramm, J. M., Twisk, J., & Nieboer, A. P. (2014). Self-management abilities and frailty are important for healthy aging among community-dwelling older people; a cross-sectional study. *BMC Geriatrics, 14*(28), 1-6. doi: 10.1186/1471-2318-14-28

Creswell, J. W. (2009). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches.* (3rd Ed.). Sage Publications: Thousand Oaks, California. USA.

Creswell, J. W. (2013). *Qualitative Inquiry and Research Design.* (3rd Ed.). Thousand Oaks, California. USA: Sage Publications.

Cruz-Jentoft, A. J., Landi, F., Schneider, S. M., Zuniga, C., Arai, H., Boirie, Y., Chen, L. K., Fielding, R. A., Martin, F. C., Michel, J., Sieber, C., Stout, J. R., Studenski, S. A., Vellas, B., Woo, J., Zamboni, M., & Cederholm, T. (2014). Prevalence of and intervention s for sarcopenia in ageing adults: A systematic review. Report of the international sarcopenia initiative (EWGSOP and IWGS). *Age and Ageing, 43,* 748-759. doi: 10.1093/ageing/afu115

Dennis, N.A., & Cabeza, R. (2008). Neuroimaging of healthy cognitive aging. *The handbook of aging and cognition, 3*, 1-54.

De Vries, N. M., Ravensberg, C. D., Hobbelen, J. S. M., Rikkert, M., Staal, J. B., & Nijhuis-van der Sanden, M. W. (2012). Effects of physical exercise therapy on mobility, physical functioning, physical activity and quality of life in community-dwelling older adults with impaired mobility, physical disability and/or multi-morbidity: A meta-analysis. *Ageing Research Review, 11,* 136-149. doi: 10.1016/j.arr2011.11.002

Dickson-Swift, V., James, E. L., Kippen, S., & Liamputtong, P. (2007). Doing sensitive research: What challenges do qualitative researchers face? *Qualitative Research, 7*(3), 327-353. doi: 10.1177/1368794107078515

Dunlop, D. D., Semanik, P., Song, J., Manheim, L. M., Shih, V., & Chang, R. W. (2005). Risk factors for functional decline in older adults with arthritis. *Arthritis and Rheumatology, 52*(4), 1274-1282.

Dunlop, D. D., Song, J., Arntson, E. K., Semanik, P. A., Lee, J., Chang, R. W., & Hootman, J. M. (2015). Sedentary time in U.S. older adults associated with disability in activities of daily living independent of physical activity. *Journal of Physical Activity and Health, 12*(1), 93-101. doi: 10.1123/jpah.2013-0311

Dwyer, S. C., & Buckle, J. L. (2008). The space between: On being an insider-outsider in qualitative research. *International Journal of Qualitative Methods, 8*(1), 54-63. doi: 10.1177/1468794112446107

Eisenberger, N. I. (2013). An empirical review of the neural underpinnings of receiving and giving social support: Implications for health. *Psychosomatic Medicine, 75*(6), 545-556. doi: 10.1097/PSY.0b13e31829de2e7

Eliasen, M., Kreiner, S., Ebstrup, J., Poulsen, C., Lau, C. J., Skovbjerg, S., Fink, P. K., & Jorgensen, T. (2016). Somatic symptoms: Prevalence, co-occurrence and associations with self-perceived health and limitations due to physical health: A Danish population-based study. PLOS One, 11(3), 1-12. doi: 10.1371/journal.pone.0150664

Elo, S., Kaariainen, M., Kanste, O., Polkki, T., Utriainen, K., & Kyngas, H. (2014). Qualitative content analysis: A focus on trustworthiness. *SAGE Open,* January-March, 1-10. doi: 10.1177/2158244014522633

Engel, G. L. (1977). The need for a new medical model: A challenge for biomedicine. *Science, 196*, 129-136.

Engel, G. L. (1980). The clinical application of the biopsychosocial model. The *American Journal of Psychiatry, 137*(5), 535-544. doi: 10.1176/ajp.137.5.535

Englander, M. (2012). The Interview: Data collection in descriptive phenomenological human scientific research. *Journal of Phenomenological Psychology, 43*, 13-35. doi: 10.1163/156916212X632943

Enmarker, I., Hellzen, O., Ekker, K., & Berg, A. (2012). Health in older cat and dog owners: The Nord-Trondelag health study (HUNT)-3 study. *Scandinavian Journal of Public Health, 40*, 718-724. doi: 10.1177/1403494812465031

Epstein, R. M. (2014). Realizing Engel's biopsychosocial vision: Resilience, compassion, and quality of care. *International Journal Psychiatry in Medicine, 47(*4), 275-287. doi: dx.doi.org/10.2190/PM.47.4.b

