The Influence of Pets on Decisions of Older Adults' with Chronic Conditions

by

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"Dream the impossible dream." I dedicate this dissertation to my mother, Christina, who had compassion for all animals, to my father Steve, who always saw the best in the worst circumstances, and to my brother Simon, who loved with all his heart. I also dedicate this to all the former and current animals in my life.

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ABSTRACT

Many older adults view pets as companions, and are responsible for their pet's care and well-being. Research suggests that people prioritize their pet's needs, although it may jeopardize their own safety. Some older adults forego, delay, or refuse care in order to remain with their pet. In this study I used constructivist grounded theory to explore and describe the influence of pets on older adults' decision making and chronic-condition management. I conducted semistructured individual interviews with community-dwelling adults (N = 20) aged 60 or older who had at least one chronic disease and who were living with a pet. Participants were asked questions about their relationship with pets, decision making, chronic-disease management, and pets' influence on these processes. An inductive/abductive data analysis process incorporated constant-comparative analysis, coding, categorizing, and early theorizing. A grounded theory framework, *Filling the Empty Spaces: A theory of older adults' human–animal interactions*, illuminates pet influences on the decisions of older adults managing chronic conditions. Three emergent analytic categories were identified: *managing responsibility*—being committed to the pet to the extent that it influences one's housing, travel, spending, and/or socializing choices; *remaining independent*—adapting activities to compensate for physical restrictions and chronic-disease limitations; *impacting well-being*—engaging with the pet and being motivated by the pet in health behaviors and well-being. This theoretical framework is useful to uncover intentions and strategies to remain living independently while caring for a pet, and to explore how to leverage the human–animal relationship to support health behaviors that positively impact health and well-being.

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CHAPTER 1: INTRODUCTION

Pets are part of life for many older adults, including those with chronic conditions. Human–animal relationships can be mutually beneficial to the health and well-being of both creatures (American Veterinary Medical Association, 2017). Older adults living with pets may experience physical and psychological health benefits (McColgan & Schofield, 2007). People with pets accept protective responsibility to care for them by providing basic needs such as food, water, and shelter. These responsibilities often provide older adults with a sense of purpose and meaning; however, the reciprocity of the human–animal relationship and the responsibility to the pet may result in prioritizing the well-being of the pet over one's own well-being, and have a negative impact on one's own health. It is important for health professionals such as nurses, physicians, and social workers to inquire if people have pets, and how their pets may influence their decisions.

Background

A growing body of evidence supports the benefits of animals on physical and psychological human health conditions. The National Institutes of Health (NIH, 2009) and the American Heart Association (AHA; Levine et al., 2013) endorse pet-related health benefits such as decreased blood pressure and increased physical activity, reduced mortality 1 year after a heart attack (Friedmann, Katcher, Lynch, & Thomas, 1980), decreased autonomic cardiac response (Aiba et al., 2012), and possible reduction in cardiovascular disease risk (Levine et al., 2013). Other health benefits include decreased stress and loneliness (Krause-Parello, 2008, 2012), increased well-being (Scheibeck, Pallauf, Stellwag, & Seeberger, 2011), and increased social connectedness (Bonas,

McNicholas, & Collis, 2000). Older adults, in particular, may benefit from living with pets. This is promising, as common chronic conditions such as heart disease, cancer, stroke, diabetes, and arthritis are a significant economic burden on the healthcare system, consuming 86% of all healthcare expenditures (Centers for Disease Control and Prevention [CDC], 2017).

Eighty percent of older adults have at least one chronic condition, while 50% have at least two chronic conditions (CDC, 2017). The population of adults aged 65 and older is expected to reach 71 million by 2030 (CDC, 2016). In the United States, it is estimated that between 32% and 54% of older adults have a pet (American Pet Products Association, 2017; Keenan, 2010).

A majority of older adults live with chronic conditions, and they need to make healthcare decisions to manage those conditions almost every day. Decisions are influenced by several factors, including social factors such as family and friends, and pets are often considered family members (Bonas et al., 2000; Cain, 1983; Cohen, 2002; Gallant, 2003). Given that people live with pets and feel a sense of responsibility toward them, it is likely that pets would be an influential factor when making health decisions.

While there is a robust amount of research about health outcomes associated with animals, only three studies have directly examined the influences of pets on health decisions (Cohen, 2002; Friedmann, Katcher, & Meislich, 1983; Peacock, Chur-Hansen, & Winefield, 2012). Findings across these studies revealed that the influence of a pet could lead to health decisions that may have negative health outcomes; however, the articles reporting on these studies lacked detailed explanations as to *how* a pet was influential. Furthermore, to my knowledge, no research exists examining how pets

influence decisions of older adults managing chronic conditions, yet poor health decisions can increase the cost of chronic-condition care, and have adverse physical, mental, and social consequences (Harris & Wallace, 2012). Understanding how pets influence decision making could help inform the design of interventions for older adults with chronic conditions, leading toward improved health outcomes.

Significance

Decision making is a multidimensional and situation-specific process (Noone, 2002) with many influences. Health decisions can be influenced by friends or family, competing priorities, personal goals, or value preferences. The influence of family or friends may be direct or indirect (Rini et al., 2011). When a family member or friend offers an opinion about a decision, this is a *direct influence*. When the decision maker feels a sense of obligation to the family member or friend, and thus, makes a decision to meet that obligation, this is an *indirect influence*.

Older adults might also make decisions based on their overall general health. They may not be influenced by a disease-specific outcome, but instead consider health outcomes such as quality of life (Fried, McGraw, Agostini, & Tinetti, 2008) and independence (Fried, Tinetti, Agostini, Iannone, & Towle, 2011). When examining older adults' decision making, it is helpful to consider the influence of family or friends and the desire of the older adult to stay independent. Therefore, it can be assumed that some health-related decisions may not focus on improving disease-specific outcomes, but instead focus on quality-of-life outcomes and values. Furthermore, as their social network shrinks through the loss of a spouse or close friends, or their inability to socialize due to functional decline, pets may become a prominent source of social support. Meanwhile,

there are limited resources available for older adults who are solely responsible to meet the care needs of their pet (Manor, 1991). Given that many people consider their pet to be a family member or friend, and often feel a sense of obligation to take care of it, the pet could become an influence in decision making.

For three decades scholars have alluded to the influence of pets during decision making (Morley & Fook, 2005; Netting, Wilson, & New, 1987; Podberscek, 2006); however, specific research about how older adults with pets make decisions is limited. Anecdotal reports suggest that older adults with chronic conditions may forego or delay medical interventions to remain with, and care for, their pet (McKee, 1989; McNicholas et al., 2005; Morley & Fook, 2005; Netting et al., 1987). Research on decision making in other populations suggests that people may refuse interventions, which may adversely impact their pet, choosing instead to remain in perilous situations such as intimate partner violence (Ascione et al., 2007; Faver & Strand, 2003; Hardesty, Khaw, Ridgway, Weber, & Miles, 2013), homelessness (Singer, Hart, & Zasloff, 1995), and natural disasters (Rosenkoetter, Covan, Cobb, Bunting, & Weinrich, 2007). These perilous situations place both the human and the pet at risk for harm.

In addition to the paucity of research about how pets influence decision making in older adults, there is no specific theoretical framework to examine human–animal relationships (Blazina, Boyraz, & Shen-Miller, 2011). This also limits our understanding of pet-related influences on decision making, yet, theoretical frameworks are important for describing the meaning of interrelated concepts of a phenomenon (Smith & Liehr, 2008), and crucial to designing interventions (Glanz, Rimer, & Viswanath, 2008).

The purpose of this study was to broaden our understanding of human–animal

relationships by exploring and describing how pets influence the decisions of older adults managing chronic health conditions, thus leading to the development of a substantive grounded theory about the interrelated concepts of the human–animal relationship and decision making.

Given the number of older adults living with pets and the prevalence of chronic health conditions, it is important to explore and describe what influences pets have on the decisions of older adults managing chronic health conditions. By seeking to understand how a pet's influence might facilitate or hinder decisions, this research will offer a theoretical framework about the decisional process of older adults managing chronic health conditions and living with a pet. The framework can then be used to design interventions intended to maximize decisions leading to positive health outcomes and minimize decisions leading to negative health outcomes specific to older adults with pets.

Relevance to Nursing

Nurses view health from a holistic perspective, which requires them to understand patients' personal values, and for some pet owners it may include the relationship with their pet. Nurses are often privileged with contextual information about personal values; this could leverage that information to create a patient-centered plan of care. As such, nurses are a natural fit to uncover pet-related influences on health, and should be aware of those influences on decision making. Understanding these influences, nurses can assess for potential positive and negative consequences during the decision-making process.

By examining the relationship older adults have with their pets and how pets influence decision making, this study makes a significant contribution to nursing science, adding to what we already know about the correlates of pets on the health outcomes of

older adults. The study findings offer a deeper understanding of the meaning of the human–animal relationship and how this relationship influences an older adult's decision making while managing chronic health conditions.

Research Question

The following was the question I sought to answer with this research: *How are older adults who are managing chronic conditions influenced by their pet(s) when making decisions?*

Specific Aims

I used a constructivist grounded theory approach to access and understand meanings and decisional processes from the perspective of older adults managing chronic conditions. The aims of this study were to:

1. Describe how pets influence older adults' decision making; and
2. Develop an initial substantive grounded theory framework of the influence of pets on older adults' decision making.