Everitt, A., & Meites, J. (1989). Aging and anti-aging effects of hormones. *Journal of Gerontology, 44B,* 139-147. doi: 10.1093/geronj/44.6/B139

Federal Interagency Forum on Aging-Related Statistics (2016). Key indicators of well being for older Americans. 1-204. doi: 10.1080/15398285.2013.756760 Retrieved from https://agingstats.gov/docs/LatestReport/Older-Americans-2016-Key-Indicators-of-WellBeing.pdf

Feng, Z., Dibben, C., Witham, M. D., Donnan, P. T., Vadiveloo, T., Sniehotta, F., Crombie, I. K., McMurdo, M., E. (2014). Dog ownership and physical activity in later life: A cross-sectional observational study. *Preventive Medicine, 66,* 101-106. doi: 10.1016/j.pmed.2014.06.004

Field, N. P., Orsini, L., Gavish, R., & Packman, W. (2009). Role of attachment in response to pet loss. *Death Studies, 33,* 334-355. doi: 10.1080/07481180802705783

Fields, N.L., Anderson, K. A., Dabelko-Schoeny, H. (2014). The effectiveness of adult day services for older adults: A review of the literature from 2000-2011. *s*(2), 130-163. doi: 10.1177/0733464812443308

Finlay, L. & Molano-Fisher, P. (2008). "Transforming" self and world: A phenomenological study of a changing lifeworld following a cochlear implant. *Medicine, Health Care and Philosophy, 11*(3), 255-267.

Finlay, L. (2009). Exploring lived experience: Principles and practice of phenomenological research. *International Journal of Therapy and Rehabilitation, 16*, 9, 474-481.

Friedmann, E., & Son, H. (2009). The human-companion animal bond: How humans benefit. *Veterinary Clinics of North America, 39*(2), 293-326. doi: 10.1016/j.cvsm.2008.10.015

Gana, K., Saada, Y., Trouillet, R., Bailly, N., Joulain, M., Herve, C., & Alaphilippe, D. (2013). Relationship between life satisfaction and physical health in older adults: A longitudinal test of cross-lagged and simultaneous effects. *Health Psychology, 32*(8), 896-904. doi: 10.1037/a0031656

Gavrilov, L. A., & Gavrilova, N. S. (2002). Evolutionary theories of aging and longevity. *Journal of Theoretical Biology, 213,* 339-356.

Gine-Garriga, M., Roque-Figuls, M., Coll-Planas, L., Sitja-Rabert, M., & Salva, A. (2014). Physical exercise interventions for improving performance-based measures of physical function in community-dwelling, frail older adults: A systematic review and meta-analysis. *Archives of Physical Medicine and Rehabilitation, 95,* 753-769. doi: 10.1016/j.apmr.2013.11.007

Giorgi, A. (1989). One type of analysis of descriptive data: Procedures involved in following a phenomenological method. *Methods, 1*, 39-61.

Giorgi, A. (1997). The theory, practice, and evaluation of the phenomenological method as a qualitative research procedure. *Journal of Phenomenological Psychology, 28*(2), 235-260.

Giron, P. (2012). Is age associated with self-rated health among older people in Spain? *Central European Journal of Public Health, 20*(3), 185-190.

Goldacre, M. J., Roberts, S. E., & Yeates, D. (2002). Mortality after admission to hospital with fractured neck of femur: Database study. *BMJ, 325*(7369), 868-869.

Grant, N., Hamer, M., & Steptoe, A. (2009). Social isolation and stress-related cardiovascular, lipid and cortisol responses. *Annals of Behavioral Medicine, 37,* 29-37. doi: 10.1007/s12160-009-9081-z

Guzman, A., Cucueco, D. S. Cuenco, I. B., Cunanan, N. G., Dabandan, R. T., & Dacanay, E. J. (2009). Petmanship: Understanding elderly Filipinos' self-perceived health and self esteem captured from their lived experiences with pet companions. *Educational Gerontology, 35*, 963-989.

Hagan, R., Manktelow, R., Taylor, B. J., & Mallett, J. (2014). Reducing loneliness amongst older people: A systematic search and narrative review. *Aging and Mental Health, 18(*6), 683-693. doi: 10.1080/13607863.2013.875122

Hand, C., Law, M., McColl, M. A., Hanna, S., & Elliott, S. (2014). An examination of social support influences on participation for older adults with chronic health conditions. *Disability and Rehabilitation, 36*(17), 1439-1444. doi: 10.3109/09638288.2013.845258

Hayslip, B., & Cooper, A. M. (2012). Subjective and objective intellectual change in older adults. *Educational Gerontology, 38*, 190-200. doi: 10.1080/03601277.2010.532069

Heinrich, S., Rapp. K., Rissmann, U., Becker, C., & Konig, H. H. (2010). Costs of falls in old age: A systematic review. *Osteoporosis International, 21*(6), 891-902. doi: 10.1007/s00198-009-1100-1

Henchoz, K., Cavalli, S., & Girardin, M. (2008). Health perception and health status in advanced old age: A paradox of association. *Journal of Aging Studies, 22,* 282-290. doi: 10.1016/j.aging.2007.03.002

Henningsen, P. (2015). Still modern? Developing the biopsychosocial model for the 21st century. *Journal of Psychosomatic Research, 70,* 362-363. doi: 10.1016/j.jpsychores.2015.09.003

Herzog, H. A. (2007) Gender differences in human-animal interactions: A review. *Anthrozoos, 20,* 7-21. doi: 10.2752/089279307780216687

Herzog, H. A. (2011). The impact of pets on human health and well-being. Fact, fiction, or hypothesis? *Current Directions in Psychological Science, 20*, 28-34. doi: 10.1177/0963721411415220

Hofmann, S. G., Asnaani, A., Vonk, I. J., Sawyer, A. T., & Fang, A. (2012). The efficacy of cognitive behavioral therapy: A review of meta-analyses. *Cognitive Therapy Research, 36,* 427-440. doi: 10.1007/s10608-012-9476-1

Homnick, T. D., Henning, K. M., Swain, C. V., & Honmick, D. N. (2015). The effect of therapeutic horseback riding on balance in community-dwelling older adults: A pilot study. *Journal of Applied Gerontology, 34*(1), 118-126. doi: 10.1177/0733464812467398

Hootman, J. M., Helmick, C. G., & Brady, T. J. (2012). A public health approach to addressing arthritis in older adults: The most common cause of disability. *American Journal of Public Health, 102,* 426-433. doi: 10.2105/AJPH.2011.300423

Hope, A. (2012). *Exploring the relationship between motivation and dog-walking behaviors: What motivates older adults to walk with their dogs?* (Doctoral Dissertation). Lakehead University, Orillia, Ontario, Canada.

Horowitz, S. (2008). The human-animal bond. *Alternative and complementary therapies, 14*(5), 251-259. doi: 10.1089/act.2008.14505

Huss, R. J. (2014). Re-evaluating the role of companion animals in the era of the aging boomer. *Akron Law Review, 47*(2), 1-54.

Johansson, M., Ahlstrom, G., Jonsson, A. (2014). Living with companion animals after stroke: Experiences of older people in community and primary care nursing. *British Journal of Community Nursing, 19*(12), 578-584.

Julius, H., Beetz, A., Kotrschal, K., Turner, D., & Uvnas-Moberg, K. (2013). *Attachment to Pets: An Integrative View of Human-Animal Relationships with Implications for Therapeutic Practice.* USA: Hogrefe Press:

Jylha, M. (2009). What is self-rated health and why does it predict mortality? Towards a unified conceptual model. *Social Science and Medicine, 69,* 307-316. doi: 10.1016/j.socscimed.2009.05.013

Kamioka, H., Okada, S., Tsutani, K., Park, H., Okuizumi, H., Handa, S., Oshio, T., Park, S., Kitayuguchi, J., Abe, T., Honda, T., & Mutoh, Y. (2014). Effectiveness of

animal-assisted therapy: A systematic review of randomized controlled trials. *Complementary Therapies in Medicine*, 1-20. doi: 10.1016/j.ctim.2013.12.016

Keefer, L., Landau, M., & Sullivan, D. (2014). Non-human support: Broadening the scope of attachment theory. *Social and Personality Psychology Compass, 8*(9), 524-535. doi: 10.1111/spc3.12129

Keegan, J. (2014). *"Calm or Chaos": Assessing the human-animal bond and its relationship in our lives.* (Doctoral Dissertation). DBS School of Arts, Dublin.

Kharicha, K., Iliffe, S., Harari, D., Swift, C., Gillmann, G., & Stuck, A. E. (2007). Health risk appraisal in older people: Are older people living alone an 'at risk' group? *British Journal of General Practice, 57,* 261-267.