My long-term goal is to design interventions to assist older adults managing chronic health conditions in making health decisions to maximize the benefits of the human–animal relationship while minimizing health decisions leading to negative health consequences. This study was the first step toward this goal. The overall significance of this study is the development a novel grounded theory framework about pet-related influences on the decisions of older adults managing chronic health conditions.

CHAPTER 2: LITERATURE REVIEW

In this chapter I review the relevant extant literature about human-animal interactions to synthesize what is known and what is unknown, describe important patterns, and identify strengths, weaknesses, and potential areas for exploration. I begin by defining key terms and concepts, and provide a historical overview about how animals have become recognized as beneficial to human health. I then provide a review of the extent research relevant to the human–animal relationship in the context of decision making in the following topical areas: the influence of pets in health behaviors, chronic conditions, and contexts impacting health such as intimate partner violence, homelessness, and natural disasters. I also review and critique attachment theory, a common theoretical framework used in human–animal interaction research. To conclude, I discuss the implications of the lack of a specific theory to inform this growing field of research.

Definitions of Key Terms

Human–animal studies are diverse, and include research about the impact of animal-assisted therapies, animal welfare, and the impact of living with pets. The following definitions for the human–animal bond, animal interactions, and human–animal relationships are provided to clearly frame the context for this chapter. *Pets,* also known as companion animals, are defined as domestic animals that live with or receive daily contact from their human counterparts and are kept for companionship (American Society for the Prevention of Cruelty to Animals [ASPCA], 2017).

The Human–Animal Bond

Over the years, the role of animals has evolved from being simple companions to

something more complex and intimate—as important and supportive members of the family (Bonas et al., 2000). Many people feel a special connection to their pet, often referred to as the human–animal bond (Blazina et al., 2011). *The human–animal bond* is defined as a relationship between people and animals, with mutual benefits affecting the health and well-being of both creatures through psychological, physical, and emotional interactions (American Veterinary Medical Association, 2017).

The human–animal bond is often used to describe the relationships humans have with their own pets, therapy animals, service animals, or animals in general. The broad definition of the human–animal bond does not distinguish between permanent interactions, when a pet or service animal lives with someone, or temporary interactions through animal-assisted therapies. Nor does the definition include a distinction about the purpose (companionship, therapy, or service) of the interaction with the animal.

Animal Interactions

In human–animal studies, it is important to differentiate when a domesticated animal (e.g., dog or cat) is acting as a pet, therapy animal, or service animal. Pets are animals that live with people, usually for pleasure. Assisted-therapy animals are usually pets, but are also specially trained to work in tandem with their human handler to provide therapy for other people. Service animals are specially trained to perform specific actions to help an individual in times of need. In all of these roles, the animal usually lives with a human and receives daily contact, but the purpose of the interaction may differ, and therefore the meaning of the relationship may differ.

Pets can undergo special training, with their human handler, to provide animal-assisted therapies or activities for other people (Pet Partners, n.d). These animal-assisted

therapy teams provide therapy for a variety of reasons, settings, and situations; for example, these teams provide temporary emotional support during crisis events (i.e., mass shootings; HOPE Animal-Assisted Crisis Response, n.d.), or visit people in the hospital to encourage walking (Cole, Gawlinski, Steers, & Kotlerman, 2007). After providing therapy, these teams go home and the animal resumes its role as a pet.

In contrast to keeping animals as pets, animals can be specially trained as service animals. Service animals are individually trained to do work or perform tasks for the benefit of an individual with a physical, sensory, or mental (psychiatric or intellectual) disability (Americans with Disabilities Act, 2011). For example, guide dogs are trained to live with people who are blind and need assistance so the individual can live independently (Guide Dogs for the Blind, 2017), or a dog could be specially trained to warn a person about physiologic episodes such as seizures (Kirton, Winter, Wirrell, & Snead, 2008) or hypoglycemia (Rooney, Morant, & Guest, 2013).

Human–Animal Relationships

Human–animal relationships can be dyadic. The human provides basic needs (food, water, and shelter) to their pet. The animal fulfills the role of companion and engages daily with the human. The relationship with a pet can last several years, and relationships with various pets can span a lifetime. For older adults living with pets, the human–animal bond could be defined as a relationship that mutually enhances well-being through companionship and care. This dissertation will focus on older adults and their pets, and the influence that relationship has on older adults' decision making.

Literature Review

The Timing of the Literature Review in Grounded Theory

There is a debate about when a literature review should be conducted in a grounded theory study. On one side of the debate, Barney Glaser and Anselm Strauss (1967) suggested delaying the literature review until data collection is underway so that the researcher is not biased, thus allowing his or her own analysis to emerge uninfluenced by existing ideas. The literature should be reviewed after the categories have emerged. On the other hand, conducting a literature review before data collection is recommended because of the requirements of dissertation committees, funding agencies, and ethics boards (Bryant & Charmaz, 2007). Furthermore, in order for the researcher to understand what is already known, a literature review conducted prior to data collection can prevent the him or her from uncovering concepts that are already well established (Bryant & Charmaz, 2007). Due to the latter reasons, I conducted a literature review before beginning data collection for this grounded theory study.

Historical Overview of Therapeutic Human–Animal Interactions

There has been a long history of the human–animal interaction—animals as healers, and animals as companions. Evidence exists of interactions between humans and animals throughout history for example, the ancient Egyptians worshipped cats; Native American lore often depicts animals; and herders have long enjoyed companionship from dogs (Walsh, 2009). More recently, animals have become recognized as important to human health. In this section, I provide a chronological historical overview, beginning with our relationship with animals in a therapeutic milieu, and then move to relationships of persons living with pets.

The therapeutic use of animals was first documented in 1796 at the York Retreat in England (Hooker, Freeman, & Stewart, 2002; Matuszek, 2010). The York Retreat was

a residential center for people affected with mental illness; patients were treated humanely, as individuals with interests and connections to others. As part of the therapeutic milieu, residents interacted with small farm animals in addition to other activities such as reading, writing, and walking. These activities represented a revolutionary deinstitutionalization in mental health, and a holistic approach in which interacting with animals benefited people with mental-health concerns (Matuszek, 2010).

In 1859, Florence Nightingale (2008/1859) wrote in her *Notes on Nursing;* "A pet bird in a cage is sometimes the only pleasure of an invalid confined for years to the same room" (p. 158). Nightingale recognized animals as therapeutic to the health of patients. Likewise, nurse Dorothea Dix was a pioneer in social reform who advocated for persons with mental illness. She visited the York Retreat and was inspired to bring those humane practices to the United States. Dix's influence, through her role as superintendent of nurses for the Union Army, and her visit to the York Retreat, led her to recommend creating an institution for persons with mental illness (North Carolina Department of Health and Human Services, 2010). In 1919, Dix encouraged St. Elizabeth's Hospital to use animals as a form of therapy for persons with mental illness (NIH, 1987). As a result, the use of animals as a part of the therapeutic milieu gained momentum in the United States. For example, in 1944, the rehabilitation care program at the Army Air Force Convalescent Hospital in Pawling, New York was expanded to include dogs as part of therapy (Palley, O'Rourke, & Niemi, 2010).

In 1964, at the VI International Congress of Psychotherapy, psychologist Boris Levinson presented a paper entitled "Pet Psychotherapy: Use of Household Pets in the Treatment of Behavior Disorder in Childhood," in which he described the benefits of pet

therapy in practice. He later published the paper, offering anecdotal observational evidence about the positive impact of human–animal interaction. The paper demonstrated how a child who was resistant to communication readily interacted with Jingles, Levinson's dog (Levinson, 1965). The paper also recounted similar pet-therapy experiences his colleagues encountered in practice.

In the 1970s, the therapeutic use of pets increased; training standards were established to ensure that the animal had an acceptable temperament and the handlers managing the pets were adequately trained. In 1976, nurse Elaine Smith founded Therapy Dogs International. The organization offered testing, registration, and regulation for therapy dogs and their volunteer handlers. The dogs and handlers were required to pass testing before being allowed to visit individuals convalescing in nursing homes, hospitals, and other institutions (Therapy Dogs International, 2017). Similarly, in 1977, the Delta Society, an international nonprofit organization now known as Pet Partners, was established. The organization also required animals and handlers to go through rigorous training and testing before approving the team to be used in therapeutic settings. Their mission is to use therapy, service, and pets to improve the health of humans (Pet Partners, n.d.).

In the 1980s, researchers became interested in the therapeutic benefits of living with pets. Friedmann and colleagues (1980) conducted seminal research on postmyocardial infarction (MI) and angina pectoris (AP) survival rates of persons living with a pet versus those without a pet. The multidisciplinary research team surveyed 96 hospitalized patients who experienced an MI or AP. At 1 year following discharge, 92 participants were included; 53 (58%) of them had pets. Seventy-eight participants (84%)

survived and 50 (65%) lived with a pet. Pet ownership was correlated with survival (r = 0.26, R^2 = 0.067, $p<0.01$). The researchers speculated that the participants with pets may have had increased survival rates due to increased social interactions, physical activity, and decreased stress (Friedmann et al., 1980), but how pets positively influenced survival remained unclear.

In 1987, the NIH convened a special meeting to discuss the health benefits of animals. The meeting was in response to the growing number of U.S. household with pets, findings from the Friedmann et al. (1980) study, and many of the historical events recounted earlier (NIH, 1987). During this 2-day meeting, researchers presented their expert opinions and research findings about human–animal relationships and human health, then created a working draft to synthesize the research and establish an agenda for future research. They concluded that when studying human–animal relationships, it was important to note the presence (or absence) of an animal in the home along with the nature of the human–animal relationship. They further concluded that animals had the potential to influence human health, but recommended additional research on the relationships between humans, health, and animals.