Kolling, T., & Knopf, M. (2014). Late life human development: Boosting or buffering universal biological aging. *GeroPsych, 27*(3), 103-108. doi: 10.1024/1662.9647/a000108

Krause-Parello, C. A. (2012). Pet ownership and older women: The relationships among loneliness, pet attachment support, human social support, and depressed mood. *Geriatric Nursing, 33*(3), 194-203. doi: 10.1016/j.gerinurse.2011.12.005

Krause-Parello, C A., & Gulick, E. E. (2013). Situational factors related to loneliness and loss over time among older pet owners. *Western Journal of Nursing Research, 35*(7), 905-919. doi: 10.1177/0193945913480567

Kuhl, G. (2011). Human-sled dog relations: What can we learn from the stories and experiences of mushers? *Society and Animals, 19,* 22-37. doi: 10.1163/156853011X545510

Kurdek, L. A. (2008). Pet dogs as attachment figures. *Journal of Social and Personal Relationships, 25*(2), 247-266. doi: 10.1177/0265407507507087958

Kurrle, S. E., Day, R., & Cameron, I. D. (2004). The perils of pet ownership: A new fall-injury risk factor. *Medical Journal of Australia, 181*(11), 682-683.

Lang, F. R., Wagner, J., Wrzus, C., Neyer, F. J. (2013). Personal effort in social relationships across adulthood. *Psychology and Aging, 28*(2), 529-539. doi: 10.1037/a0032221

Leinonen, R., Heikkinen, E., & Julha, M. (2001). Predictors of decline in self-assessments of health among older people: A 5-year longitudinal study. Social Science and Medicine, 52(9), 1329-1341. doi: 10.1016/S0277-9536(00)00249-5

Levine, G. N., Allen, K., Braun, L. T. Christian, H. E., Friedmann, E., Taubert, K. A.,…& Lang, R. A. (2013). Pet ownership and cardiovascular risk: A scientific statement from the American Heart Association. *Circulation, 127*(23), 2353-2363. doi: 10.1161/CIR.0b13e1829201e1

Lowry, K. A. Vallejo, A. N., & Studenski, S. A. (2012). Successful aging as a continuum of functional independence: Lessons from physical disability models of aging. *Aging and Disease, 3*(1), 5-15.

Lyyra, T. M., Leskinen, E., & Heikkinen, E. (2009). Self-rated health and mortality in older men and women: A time-dependent covariate analysis. *Archives of Gerontology and Geriatrics, 48,* 14-18. doi: 10.1016/j.archger.2007.09.004

Machon, M., Vergara, I., Dorronsoro, M., Vrotsou, K., & Larranaga, I. (2016). Self-perceived health in functionally independent older people: Associated factors. *BMC Geriatrics, 16*(66), 1-9. doi: 10.1186/s12877-016-0239-9

Markle-Reid, M., Browne, G., Gafni, A., Roberts, J., Weir, R., Thabane, L., Miles, M., Vaitonis, V., Hecimovich, C., Baxter, P., & Henderson, S. (2010). The effects and costs of a multifactorial and interdisciplinary team approach to falls prevention for older home care clients 'At risk' for falling: A randomized controlled trial. *Canadian Journal on Aging, 29*(1), 139-161. doi: 10.1017/S0714980809990377

Martin, A. S., Palmer, B. w., Rock, D., Gelston, C. V., & Jeste, D. V. (2015). Associations of self-perceived successful aging in young-old versus old-old adults. *International Psychogeriatrics, 27*(4), 601-609. doi: 10.1017/S104161021400221X

Matteliano, D., St. Marie, B., Oliver, J., & Coggins, C. (2014). Adherence monitoring with chronic opioid therapy for persistent pain: A biopsychosocial-spiritual approach to mitigate risk. *Pain Management Nursing, 15*(1), 391-405. doi: 10.1016/j.pmn.2012.08.008

Maxwell, J. A. (2013). *Qualitative Research Design*. (3rd Ed.). Thousand Oaks, California. USA: Sage Publications.

McConnell, A. R., Brown, C. M., Shoda, T. M., Stayton, L. E., & Martin, C. E. (2011). Friends with benefits: On the positive consequences of pet ownership. *Journal of Personality and Social Psychology, 101,* 1239-1252. doi: 10.1037/a0024506

Means, K. M., Rodell, D. E., O'Sullivan, P. S. (2005). Balance, mobility, and falls among community dwelling elderly persons: Effects of a rehabilitation exercise program. *American Journal of Physical Rehabilitation, 84*, 238-250.

Meijia, S. T., & Hooker, K. (2013). Social regulatory processes in later life: A web-based microlongitudinal study. *Psychology and Aging, 28*(3), 864-874. doi: 10.1037/a0032474

Melendez, J. C., Tomas, J. M., Oliver, A., & Navarro, E. (2009). Psychological and physical dimensions exploring life satisfaction among the elderly: A structural model examination. Archives of Gerontology and Geriatrics, 48, 291-295. doi: 10.1016/j.archger.2008.02.008

Miller, G., Chen, E., & Cole, S. W. (2009). Health psychology: Developing biologically plausible models linking the social world and physical health. *Annual Review of Psychology, 60*, 501-524. doi: 10.1146/annurev.psych.60.110707

Miller, J. C., & Krizan, Z. (2016). Walking facilitate positive affect (even when expecting the opposite. *Emotion, 16*(5), 775-785. doi: 10.1037/a0040270

Miles, M. B., Huberman, A. M., & Saldana, J. (2014). *Qualitative Data Analysis: A Methods Sourcebook.* (3rd Ed.). Sage Publications Inc. USA.

Motooka, M., Koike, H., Yokoyama, T., & Kennedy, N. L. (2006). Effect of dog-walking on autonomic nervous activity in senior citizens. *Medical Journal of Australia, 184*(2), 60-64.

Moustakas, C. (1994). *Phenomenological Research Methods.* Thousand Oaks, California. USA: Sage Publications.

National Institutes of Health (2010). Fact Sheet: Disability in Older Adults. Retrieved from https://report.nih.gov/nihfactsheets/Pdfs/DisabilityinOlderAdults(NIA).pdf

Nelson, H. L. (2015). *Recovery from severe mental illness: How feline companions facilitate the process of healing.* Doctoral Dissertation. The Wright Institute Graduate School of Psychology.

Novack, D. H., Suchman, A. L., Clark, W., Epstein, R. M., Najberg, E., & Kaplan, C. (1997). Calibrating the physician: Personal awareness and effective patient care. *JAMA, 278*, 502-509. doi: 10.1001/jama.1997.03550060078040

Pachana, N. A., Ford, J. H., Andrew, B., & Dobson, A. J. (2005). Relations between companion animals and self-reported health in older women: Cause, effect or artifact? *International Journal of Behavioral Medicine, 12*(2), 103-110. doi: 10.1207/s15327558ijbm1202_8

Pang, M. Y., Eng, J. J., & Miller, W. C. (2007). Determinants of satisfaction with community reintegration in older adults with chronic stroke: Role of balance self-efficacy. *Physical Therapy, 87*(3), 282-291. doi: 10.1111/j.1467-9639-1991.tb0016

Pahor, M., Guralnik, J. M., Ambrosius, W. T., Blair, S., Bonds, D. E., Church, T. S., Espeland, M.A., Fielding, R. A., Gill, T., Groessi, E. J., King, A. C., Kritchesky, S., Manini, T., McDermott, M.M., Miller, M.E., Newman, A. B., Rejeski, J., Sink, K., & Williamson, J. D. (2014). Effect of structured physical activity on prevention of major mobility disability in older adults. *Journal of the American Medical Association, 311*(23), 2387-2396. doi: 10.1001/jama.2014.5616

Patel, K. V., Guralnik, J. M., Dansie, E. J. & Turk, D. C. (2013). Prevalence and impact of pain among older adults in the United States: Findings from the 2011 National Health and Aging Trends Study. *Pain, 154*(12), 1-22. doi: 10.1016/j.pain.2013.07.029

Patton, M. Q. (2015). *Qualitative Research and Evaluation Methods*. (4th Ed.). Thousand Oaks, California: Sage Publications.

Payne, E., DeAraugo, J., Bennett, P., & McGreevy, P. (2015). Exploring the existence and potential underpinnings of dog-human and horse-human attachment bonds. *Behavioral Processes,* 1-8. doi: 10.1016/j.beproc2015.10.004

Peacock, J., Chur-Hansen, A., & Winefield, H. (2012). Mental health implications of human attachment to companion animals. *Journal of Clinical Psychology, 68*(3), 292-303. doi: 10.1002/jclp.20866

Penninx, B., Kritchevsky, S. B., Yaffe, K., Newman, A. B., Simonsick, E. M., Rubin, S.,,,et al. (2003). Inflammatory markers and depressed mook in older persons: Results from the health, aging and body composition study. Biological Psychiatry, 54, 566-572. doi: 10.1016/S0006-3223(03)01811-5

Pereira, C., Baptista, F., & Infante, P. (2014). Role of physical activity in the occurrence of falls and fall-related injuries in community-dwelling adults over 50 years old. *Disability and Rehabilitation, 36*(2), 117-124. doi: 10.3109/09638288.2013.782355

Pikhartova, J., Bowling, A. & Victor, C. (2014). Does owning a pet protect older people against loneliness? *BMC Geriatrics, 14,* 106-121. doi: 10.1186/1471-2318-14-106

Pino, L., Gonzales-Velez, A., Prieto-Flores, M., Ayala, A., Fernandez-Mayoralas, G., Rojo-Perez, F., Martinez-Martin, P., & Forjaz, M. J. (2014). Self-perceived health and quality of life by activity status in community-dwelling older adults. *Geriatrics and Gerontology International, 14*(2), 464-473. doi: 10.111/ggi.12119

Pohnert, T. S. (2010). *The effect of pet ownership on physical well-being in older adults.* (Doctoral Dissertation). Virginia Commonwealth University, Virginia, USA.