Since this landmark NIH meeting, hundreds of studies have been conducted, providing more evidence about the physical and psychological health benefits from interacting with animals (Buettner, Fitzsimmons, & Barba, 2011; Castelli, Hart, & Zasloff, 2001; Cole et al., 2007; Garrity, Stallones, Marx, & Johnson, 1989; Harris, Rinehart, & Gerstman, 1993; Krause-Parello, 2008, 2012; McColgan & Schofield, 2007; Scheibeck et al., 2011; Siegel, 1990). This growing body of evidence has led the NIH (2009) and the AHA (Levine et al., 2013) to endorse potential benefits (i.e., decreased

blood pressure, increased physical activity, and decreased stress) from the human–animal relationship. Pets remain an important part of the therapeutic milieu, and have specifically been included in interventions such as the Eden Alternative, a model that incorporates pets, plants, and children into nursing homes (Coleman et al., 2002).

In summary, human–animal relationships have existed for centuries. Now our own pets are being recognized for their potential role in positive human health benefits. Funding agencies such as the NIH and AHA have endorsed the benefits of living with pets, encouraging ongoing research in the field of human–animal interactions.

Decision Making Among Older Adults

Decision making is considered multidimensional and situation-specific (Noone, 2002). Older adults' decision making is influenced by many factors, and individuals with chronic conditions are faced with ongoing decisions that can affect long-term health. Increasingly, the literature suggests that individuals' values, roles, and obligations as family and community members are major factors affecting decision making about health. Health decisions may be impacted by social influences such as family (Gallant, 2003) or competing family priorities (Riegel, Dickson, & Topaz, 2013). Approximately 32% to 54% of older adults in the United States have a pet (American Pet Products Association, 2017; Keenan, 2010), and 80% have at least one chronic condition (CDC, 2011). Chronic conditions are a significant economic burden on the healthcare system, consuming 75% of all healthcare expenditures (CDC, 2009). Given that a majority of older adults manage a chronic condition, live with a pet, and consider the pet as a friend or family member (Burns, 2013; Johnson & Meadows, 2002), it is likely that pets influence older adults' decision making.

Health decisions can be influenced by social factors such as friends or family, whose influence may be direct or indirect (Rini et al., 2011). In *direct influence,* the family member or friend offers an opinion about what decision should be made. *Indirect influence* is when the decision maker feels a sense of obligation to the family member or friend and makes a decision to meet that obligation. Recognizing that many people consider their pet to be a family member or friend, the pet could have indirect influence on decision making.

Additionally, when older adults make health decisions, they consider their value preferences for quality of life instead of disease-specific outcomes (i.e., decreased blood pressure or fluid overload; Fried et al., 2008). When faced with decisions about quantity (years) or quality of life, older adults are more likely to choose quality of life (Case, Towle, & Fried, 2013) and prioritize maintaining their independence (Fried et al., 2011). Therefore, it is possible that older adults with pets may choose to live independently with their pets to maintain a quality of life instead of choosing to relinquish their pet to achieve quantity of life.

In sum, a majority of older adults manage a chronic condition while living with a pet whom they consider a friend or family member (Burns, 2013; Johnson & Meadows, 2002) as well as an important priority (Cohen, 2002). Thus, it is reasonable to consider that an older adults' relationship with and feelings of obligation toward their pet influences decision making.

Pets' Influence on Decision Making

Research findings and anecdotal reports suggest that relationships with pets influence decision making. Pets are influential when deciding to how to proceed during

healthcare situations, in walking behaviors, with specific chronic conditions, during interactions with healthcare providers, in housing situations, and when deciding to keep or relinquish the pet. An overarching theme reported in the literature is that humans consider the welfare of their pet when making decisions, which may result in potential negative consequences for themselves. In the following sections I provide additional details about the influence of pets on decision making.

Obligations to ensure pet care. The responsibility of pet ownership comes with an obligation to ensure that a pet's basic needs are met. Pets are described as "cherished pet[s]" (Winefield, Black, & Chur-Hansen, 2008) or "loved member[s] of the family" (Rosenkoetter, 1991). Within the family system, a pet may be considered a vulnerable family member because the pet's welfare is dependent on the human; they accept protective responsibility to care for it by providing basic needs such as food, water, and shelter. For older adults, these responsibilities offer a sense of purpose and meaning (McColgan & Schofield, 2007). Pragmatic concerns emerge about who will take care of their pet when they are away or unable to provide pet care; people living alone may have difficulty identifying someone to provide that care (Friedmann et al., 1983; Manor, 1991). Older adults may be particularly impacted because their shrinking social networks (Wrzus, Hänel, Wagner, & Neyer, 2013) or limited resources hinder their access to pet-care assistance (Manor, 1991). This can be concerning when health situations arise that result in prioritizing the well-being of the pet over their own.

The influence of pets on healthcare situations. Published research, clinical reports, and expert opinions suggest that in unexpected situations, people may refuse or delay obtaining healthcare due to concerns about their pet's welfare; however, only three

studies have directly explored pet influences on healthcare decisions (Cohen, 2002; Friedmann et al., 1983; Peacock et al., 2012). The first study identified whether hospitalized patients' perceived their pet to be influential with regard to their decision to enter the hospital (Friedmann et al., 1983). The other two descriptive studies examined whether pets were influential when faced with various hypothetical dilemmas, including decisions about healthcare recommendations (Cohen, 2002; Peacock et al., 2012). Due to the limited research available and alignment with the purpose of this dissertation, pertinent details of each study are described below to further emphasize the need for additional research. Supportive evidence from the extant literature is discussed, from additional research findings, anecdotal evidence, clinical reports, and expert opinions.

In an early quantitative exploratory study of hospitalized older adults (N = 95), participants with pets (n = 36) were surveyed and interviewed about the influence of their pet on their decision to be hospitalized and how the hospitalization was impacting the relationship with their pet (Friedmann et al., 1983). Participants were hospitalized for a scheduled procedure or a nonscheduled admission; none were admitted for elective procedures. Diagnoses were cardiac-related, cancer, or osteomyelitis. Pet owners were asked questions about the care their pet was receiving, what pet-related concerns they had, and what pet-related difficulties emerged during their hospitalization. Thirty-three percent (n = 12) were concerned about their pet's welfare; with 17% (n = 6). This concern was influential when deciding on becoming hospitalized. Concerns included arranging care for their pet during hospitalization and concerns about the pet's welfare during the separation. The study highlighted an example of a woman who delayed hospitalization for heart failure due to anxiety about arranging care for her pet prior to her

hospitalization. Similarly, a clinical report described an older adult foregoing cancer treatment due to the inability to arrange pet care, noting the older adult was "determined that she was not going to leave Honey" (McKee, 1989, p. 57). Other reports have described delaying hospitalization for illness (Netting et al., 1987), delaying emergency surgery (Heath & Champion, 1996), or delaying medical treatments (Carmack, 1991; Chur-Hansen, Zambrano, & Crawford, 2014; Manor, 1991; McNicholas et al., 2005) until the pet's welfare was ensured. This act of delaying hospitalization or other healthcare due to concerns about family caregiving responsibilities has also been described among people with heart failure who experienced an exacerbation of their own health condition while caring for their child (Riegel et al., 2013). These examples of delaying medical care illuminate the fact that other priorities may compete with self-care (Riegel et al., 2013).

Although the study by Friedmann et al. (1983) revealed that pets might be influential in healthcare decisions, especially when concerns arise about arranging care during hospitalization, the sample size of pet owners was relatively small (n = 36). Furthermore, the study has not been replicated to further verify and examine other factors about how and why pets are influential in decisions that result in delaying medical care.

The second study specifically examining pet-related influences on decision making used a descriptive mixed-methods approach to examine the role of the pet as family and also the extent to which people prioritized their pet when faced with hypothetical ethical dilemmas (Cohen, 2002). In Phase 1, participants (n = 201) compared family members with a pet they felt closest to. The findings suggest that their relationships with their family did not impact their relationships with their pets (Cohen,

2002); that is, pets were part of the family network with a unique contribution in the family, and not merely substitutes for other family members.

Participants in Phase 2 (n = 16) were a subsample from Phase 1 selected to provide equal representation of gender and education (4 female college graduates, 4 female nongraduates, 4 male college graduates, and 4 male nongraduates; Cohen, 2002). Phase 2 participants were presented with four hypothetical ethical dilemmas. One dilemma was aimed at uncovering the influence of their pet on health decisions. Participants were asked if they would give up a pet if a physician said it was causing their health problems. The researchers found that 25% (n =4) of the participants would not give up a pet if recommended by a physician. In fact, many participants reported they would first try to work around the health problem instead of giving up the pet (Cohen, 2002). These findings support other reports suggesting that people with pet-related allergies may decide to keep their pet even if the pet is contributing to their allergy symptoms (Coren, 1997). Furthermore, households with pet-related allergies may continue to acquire pets (Bertelsen et al., 2010) after the former pet is deceased (Coren, 1997). Indeed, many people would rather endure the symptoms or consequences of their allergies rather than follow a recommendation to relinquish a pet that is causing the symptoms (Coren, 1997). This evidence supports that people are willing to endure or work around a health problem as a strategy to keep their pets.

Overall, these findings suggest that pets can influence health decisions when the pet is considered part of the family. People may choose not to follow physician recommendations, instead prioritizing the human–animal relationship despite potential negative health consequences. The findings from Cohen's (2002) study are limited

because of the small sample size in Phase 2 and because hypothetical situations were explored as opposed to actual situations. As such, it may be useful for healthcare providers to understand the interrelationships between human–animal relationships and health decision making when discussing health issues and competing priorities with older adults managing chronic conditions.

The third study specific to examining pet-related influences on decision making used quantitative descriptive methods, and the investigators sought to extend Cohen's (2002) findings about refusing physician recommendations (Peacock et al., 2012). The purpose of their study was to examine pet attachment, psychological distress, and social support. Community-dwelling adult participants (N = 138) from Australia, responding to a questionnaire, were asked, hypothetically, if they were willing to undergo physician-recommended surgery if it meant separation from their pet. Nearly 17% of pet owners (n = 16) reported that they were unsure or would not proceed with surgery. Those with high pet attachment were less willing than those with moderate or low attachment (Peacock et al., 2012). This study offers additional support to the phenomenon of pet influences on health decisions. As with Cohen's (2002) study, the findings offer only implications based on hypothetical questions posed to participants. In contrast, Friedmann et al. (1983) elucidated information about actual situations in which pets influenced decision making.

Decisions to delay medical care seem counterintuitive because they could lead to catastrophic outcomes or even death, thus leaving the pet without its human guardian. A person may inadvertently be risking his or her long-term health for the immediate need to maintain the relationship with the pet. Experts suggest that in the context of unexpected health situations, resources should be made available to ensure the care of pets, or the

pets should be allowed in areas where they have previously been prohibited (i.e., hospital or housing; Morley & Fook, 2005).

Clearly there is a paucity of research specifically focused on people's health-related decision making and the influence of their relationships with pets. The evidence supporting the influence of pets during healthcare situations is mostly discerned from hypothetical situations, anecdotal reports, and single-incident case examples, or from research that has not been replicated. While the body of evidence is limited, there are several sources suggesting that pets are influential in health situations. Moreover, the evidence suggests that some individuals may be risking their own health. Additional research is needed to understand more about the pet-related factors that influence decisions such as those described above.

The impact of dogs on walking behaviors. Physical activity, such as walking, is considered beneficial to health and is often recommended to manage many chronic conditions. Researchers have begun to examine how dogs motivate people to walk, using both qualitative and quantitative approaches. In this section I review examples of research about the influences of dogs on walking; however, it should be noted that this is not an exhaustive review of the research on dog-walking behaviors.

Dog walking is usually a common activity among dog owners. In general, dogs require daily exercise, and use the outdoors for elimination needs. People who walk with dogs walk further (Abate, Zucconi, & Boxer, 2011) and for twice as long compared to people who do not walk dogs (Gretebeck et al., 2013). Walking a dog in the community promotes a sense of social connection with dog owners and others (Cutt, Giles-Corti, Wood, Knuiman, & Burke, 2008). People who walk dogs are often motivated by their

obligation toward the dog to promote its well-being, and not necessarily motivated for their own health promotion (Abate et al., 2011; Cutt et al., 2008; Gretebeck et al., 2013; Knight & Edwards, 2008). One study highlighted a participant who had suffered a heart attack and decided to walk his dog for 30 minutes per day even when he did not feel like walking, thus influencing healthy walking behaviors (Knight & Edwards, 2008). Feeling an obligation to a dog's well-being can also influence limited walking behaviors; for example, when the dog has physical ailments, such as arthritis, dog owners modify or reduce their walking (Degeling & Rock, 2013). An individual's walking behavior is clearly influenced by perceived benefits for the dog, not necessarily by perceived benefit to the person's own health. This suggests that while dogs can influence walking behavior, the behavior is directed toward the health and happiness of the dog, not the human, further supporting a pet's influence on health decision making.

The impact of pets on specific chronic conditions. Prior research examining the health benefits of living with pets compared and contrasted the general physical and psychological well-being of pet owners with nonpet owners. Overall, the findings suggest that people with pets describe better physical and psychological well-being. As evidence about human–animal relationships has advanced, research about pets and health has shifted to examine the role of pets for people with specific diseases. For some individuals who are managing chronic conditions, their pet may be the most important member of their social network (Brooks et al., 2013). The studies described below examined the relationship that people with chronic conditions had with their pets, but did not specifically examine decision making.

People with chronic conditions describe both positive benefits from and negative

aspects of pet ownership. Researchers in Ireland conducted a quantitative study with open-ended questions examining the therapeutic value of living with a pet by people with chronic fatigue syndrome (Wells, 2009). They found no statistical significance between pet owners (n = 98) verse nonpet owners (n = 70) when using scales to measure health, but when asked about pet effect on health, they described that the positive benefits outweighed the negative aspects. Positive benefits of living with a pet included the pet being a calming presence, providing a reason to get up in the morning, and creating in the human a sense of purpose (Wells, 2009). Similarly, researchers in studies of individuals with HIV have reported that living with a pet increases feelings of support, decreases loneliness (Castelli et al., 2001), encourages physical activity, and provides a sense of purpose (Kruger, Stern, Anstead, & Finley, 2014).

Within these investigations of specific chronic conditions, participants described that the positive aspects often outweigh the negative aspects (Castelli et al., 2001). Negative aspects included physical challenges with providing care, guilt about not spending enough time with the pet, worry about the pet (Castelli et al., 2001; Wells, 2009), the cost associated with having a pet, exposure to fleas, allergies, and pet behavior problems (Kruger et al., 2014). Certainly, caring for a pet while managing a chronic condition can present challenges. Understanding the barriers to or negative aspects of pet ownership in chronic-condition management can be helpful in ensuring that those concerns are addressed.

Larson et al. (2010) conducted a quantitative descriptive study with open-ended questions to understand more about concerns people with cancer have about their pets. In a convenience sample of 170 pet owners, 80% (n = 136) were receiving pet-care

assistance from family members, and only12 participants wanted to know more about possible resources to care for their pets, leading the researchers to conclude that few people in the study had pet-related concerns. Only one specific concern was reported, from a person at risk for a hip fracture who was given a 10-pound lifting restriction, as her cat weighed 12 pounds (Larson et al., 2010). It was not reported why this was a concern, nor whether the restriction resulted in nonadherence to the lifting restriction, potentially resulting in a negative outcome; the authors did not further explore this participant's comment. The authors did report that a majority of the pet owners did not receive information from their provider about strategies to care for their pet while managing their cancer (Larson et al., 2010). This raises a question of who is responsible for helping people navigate concerns about their chronic health condition while also caring for their pet.

The role of healthcare providers and others regarding pet-related recommendations. Healthcare providers are often sought to provide expert opinions and recommendations regarding health-related decisions; however, the role of healthcare providers inquiring about pets or the importance of pets appears inadequate. Studies in the fields of sociology (Hanrahan, 2013; Risley-Curtiss, 2010) and medicine (Stull, Peregrine, Sargeant, & Weese, 2012) found that between 80% and 87% of the time, health professionals did not assess the importance or presence of pets in the family. Additionally, during research, investigators overlooked the importance of pets while interviewing people with chronic conditions, despite the participant's interactions with their pet during the interview (Ryan & Ziebland, 2015). Data on the percentage of nurses assessing for pets is unknown; however, in one hospital, nursing had taken an active role

in assessing the importance of pets and were working to change hospital policy to ensure that hospitalized individuals could have a visit from their family pet (Sehr et al., 2013).

When providers offer a pet-related recommendation, it can be to relinquish the pet. Patients may decline medical treatment or not comply with medical advice if it results in a separation from their pet (Cohen, 2002; McKee, 1989; Winefield et al., 2008). Another concern is that patients may decide to withhold information about the human–animal relationship if they fear the outcome could result in a recommendation to relinquish or separate from their pet; for example, older adults may need assistance with pet care, yet may fear that requesting assistance would result in their forced separation from the pet (McNicholas et al., 2005; Skeath, Fine, & Berger, 2010). However, inadequate pet care could be harmful for the animal. For instance, a dog may require walking twice daily, but the older-adult owner may have the energy for only one walk; an older adult may be unable to bend over to clean the cat litter box, but may worry that asking for assistance would result in relinquishment recommendations. When someone does not seek caretaking assistance, he or she could be risking the pet's welfare.

As noted, concerns about being separated from their pet (O'Donovan, 1997) or otherwise being unable to arrange care for the pet during medical treatment could result in patients refusing healthcare or medical recommendations (Hoffman, 2012; McNicholas et al., 2005; Morley & Fook, 2005; Netting et al., 1987). As such, they may not seek healthcare if they are concerned that pursuing the health services would result in their pet being taken away (Banfield Charitable Trust, 2013). Older adults may not reveal the important meaning or influence of a pet (Chur-Hansen et al., 2014) due to embarrassment (Winefield et al., 2008), concerns that the human–animal relationship will be

misunderstood (Chur-Hansen et al., 2014; Wisdom, Saedi, & Green, 2009), or fear that the pet could be taken away and euthanized (O'Donovan, 1997).