Putney, J. M., (2012). *"Souldog": The Perceived Impact of Companion Animals on Older Lesbian Adults.* (Doctoral Dissertation). Simmons College School of Social Work, Boston, MA. USA.

Reeves, M. J., Rafferty, A. P., Miller, C. E., & Lyon-Callo, S. K. (2011). The impact of dog walking on leisure-time physical activity: Results from a population-based survey of Michigan Adults. *Journal of Physical Activity and Health, 8*(3), 436-444.

Rijken, M., & Van Beek, S. (2011). About cats and dogs. Reconsidering the relationship between pet ownership and health related outcomes in community-dwelling elderly. *Soc Indic Research, 102*, 373-388. doi: 10.1007/s11205-010-9690-8

Rius-Ottenheim, N., Kromhout, D., Van der Mast, R., Zitman, F. G., Geleijnse, J. M., & Giltay, E. J. (2012). Dispositional optimism and loneliness in older men.

International Journal of Geriatric Psychiatry, 27(2), 151-159. doi: 10.1002/gps.2701

Robinson, L., Newton, J. L., Jones, D., & Dawson, P. (2014). Self-management and adherence with exercise-based falls prevention programmes: A qualitative study to explore the views and experiences of older people and physiotherapists. *Disability and Rehabilitation, 36*(5), 379-386. doi: 10.3109/09638288.2013.797507

Ruzic, A., Miletic, B., Ruzic, T., Persic, V., & Laskarin, G. (2011). Regular dog-walking improves physical capacity in elderly patients after myocardial infarction. *Colegium Antroplogicum 35*(2), 73-75.

Sable, P. (2013). The pet connection: An attachment perspective. Clinical Social Work Journal, 41. 93-99. doi: 10.1007/s106150120405-2

Sacher, G. A. (1982). Evolutionary theory in gerontology. *Perspectives in Biology and Medicine, 25,* 339-353. doi: 10.1353/pbm.1982.0050

Sakakibara, B. M., Miller, W. C., Routhier, F., Backman, C. L., & Eng, J. J. (2014). Influences of wheelchair-related efficacy on life space mobility on adults who use a wheelchair and live in the community. *Physical Therapy, 94*(5), 664-674.

Scheibeck, R., Pallauf, M., Stellwag, C., & Seeberger, B. (2011). Elderly people in many respects benefit from interaction with dogs. *European Journal of Medical Reseach, 16*, 557-563. doi: 10.1186/2047-783X-16-12-557

Segal, D. L., Needham, T. N., & Coolidge, F. L. (2009). Age differences in attachment orientations among younger and older adults: Evidence from two self-report

measures of attachment. *International Journal of Aging and Human Development, 69*(2), 119-132. doi: 10.2190/AG.69.2.c

Shankar, A., McMunn, A., Banks, J., & Steptoe, A. (2011). Loneliness, social isolation, and behavioral and biological health indicators in older adults. *Health Psychology, 30*(4), 377-385. doi: 10.1037/a0022826

Shoemake, E. G. (2010). *The role of attention, attitude, culture, and social expectancies in the Human-Animal-Bond: A Biopsychosocial Approach*. Doctoral Dissertation. University of Central Oklahoma.

Silcox, D., Castillo, Y.A., & Reed, B.J. (2014). The human animal bond: Applications for rehabilitation professionals. *Journal of Applied Rehabilitation Counseling, 45*(3), 27-37.

Smith, J. M. (2012). Toward a better understanding of loneliness in community-dwelling older adults. *The Journal of Psychology, 146*(3), 293-311. doi: 10.1080/00223980.2011.602132

Smith, R. C., Fortin, A. H., Dwamena, F., & Frankel, R. M. (2013). An evidence-based patient-centered method makes the biopsychosocial model scientific. *Patient Education and Counseling, 91*(3), 265-270. doi: 10.1016/j.pec.2012.12.010

Smolkovic, I., Fajfar, M., & Mlinaric, V. (2012). Attachment to pets and interpersonal relationships. *Journal of European Psychology Students, 3*, 15-23. doi: 10.5334/jeps.ao

Stanley, I. H., Conwell, Y., Bowen, C., Van Orden, K. A. (2014). Pet ownership may attenuate loneliness among older adult primary care patients who live alone. *Aging & Mental Health, 18*(3), 394-399. doi: 10.1080/13607863.2013.837147

Stadtlander, L. M. (2015). *Finding Your Way to a Phd: Advice from the Dissertation Mentor.* CreateSpace Publishing.