For some people, their pet is an important family member integrated into their daily life. Indeed, people may spend most of their time with their pet, and may share special daily routines for feeding, activity, and sleeping. These special routines and the human–animal relationship may appear strange to others, and some people may be embarrassed to express the deep emotional attachment they have to their pet (Skeath et al., 2010). Consequently, healthcare professionals cannot address patient-centered values if they do not acknowledge the importance of the pet, or if they minimize the importance of the human–animal relationship. Therefore, without direct inquiry, older adults may not independently reveal pet-related information, and might possibly withhold information about needing assistance if they believe others do not understand the value of their pet.

When health professionals overlook the human–animal relationship, opportunities are missed to discuss pet-related aspects of health, which in turn may limit the health professionals' ability to understand relevant social influences on health decisions. Therefore, patients need health professionals (i.e., nurses, social workers, physicians) to inquire about, acknowledge, and appreciate the importance of the human–animal relationship and how that relationship can influence many decisions.

The influence of pets on shelter and housing decisions. Pets can be influential for individuals seeking sheltering services during perilous situations of intimate partner violence, homelessness, and natural disasters. In situations of intimate partner violence, concerns for the pet's safety may influence a victim's decision to remain in or leave their abusive relationship and seek shelter services (Faver & Strand, 2003; Strand & Faver,

2005). In some cases, the woman's abuser would threaten her pet's safety as a means of coercive control, or the woman was forced to watch her pet being abused while the abuser threatened similar abuse toward her (Hardesty et al., 2013). When their pet suffered abuse, women delayed seeking shelter out of fear for their pet's safety (Ascione et al., 2007; Flynn, 2000). It is apparent that some women may put their own safety at risk to protect their pet from harm, choosing not to seek shelter away from their abuser. Women who do seek shelter, and leave the pet with the abuser, may continue to worry about their pet's safety (Faver & Strand, 2003). While atypical, some domestic-violence shelters do offer accommodations for pets (Ascione et al., 2007); however, accommodations that prohibit pets may leave women perceiving that they have little control over their options to leave (Hardesty et al., 2013).

Likewise, during natural disasters such as tornados and hurricanes, pet owners often refuse to evacuate due to concern over the welfare of their pets. Older adults, especially those living alone, are more likely to reject evacuation for this reason; for example, some older adults may refuse evacuation if their pet is not included in a hurricane evacuation plan (Rosenkoetter et al., 2007). Pet-related factors contributing to evacuation refusal include costs related to transporting and sheltering a pet; difficulty planning for extra litter boxes, food, and water during the evacuation (Hunt, Bogue, & Rohrbaugh, 2012); concern that pets might experience stress; and pets being prohibited in the same shelter space as the pet owner (Heath & Champion, 1996). Finding pet-friendly shelter options is also a challenge for homeless individuals with pets, who may refuse shelter accommodations (Kidd & Kidd, 1994) or housing (Cronley, Strand, Patterson, & Gwaltney, 2009; Singer et al., 1995) that prohibits pets.

Pets are also influential when their owners make decisions about their residential situation; for example, an older adult may benefit from residing in an assisted living facility or downsizing to a smaller residence, yet if the residence prohibits pets, they may choose not to relocate, and instead remain in suboptimal housing where their pet is allowed (Netting et al., 1987). Some older adults cannot conceive of moving to housing that restricts their pets, especially when their pet provides companionship and is considered as a reason for living (Chur-Hansen, Winefield, & Beckwith, 2008).

It is clear that the human–animal relationship within these high-risk contexts of intimate partner violence, homelessness, and natural disasters can be very influential in the decision-making process about personal and pet safety. The evidence suggests that the desire to remain with one's pet can lead to decisions that may compromise one's own welfare.

Separation from the pet. One of the overarching issues regarding a pet's influence on decision making is concern about the pet's welfare and becoming separated from the pet. A person may experience a temporary or permanent separation from their pet. Temporary separation occurs when the person expects to return home to their pet, such as when seeking medical treatment (e.g., chemotherapy), hospitalization, or travel. During hospitalization, a person may express concerns about the pet's welfare and seek regular updates from the individual caring for the pet (Friedmann et al., 1983). A permanent separation may occur when a person needs assistance performing caretaking activities (Skeath et al., 2010), relocates to a residence that prohibits pets (Netting et al., 1987), or is no longer able to care for the pet (Shore, Petersen, & Douglas, 2003). In such situations, the person must decide about relinquishing the pet. When the pet is

relinquished to an animal shelter, its future is uncertain, and the person may worry that their pet will be euthanized (Carmack, 1991; O'Donovan, 1997). People may also experience guilt or anxiety (Davis & Juhasz, 1984) about the separation because of their failure to promote the welfare of their pet (Shore et al., 2003).

During a permanent separation, owners perceive the decision to relinquish their pet as either voluntary or involuntary. When they recognize their own limitations in keeping the pet, they may voluntarily relinquish it out of a desire to provide the pet with an opportunity for a better life (Shore et al., 2003). In contrast, other people may view the relinquishment as involuntary when they see no choice but to give up their pet. For older adults, having to decide to move into pet-restrictive housing, and the need for medical treatment, are often contexts of involuntary separation. They describe the separation as a matter of "no choice" (O'Donovan, 1997), or being "forced to give up" their pet (McColgan & Schofield, 2007); they may express a "fear of separation" (Winefield et al., 2008), the "threat of becoming separated" (Peacock et al., 2012), and a fear of loss (Chur-Hansen et al., 2014; Skeath et al., 2010). The use of terms such as *fear*, *force*, *loss*, and *threat* implies that the person is experiencing trauma as a result of separation from their pet; often, they are devastated that they are unable to maintain the human–animal relationship (Shore et al., 2003). This permanent separation may be analogous to the loss of any loved family member, and negatively impact the human's well-being (Packman et al., 2014).

Individuals may feel so desperate to remain with their pet that they refuse to be separated. The refusal to separate has been described with phrases such as "never give up a pet, no matter what" (Cohen, 2002, p. 631), "determined that she was not going to leave

Honey" (McKee, 1989, p. 57), "non-compliance on health advice" (McNicholas et al., 2005, p. 1252), or "I don't think I could give it up" (Chur-Hansen et al., 2009, p. 284). These nonnegotiable statements imply that people may believe they have only two options: forced separation or maintaining the human–animal relationship. As a consequence of perceiving only two options, they may decide to make tradeoffs with their own health and well-being to remain in the relationship.

Tradeoffs. Deciding whether to separate from a pet through relinquishment or to keep a pet is often a dilemma; for example, when a family member is allergic to a pet or when a new baby is expected, the family may decide to give up the animal (Podberscek, 2006). In contrast, people may sacrifice their own comfort and health (Cohen, 2002; Manor, 1991; McKee, 1989; McNicholas et al., 2005) or remain in suboptimal living conditions in order to remain with their pet (Chur-Hansen, Winefield, & Beckwith, 2009; McColgan & Schofield, 2007; Winefield et al., 2008). In these situations, the decision to maintain the human–animal relationship may represent an individual's internal struggle, or a conflict between their own health and their relationship with their pet (Peacock et al., 2012). When someone decides to maintain the human–animal relationship at the cost of their own health or comfort, they are prioritizing that relationship.

Gaps in the Literature

Several gaps exist in the current literature about the human–animal relationship and the influence of the relationship during decision making. First, many of the published descriptions were from the perspective of the author, and did not offer direct evidence from the perspective of older adults about their pet-related concerns. Second, the publications about the influence of pets in healthcare decision making provide data about

influencing factors, including concerns for the welfare of the pet, fear of separation from the pet, making tradeoffs to preserve the human–animal relationship, withholding information about the importance of the pet, and healthcare providers not fully acknowledging the importance of the human–animal relationship. While the literature offers foundational understanding that people are fearful of losing their pet, and therefore may decide to compromise their own health, there is limited data about the details of that decision-making process. Lastly, several of the publications offered only expert opinions and anecdotal evidence; therefore, the full scope of the situation(s) that would lead to such decisions is unclear. Overall, future research is needed to better understand the meanings and decisional processes from the perspective older adults living with a pet and managing chronic disease. Qualitative inquiry into this phenomenon, with the development of a grounded theory, offered a more complex understanding and framework for developing effective interventions for older adults experiencing pet influence on decisions.

Theoretical Discussion

Theoretical frameworks strengthen research by offering explicit underpinnings for the context of the study, articulating broader concepts and allowing research findings to be compared across studies; however, no theoretical framework exists specific to human–animal relationships (Hosey & Melfi, 2014; Kidd & Kidd, 1987; Peacock et al., 2012; Wilson, 1994). In fact, theoretical frameworks specific to studying human-animal relationships are usually borrowed from human-human relationship frameworks (Blazina et al., 2011; Wilson, 1994).

No Human–Animal-Specific Framework

A few things may explain the lack of a human–animal framework. First, although more than 30 years' of research has been published, the field of human–animal studies remains in its infancy and is considered an emerging field of inquiry (Hosey & Melfi, 2014). This is likely due to the involvement of multiple disciplines in the field of human–animal research.

Second, there is no single lexicon used to describe the relationship with animals (Hosey & Melfi, 2014). Terms such as *pet*, *companion animal*, *domestic animal*, *service animal*, *animal-assisted therapy*, *animal-assisted interactions*, *animal-assisted activities*, *animal-assisted interventions*, *human–animal bond*, *human–companion animal bond*, *human–animal interactions*, *human–animal relationships*, *human–nonhuman interactions*, *human–animal attachment*, and *interspecies relationships* are all used—some of them interchangeably—or are used in various combinations with or without explanation. Inconsistent terminology without definitions creates challenges to comparing relationships across studies.