Suls, J., Krantz, D. S., & Williams, G. C. (2013). Three strategies for bridging different levels of analysis and embracing the biopsychosocial model. *Health Psychology, 32*(5), 597-601. doi: 10.1037/a0031197

Thompson, K. (2013). Save me, save my dog: Increasing natural disaster preparedness and survival by addressing human-animal relationships. *Australian Journal of Communication, 40*(1), 123-136.

Tobias, J. H., Gould, V., Brunton, L., Deere, K., Rittweger, J., Lipperts, M., & Grimm, B. (2014). Physical activity and bone: May the force be with you. *Frontiers in Endocrinology, 5,* 1-5. doi: 10.3389/fendo.2014.00020

Tracy, S. J. (2013). *Qualitative Research Methods: Collecting Evidence, Crafting Analysis, Communicating Impact.* USA. United Kingdom: Wiley-Blackwell Publications.

Turvey, C. L., Conwell, Y., Jones, M. P., Phillips, C., Simonsick, E., & Pearson, J. L. (2002). Risk factors for late-life suicide: A prospective community-based study. *American Journal of Geriatric Psychiatry, 10*(4), 398-406. doi: 10.1097/00019442-200207000-00006

Uchino, B. N. (2006). Social support and health: A review of physiological processes potentially underlying links to disease outcomes. *Journal of Behavioral Medicine, 29*(4), 377-387. doi: 10.1007/s10865-006-9056-5

U.S. Pet Ownership and Demographics Sourcebook (2012). American Veterinary Medical Association.

United States Census Bureau (2010). The older population: 2010. Retrieved from https://www.census.gov/prod/cen2010/briefs/c2010br-09.pdf

Van Assche, L., Luyten, P., Bruffaerts, R., Persoons, P., Van de Ven, L., Vandenbulke, M. (2013). Attachment in old age: Theoretical assumptions, empirical findings and implications for clinical practice. *Clinical Psychology Review, 33,* 67-81. doi: 10.1016/j.cpr.2012.10.003

Van der Mussele, Le Bastard, N., Vermeiren, Y., Saerens, J., Somers, N., Marien, P., Goeman, J., De Deyn, P., & Engelborghs, S. (2013. Behavioral symptoms in mild cognitive impairment as compared with Alzheimers' disease and health in older adults. *International Journal of Geriatric Psychiatry, 28*, 265-275. doi: 10.1022/gps.3820

Von Bertalanffy, L. (1968). *General System Theory as Integrating Factor in Contemporary Science an in Philosophy.* International Center for Integrative Studies.

Walsh, F. (2009a). Human-animal bonds 1: The relational significance of companion animals. *Family Process 48*(4). 462-480. doi: 10.1111/j.1545-5300.2009.01296.x

Walsh, F. (2009b). Human-animal bonds 2: The role of pets in family systems and family therapy. *Family Process, 48*(4), 481-499. doi: 10.1111/j.1545-5399.2009.01297.x

Wan, H., & Larsen, L. J. (2014). Older Americans with a disability: 2008-2012. American Community Survey Reports, ACS-29. American Community Survey Reports, ACS-29 (December). Retrieved from https://www.census.gov/content/dam/Census/library/publications/2014/acs/acs-29.pdf

Warsch, J.R., & Wright, C.B. (2010). The aging mind: Vascular health in normal cognitive aging. *The American Geriatrics Society, 58,* 319-324. doi: 10.1111.j.1532.5415.2010.02983.x

Wells, D. L. (2009). The effects of animals on human health and well-being. *Journal of Social Issues, 65*(3), 523-543. doi: 10.1111/j.1540-4560.2009.01612.x

Wong, E., Backholer, K., Gearon, E., Harding, J., Freak-Poli, R., Stevenson, C., & Peeters, A. (2013). Diabetes and risk of physical disability in adults: A systematic review and meta-analysis. *Lancet Diabetes Endocrinol, 1,* 106-114. doi: 10.1016/S2213-8587(13)70046-9

World Health Organization Ageing & Life Course Unit (2008). *WHO Global Report on Falls Prevention in Older Age.* World Health Organization. Retrieved from http://www.who.int/ageing/publications/Falls_prevention7March.pdf

World Health Organization (2011). Global health and aging. Retrieved from http://www.who.int/ageing/publications/global_health.pdf

World Health Organization (2015). Mental health and older adults. Retrieved from http://www.who.int/mediacentre/factsheets/fs381/en/

World Health Organization (2016). Ageing and Health. Retrieved from http://www.who.int/mediacentre/factsheets/fs404/en/

Wrobel, T. A., & Dye, A. L. (2003). Grieving pet death: Normative, gender, and attachment issues. *Omega, 47,* 385-393.