Lastly, as previously mentioned, research about human–animal relationships is multidisciplinary (Blazina et al., 2011). The field attracts researchers from veterinary medicine, human medicine, nursing, sociology, psychology, physical therapy, anthropology, and many other disciplines. With interest from such a variety of disciplines, it is understandable that there are just as many theoretical perspectives, contexts for inquiry, and philosophical assumptions (Hosey & Melfi, 2014). Therefore, research has either been atheoretical (Raina, Waltner-Toews, Bonnett, Woodward, & Abernathy, 1999) or frameworks have been borrowed from human-relationship theories. Borrowed theoretical frameworks, such as attachment theory, provide a description of

human–animal relationships; they do not provide explanations about the processes and actions that take place in human–animal relationships.

Origins of Attachment Theory

Attachment theory was originally developed to explain the dependent child–parent relationship or reciprocal adult relationships (Goodwin, 2003). It is commonly used to study human–animal relationships. Attachment theorists Bowlby, Ainsworth, Bartholomew, and Horowitz are often cited in human–animal relationship literature (Beck & Madresh, 2008; Peacock et al., 2012; Winefield et al., 2008). In the following section I discuss the origins of attachment theory from the perspective of the aforementioned theorists. Next, I briefly discuss attachment through the lifespan, then elucidate the differences between attachment theory, attachment, and affectional bonds. I then describe how attachment theory has been applied to study human–animal relationships. Finally, I offer my assessment of the strengths of and gaps in using attachment theory to study human–animal relations.

Bowlby. John Bowlby (1969) originally developed attachment theory. In his book *Attachment and Loss*, Bowlby cited many publications by Freud about secondary drive theory, Klein's (1948) object relations theory, Harlow's (1961) research in ethology (the study of animal behavior), and the work of Ainsworth (see Bowlby 1969). In theorizing about attachment behaviors, Bowlby disagreed with Freud's well-accepted secondary drive theory that assumes secondary behaviors (i.e., crying) are done to meet primary needs (i.e., food, liquids, warmth, and sex); that is, an infant will cry to satisfy a primary need for nourishment fulfilled by the nursing mother (Bowlby, 1969). Bowlby (1969) cited Klein's (1948) object relations theory, which suggested that the mother's breast is

the primary object to which the infant relates (Bowlby, 1969). However, Bowlby (1969) noticed that object relations theory was not supported in other emerging ideas about attachment behaviors. Bowlby (1969) cited many of Harlow's maternal deprivation experiments on Rhesus monkeys, as those experiments demonstrated that an infant monkey removed from its mother preferred a fur-covered wire monkey substitute without nourishment over a wire-only monkey substitute with nourishment (see Harlow, 1961). Moreover, Bowlby's own clinical experiences did not support the theories of the time; he was not convinced that theoretical assumptions held true in actual research of observed behaviors (Bowlby, 1969).

Bowlby proposed attachment theory as an alternative theory to explain that attachment behaviors in the caregiving relationship between mother and child (i.e., suckling, clinging, following, crying, and smiling) were instinctive (Bowlby, 1958): a mother would respond to an infant's cry, seeking and maintaining proximity to the infant; the infant would feel separation distress when away from the mother and seek safe haven with the mother when frightened; the child would feel a secure base from which to explore the environment when the mother was near. These behaviors are commonly described in attachment theory as *proximity maintenance*, *separation distress*, *secure base*, and *safe haven*. Bowlby (1969) stressed that attachment behavior is activated in certain situations (i.e., during stress or fear), and that the intensity of the behavior may vary.

Ainsworth. Ainsworth, a colleague of Bowlby, added to these concepts by suggesting that infants develop a sense of safety and security with their mothers, and desire to remain close as a way to promote the feelings of attachment (Ainsworth, 1969).

Ainsworth's research on infant–mother relations contributed significantly to the understanding of attachment behavior, particularly that there are three infant attachment patterns: secure, insecure, and ambivalent (Bretherton, 1992). Secure infants cry very little and are content to explore when their mother is present; insecure infants cry often and do not respond to their mother's attempts to console, nor do they explore often. Ambivalent (not-yet-attached) infants are indifferent to their mothers. Ainsworth (1969) and Bowlby (1969) agreed that attachment behaviors and patterns are not exclusive to the infant–parent relationship, and could be extended to relationships throughout the life span.

Bartholomew and Horowitz. Bartholomew and Horowitz (1991) combined the ideas from Bowlby's working model of attachment with Ainsworth's attachment patterns to describe four styles of adult attachment: *secure*, *preoccupied*, *fearful*, and *dismissive/avoidant*. *Secure* attachment is described as a positive sense of self, with trust and security that others will be available in a time of need. Moving along the continuum, a *preoccupied* attachment style describes someone who actively seeks acceptance and love from others, yet is worried about being unworthy and thus perceives being at risk for rejection. *Fearful* attachment is similar to preoccupied attachment; however, the person actually fears rejection and is not satisfied by the support provided from the attachment figure. Last, people with a *dismissive/avoidant* attachment style do not outwardly value close relationships and may be considered independent, explicitly avoiding being dependent on others.

Attachment through the lifespan. Attachment can occur between parent and child, siblings and kin, friends or companions, and partners (Ainsworth, 1989). When

attachment shifts from parents as attachment figures to romantic partners (or children) as attachment figures, people may explore other patterns of attachment (Chopik, Edelstein, & Fraley, 2013). Although attachment behaviors may be relatively constant throughout the lifespan, there are differences between younger adults and older adults. Compared to younger adults, older adults experience more secure attachments and are less anxious and avoidant in their attachment styles (Chopik et al., 2013). Additionally, as an older adult's social network decreases, so do available attachment figures (Van Assche et al., 2013). When attachment theory is applied across the lifespan, the components shift from initial behaviors exhibited by infants into multifaceted attachment styles with various individuals.

Attachment Theory, Affectional Bonds, and the Muddy Waters of Attachment

Attachment theory has a relatively clear line of evolution, beginning with examining attachment behaviors (proximity maintenance, separation distress, secure base, and safe haven) of the infant as it attempts to relate to the attachment figure, and also as the attachment figure attempts to respond to the child through caregiving. Attachment patterns develop depending on the quality (secure, insecure, or ambivalent) of these interactions between the attachment figure and child. Through ongoing interactions with the attachment figure, the child develops an internal working model about self and others based on the figure's responsiveness and their own perceived worthiness for the response. As attachment theory has evolved, so has the terminology used in defining attachment, thus blurring the lines between attachment and attachment theory.

Ainsworth and Bowlby emphasized differences between *attachment behaviors*

and *attachment*, noting that attachment behaviors are used to meet biological needs and provide protection, and thus are activated in stressful situations (i.e., illness, hospitalization; Ainsworth, 1969; Ainsworth & Bowlby, 1991; Bowlby, 1969), whereas attachment is equivalent with love; it can occur across the lifespan, regardless of needs, and is an enduring affectional bond formed with another (person or animal) that spans both time and space (Ainsworth, 1969). Likewise, Bowlby (1977) suggested that people are predisposed to create strong affectional bonds with specific individuals. Furthermore, an *attachment* is an *affectional bond* when the attachment figure is irreplaceable, sharing some components of attachment theory; yet affectional bonds may not become attachments if the individual does not experience security or comfort (Ainsworth, 1989). Although well intentioned and outlined, *attachment theory*, with the additional terms *attachment* and *affectional bonds*, may become interchanged and colloquial if they are used without the differentiation. Therefore, it is not surprising that "muddy waters" result when attempting to determine when the term *attachment* is intended to describe theory, attachment, or a loving affectional bond.

Attachment Theory in Human–Animal Relationships

The lack of description for attachment theory or attachment, or even a citation to the original attachment theorists (Crawford, Worsham, & Swinehart, 2006), has been a point of criticism in human–animal research. The term *attachment*, traditionally used in attachment theory, describes a relationship in which one seeks security and protection from someone who exhibits better coping skills. When applying this term to human–animal relationships, the pet does not necessarily offer protection or have better coping skills than the human; thus, there appears to be incongruity when likening traditional

attachment relationships to human–animal relationships (Crawford et al., 2006). Although attachment theory may not be analogous to human–animal attachments, and may not be adequately referenced, attachment theory is commonly used to explain human–animal relationships.

Some researchers have used attachment theory to make a direct link with certain aspects of the human–animal relationship, such as maintaining proximity to a pet (Peacock et al., 2012) or feeling safe and secure when a pet is around (Kurdek, 2009; Peacock et al., 2012). For example, Peacock et al. (2012) and Winefield et al. (2008) emphasized that Bowlby's (1982) attachment theory provides a framework to understand human–animal relationships, describing and using attachment theory to develop the Owner–Pet Relationship scale (Winefield et al., 2008). Additionally, Kurdek (2009) cited Ainsworth and Parkes (1991) to reference the four features of attachment (proximity maintenance, separation distress, secure base, safe haven) to elucidate how people rated their dogs as a safe haven in relation to other attachments with friends and family. Similarly, Beck and Madresh (2008) used Bartholomew and Horowitz's (1991) theory of adult attachment styles to compare patterns of attachment with a romantic partner versus a pet. Likewise, Krause-Parello (2008) suggested that Bowlby's (1969) and Ainsworth's (1989) attachment theory is useful in explaining the affectionate bond between humans and pets when animals provide a source of social support.

It is not surprising that attachment theory is appealing in the examination of human–animal relationships, as the animal's caregiving needs are at times analogous to an infant or small child. Furthermore, most agree that attachment-theory concepts ring true in describing human–animal relationships; that is, people have a desire to be near

their pets (proximity maintenance); want to reunite when separated, or feel grief with loss (separation distress); believe pets provide a sense of safety to explore the environment (secure base); and may turn to their animals for comfort when distressed (safe haven). There is incongruity, however, between the concepts of attachment theory and their application to human–animal relationships.

Shifting from attachment theory. Just as Bowlby (1969) shifted from the well-accepted ideas of secondary drive theory and object relations theory, I believe there is a need to shift from using attachment theory to examine human–animal relationships. Recall that traditional attachment theory posits that the attachment figure provides caregiving and offers protection when an individual feels threatened; yet attachment theory is being used to study human–animal relationships when the human seeks out the animal as the attachment figure. In critiquing attachment theory, attributing attachment-figure status to the animal is a fundamental limitation. The animal as the caregiving attachment figure for the human contradicts an assumption in human–animal relationships that the human is the caregiver for the animal. The question arises then: How is a pet the caregiver for the human when the animal is an assumed dependent partner in the human–animal relationship? This is perplexing, because in the practicality of the human–animal relationship, the pet is always dependent on the human for basic care needs, this does not allow the animal to be a realistic caregiver for the human. Therefore, when considering both the assumptions of human–animal relationships and the assumptions of attachment theory, applying attachment theory to human–animal relationships appears inconsistent with the tenets of classic attachment theory.

Moreover, relationships between humans and animals are interspecies

relationships, making them uniquely different from human–human relationships. When applying human–human relationship theories to human–animal relationships, there is a risk that unique aspects of the human–animal relationship may not be illuminated when using a predetermined framework. This critique of attachment theory's origins, the review of how it has been applied to human–animal relationships, and the limitations of the theory provide justification to use a grounded theory approach to examine how or why older adults' relationships with their pets may be influential in the health-related decision-making process.

Summary

The benefits of human–animal relationships have been demonstrated across research studies; however, more research is needed to understand how nuances in relationships with pets impact human health. Earlier research has addressed the impact of the presence (or absence) of pets on health, but exploration of the meaning and nature of the human–animal relationship is lacking. Furthermore, despite decades of research on these relationships, there is no specific framework guiding this area of research (Blazina et al., 2011; Kidd & Kidd, 1987). Although the components of attachment theory (proximity maintenance, separation distress, secure base, and safe haven) could be useful to generally describe the human–animal relationship, attachment theory alone cannot elucidate the process of how and why health decisions may be influenced by relationships with pets. There is therefore a need to develop a theoretical framework for human–animal relationships.

Another underdeveloped area is understanding how and why pets may influence the decision-making process. From this literature review it became clear that further

research is needed to better understand the decision-making process of older adults concerning chronic-condition management while simultaneously caring for their pet, especially in the context of health decision making, where daily decisions are made. In this dissertation I attempt to address both of these needs through a grounded theory study to examine how a relationship with a pet influences decision making. The findings will inform a human–animal-specific theory situated in the context of older adults with chronic conditions.

The potential implication of this study is for nursing and other healthcare professionals to assess personal values. It is critical to understand that an older adult's values maybe be related to their family members, their ability to maintain independence, their role in caregiving, and/or taking care of and being with their pet. Knowing this is critical to intentionally including the pet in care planning or interventions.

By understanding how a pet might facilitate or hinder decision making, specific interventions can be designed to maximize decisions leading to positive health outcomes and minimize decisions leading to negative health outcomes, and this is my long-term goal. Findings from this study could offer a novel framework of the decisional process of older adults managing a chronic condition while also living with a pet; the framework provides a foundation to create and test interventions specific to this population. Therefore, a grounded theory approach to examine the human–animal relationship in the context of health-related decision making may reveal information that has not yet been illuminated. This study is the first step toward this goal. In the next chapter I detail the methodological approach and procedures used to conduct this study.

CHAPTER 3: RESEARCH METHOD

In this dissertation study I used symbolic interactionism to examine how a pet influences decisions of older adults managing chronic conditions. Specifically, the lens of symbolic interactionism is used to understand how older adults construct their human–animal relationships and how they act upon the influence of their pets when faced with health decisions.

Research Design and Rationale

Qualitative research is useful for describing people's everyday lives (Corbin & Strauss, 2008) and interactions with others (Fain, 2009). From a constructivist interpretive lens, the philosophical underpinnings of qualitative research embrace the concept of multiple realities that are constructed within contexts of a phenomenon (Lincoln, Lynham, & Guba, 2011; Polifroni & Welch, 1999). Applying constructivist grounded theory methodology, the investigator seeks to understand the participants' construction of meanings and how these meanings influence actions in specific situations (Charmaz, 2014). A constructivist approach is useful in uncovering the process of how and why older adults may make decisions that are influenced by the human–animal relationship. The ontological and epistemological assumptions are from a relativist perspective, where multiple truths are constructed (Lincoln et al., 2011).

The constructivist and interpretive paradigms are similar in the areas of ontology, epistemology, and methodology. The difference between constructivism and interpretivism is the way relative truth is understood within each paradigm. Constructivism acknowledges an individual's social constructions of reality and that reality can be shared among many people (Lincoln et al., 2011). An interpretivist seeks to

understand the created reality of an individual to find meaning in his or her actions (Schwandt, 2000). While these distinctions seem discrete, Schwandt (1994) also cautioned against completely separating out these paradigms. Therefore, the researcher must interpret the constructed meanings and truths of the participants. Symbolic interactionism is well suited to understand meanings constructed by others.

Grounded Theory Background

Symbolic interactionism also provides a conceptual underpinning for grounded theory. Herbert Blumer, a student of George Herbert Mead, used the term *symbolic interactionism* to explain how meanings that people ascribe to things are derived from, or arise out of, social interactions, and actions are based on individualistic meanings (Blumer, 1969, 1986). The benefit of symbolic interactionism in grounded theory is the opportunity to explain the meanings individuals construct and how these meanings influence actions (Charmaz, 2014). Therefore, grounded theory framed within symbolic interactionism was useful in examining the meaning of the human–animal relationship and pet influences on decisions from the perspective of older adults managing chronic conditions. For example, if an older adult symbolizes the pet as a family member, then the meaning of the pet would influence actions and decisions. In this study I sought to understand the actions humans take to maintain the human–animal relationship when managing chronic conditions.

Aims of the Study

The purpose of this study was to explore and describe the influence of pets on older adults' decision making and chronic-health-condition management. The overall aim of the study was to understand how older adults who are managing chronic conditions are

influenced by their pets when making decisions.

Specific aims. A constructivist grounded theory approach was used to access and understand the meanings and decisional processes from the perspective of the older adult managing chronic conditions. The aims of this study included:

1. Describe how pets influence older adults' decision making; and
2. Develop an initial substantive grounded theory framework of the influence of pets on older adults' decision making.

Methodology

Grounded theory uses both an inductive and abductive analytic approach to build theoretical frameworks that are "grounded" in the data (Charmaz, 2014; Corbin & Strauss, 2008). *Induction* is using individual cases to generate patterns. *Abduction* is analyzing all of the data to understand plausible explanations of the data to then generate multiple hypotheses that are either validated or not validate, resulting in the most probable explanation for the observed data (Bryant & Charmaz, 2007). Being grounded in the data requires the investigator to begin analysis simultaneously with the onset of data collection by comparing recent data, concepts, and categories against other data, concepts, and categories from early in the research. This leads to an iterative process of data collection and analysis until theoretical saturation is achieved. Theoretical saturation is not data or thematic redundancy; rather, theoretical saturation is achieved when the developed categories are rich and dense, account for variation, and relationships between categories are robust. The result of grounded theory is a substantive theoretical framework grounded in data (Creswell, 2013; Glaser & Strauss, 1967).

Emergent Design

The term *emergent design* denotes the flexible nature of a grounded theory study. In a grounded theory study, not all research decisions are known in advance. Decisions about sample size, interview questions, and even the research question(s) or aims may evolve as the data are collected and analyzed (Charmaz, 2014). One analytic goal of a grounded theory study is to avoid "forcing the data," but rather to allow the data to guide the analysis. This emergent approach to analysis differs from the more predetermined approaches used in quantitative methods.

Analytical Procedures

In this study I used a prospective qualitative design with constructivist ground theory methodology (Charmaz, 2014) situated in the conceptual underpinning of symbolic interactionism. Data were gathered through semistructured individual interviews with older adults and analyzed systematically to examine pet-related influences on decision making and management of chronic conditions. Through rigorous analysis, this study provided an initial grounded theory framework (Creswell, 2013; Glaser & Strauss, 1967) of the interrelated concepts of the human–animal relationship and older adults' decision making.

Figure 1 provides a visual representation of how a grounded theory study is conducted, and how data are coded and analyzed. The figure also provides a visual representation of elements used to enhance the rigor of a grounded theory study.