Zheng, R., Spears, J., Luptak, M., & Wilby, F. (2015). Understanding older adults' perceptions of Internet use: An exploratory factor analysis. *Educational Gerontology, 41*, 504-518. doi: 10.1080/03601277.2014.1003495

Zilcha-Mano, S., Mikulincer, M., & Shaver, P. R. (2012). Pets as safe havens and secure bases: The moderating role of pet attachment orientations. *Journal of Research in Personality, 46,* 571-580. doi: 10.1016/j/jrp.2012.06.005

Zottarelli, L. (2010). Broken Bond: An exploration of human factors associated with companion animal loss during hurricane Katrina. *Sociological Forum, 25*(1), 110-124. doi: 10.1111/j.1573-7861.2009.01159.x

Appendix A: Flyer

RESEARCH STUDY!

I am seeking participants for a study examining *The Relationships of Older Physically Impaired Males and Their Pets.*

Who can volunteer?

Older males (70+) who live alone or in assisted living, who suffer some physical impairment (arthritis in the hip or knee, or other mobility problems) who are also pet owners.

Why would you participate?

To contribute to research about a subject that has not been previously explored. The study's goal is to have a better understanding of the lived experiences of older men and their companion animals.

Other important information.

The interview will take place in the way you are most comfortable. We can meet in a public place convenient to you, or I can speak to you on the telephone. Video conferencing (Skype, Facetime) is another possibility. The interview is conducted in English and will take between 30-60 minutes.

How do I volunteer? Contact Jenny Williams at 818-xxx-xxxx

Or email at:

Jenniferhugheswilliams.waldenu.edu

Appendix B: Facebook Advertisement

Volunteers Needed!

My name is Jenny Williams and I am currently writing a dissertation as part of a Ph.D. in Health Psychology at Walden University. I've always had a passion for both older adults and animals and I thought it would be interesting to study the **Relationships older men who suffer some physical impairment (arthritis in the hip or knee, or other mobility problems) have with their pets.** I need to recruit 10 older men (65+) who suffer some physical impairment like arthritis or a mobility problem. All of these men must live alone in the community or in assisted living. And all of these men must be pet owners.

I will do a 30-60 minute interview about the relationship they have with their animal(s). I'm interested to see how the relationship affects the physical, psychological, and social life of the older male.

Do you know anyone who may be interested in participating in the study?

Do you think any of your family or friends may know of someone who may be interested in participating in the study? Please share this message with your friends

I can be reached by email at jenniferhugheswilliams@waldenu.edu

or by phone: 818-xxx-xxxx. **Thanks for your time! Jenny.**

Appendix C: Interview Questions

DEMOGRAPHICS	What is your age? What is your race? What is your education level? Do you live alone? Does your physical impairment qualify you for a DMV Handicapped placard? What are your daily activities? (Prompts: House cleaning, shopping, personal care, work) Does anyone help you with your daily activities and routines? What kind of pet do you have? What does your pet look like? How long have your owned your pet? How old is your pet?

RESEARCH QUESTIONS 1. RQ1- Qualitative: What are the relationships that older physically impaired males have with their pets?	INTERVIEW QUESTIONS 1) How would you describe the nature of the relationship you have with your pet? (Prompt: For example, do you consider your pet to be a companion?) 2) What physical challenges do you face caring for your animal? 3) Take me through a typical day with your pet. (Prompts: Does your pet wake you up? What kinds of activities do you do with your pet?) 4) How do you deal with your pet's medical needs? 5) What are the most positive things about owning your pet? 6) What are the most negative things about

	owning your pet? 7) If someone of your age and physical condition told you he was considering getting a pet, what advice would you give him?
2. RQ2- What are the lived experiences of older physically impaired men regarding how their animal companions influence physical, psychological, and social health?	8) How does your pet influence your physical health? (Prompt: Does your pet motivate you to exercise?) 9) How does your pet influence your moods? (Prompt: How does your pet act when you're sad or angry?) 10) How does your pet influence your social health? (Prompt: Does your pet fit into your social activities? Do you use social media to post pictures of your pet?)

Appendix D: Resources

The Institute on Aging's Senior's Friendship Line.
Talk to Someone Now! 800-971-0016

The Institute on Aging is committed to servicing the needs of the older adult. The Institute on Aging provides other services beyond telephone support. Please call the number above or visit their website at: https://www.ioaging.org/services.

California Senior Legal Hotline 323-801-7991

Contact Helpline for Emotional Support 800-932-4616

The Maple Counseling Center 310-271-9999
Low-fee group therapy for older adults

Senior Meal Delivery 310-935-3877

Veterinary Care at Home 855-583-8833

National Suicide Prevention Crisis Line 800-273-8255