This study was about the relationship older adults have with their pets and how pets influence decision making. This relationship represents a loving, integrated partnership that supports each creature's well-being. The older adults in this study were connected to their pets and felt a deep sense of responsibility to ensure that their pet was

cared for in a manner that supported the pet's well-being. By having a pet, they believed their own well-being was enhanced and their life was improved. Pets were an interwoven part of everyday life through

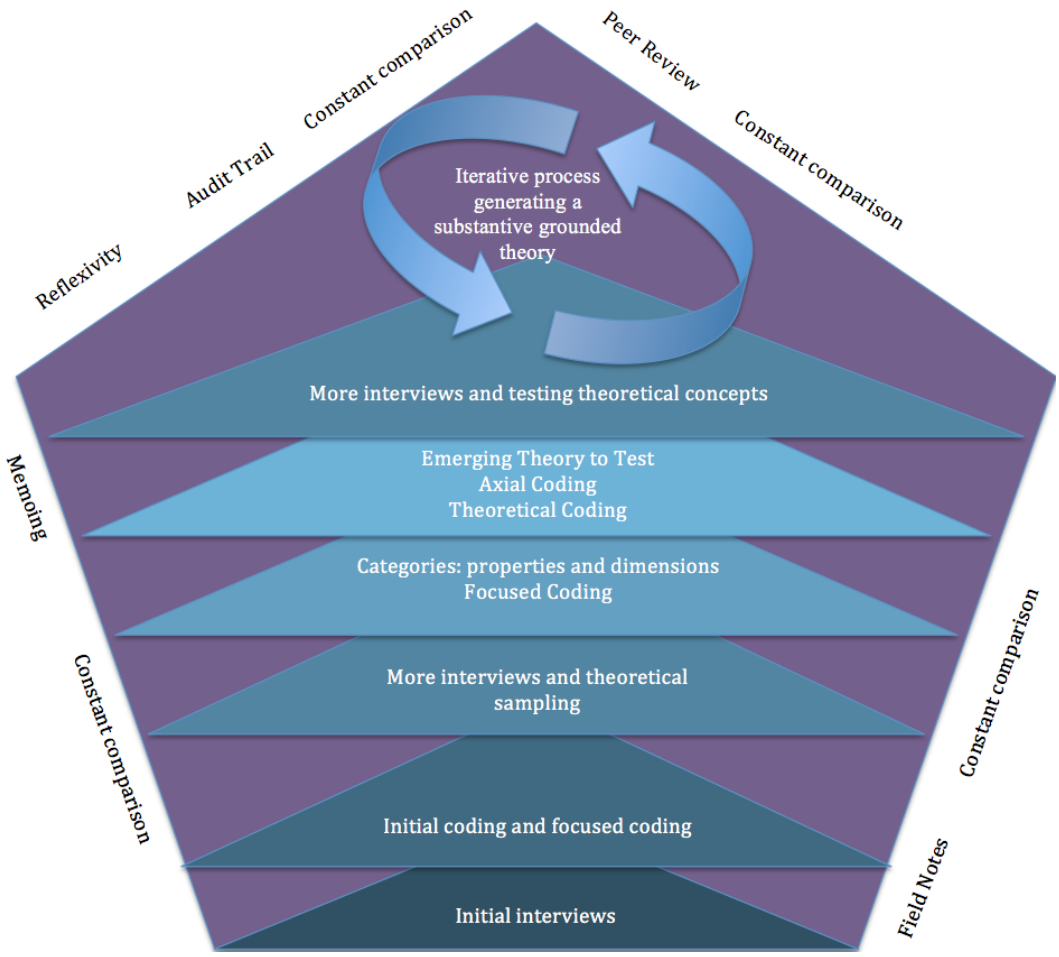

Figure 1. Representation of grounded theory method.

shared experiences and activities. One impetus for this study was to "fill the gap" and uncover specifically how pets influence decisions related to chronic condition management. The participants in this study were unable to differentiate between the influence of pets on decisions related to chronic condition management and general decision making because the responsibility of having a pet was a way of life, a taken-for-

grated way of being. Instead, they described their chronic condition(s), values, and socioeconomic resources as being influential in how they made decisions for themselves and their pet(s).

Constant comparative analysis. Constant comparative analysis, a hallmark of grounded theory, began with initial coding of the first interview transcripts and continued throughout the study to compare between data, codes, categories, and theoretical concepts (Charmaz, 2014). Constant comparative analysis requires the investigator to move between the interviews and codes, constantly comparing across the data. It is an iterative process that facilitates data analysis to move toward the creation of a substantive theory (Charmaz, 2014; Glaser & Strauss, 1967).

Coding. Through the process of coding, I created labels for the data that allowed for a definition of ideas and an early understanding of the data. Through coding, I moved away from the concrete words of the data but at the same time stayed close to the ideas within the data (Charmaz, 2014). Coding is a nonlinear, iterative process of data analysis that moves through initial coding, focused coding, and axial coding (Charmaz, 1990). During *initial coding*, data was coded line by line with special attention to the participant's own words. Using codes that are the same as the participant's language is called *in-vivo coding* (Charmaz, 2014), which may reveal specific meaning for an experience. For example, the term *fur-kin* has been used when describing pets in the context of family (Beck & Madresh, 2008). *Focused coding* is an analytic phase after the initial coding is completed (Charmaz, 2014). Through focused coding, the most significant initial codes are analyzed again across the data, and then further refined to generate categories (Charmaz, 2014).

Categories. Categorizing represents a more abstract analysis than what is generated during coding (Charmaz, 2014). Categories were further analyzed for their defining characteristics, known as *properties*, and range of variation in the properties, known as *dimensions* (Corbin & Strauss, 2008). The properties and dimensions of a developing category were further refined to generate theoretical constructs describing the pet's influence on the decision making of older adults managing chronic conditions. Categories and codes were also delineated to describe the conditions when actions occurred. Uncovering conditions attempts to answer the questions about why, when, and how an action occurs (Corbin & Strauss, 2008). Through *axial coding*, the separate pieces of data from categories are conceptually reanalyzed to construct links between the categories (Charmaz, 2014). Axial coding was used as an emergent analytic strategy to conceptualize links between data and ideas; it was not applied as a strict analytic procedure (Charmaz, 2014). Through the iterative process of constant comparative analysis of codes and categories, a rich theoretical framework was rendered.

Memos and field notes. Memos and field notes served as rich data to be coded for analysis. Memo writing is integral to grounded theory methodology and is used throughout a study to compare data, codes, categories, and theoretical constructs (Charmaz, 2014). Memoing facilitates deeper thinking about codes, the analysis of emerging ideas, and theory construction. Memoing also allows the investigator to reflect on past personal experiences that influence data interpretation, thereby fostering a richer understanding of how codes and categories were developed during constant comparative analysis.

Reflexivity. The use of reflexivity is an integral part of data analysis in grounded

theory (Charmaz, 2014). It allows the investigator to draw on his or her own experiences to make sense of the data. I have extensive experience as a nurse caring for older adults, and drew on past experiences when patients described a pet as being influential in their decision making. Additionally, I have extensive experience as a veterinary technician caring for pets and guiding people with their decision making in times of uncertainty with a pet. I drew on these experiences when making sense of codes and categories before they were elevated to a theoretical construct. I also acknowledged that inherent assumptions and biases from my past personal experiences could influence the study; therefore, I consulted with my dissertation chair, committee members, and an ongoing qualitative research group to ensure that these experiences did not overshadow the data analysis, but instead strengthened my understanding of the data.

Study Design

Population

Participants were community-dwelling adults age 60 or older with at least one chronic condition and a relationship with a pet in which the animal received daily contact. Inclusion criteria were (a) age 60 or older; (b) English-speaking; (c) self-report of at least one chronic condition (e.g., diabetes, heart failure); and (d) self-report of a current relationship with a pet of any species. Exclusion criteria were (a) non-English-speaking, and (b) self-report of a diagnosis of a major cognitive disease (e.g., dementia) or cognitive difficulties limiting the ability to complete the consent form and engage in an interview.

Sampling and Sampling Procedures

Sampling was purposeful, snowball, network, and theoretical. *Purposeful*

sampling is used to specifically select for participants who will yield information-rich data (Patton, 2014); thus, I selected participants meeting the specific inclusion criteria (Creswell, 2013). Purposeful sampling allowed a broad examination of older adults and the influences pets had on their decision making. *Snowball sampling*, a form of purposeful sampling, occurs when participants recommend others who might qualify for the study (Creswell, 2013); for example, participants knew other older adults with pets managing chronic conditions. *Network sampling* is a recruitment technique that leverages personal networks (Fain, 2009). Network sampling was used when nonparticipants become informed about the research and were provided recruitment materials to share with older adults who had pets. In neither snowball sampling nor network sampling did I request contact information; it was the responsibility of the potential participant to contact me for information about the study and eligibility screening.

Sample size. While a set number of participants are not prearranged in grounded theory methodology, at least 20–60 interviews from 15–30 participants are anticipated to provide rich, thick descriptions to develop a substantive theory (Charmaz, 2014; Creswell, 2013). Researchers in previous studies about human–animal relationships using grounded theory have reported as few as 12 (Putney, 2013) and as many as 44 participants (Adams, Bonnett, & Meek, 1999). Nonetheless, in this study, sampling continued until theoretical saturation was achieved to describe pet-related influences on decision making. Theoretical saturation occurred when the data revealed no new ideas, and thus, no more theoretical insights were rendered (Charmaz, 2014). To achieve theoretical saturation, theoretical sampling was used.

Theoretical sampling. *Theoretical sampling*, a hallmark of grounded theory, is a

data-collection method driven by the concepts and themes derived from the data. The purpose of theoretical sampling is to collect data to enable developing rich, robust concepts, uncover variation, and identify relationships and linkages between concepts (Corbin & Strauss, 2008). Theoretical sampling required re-interviewing some participants, recruiting additional participants, and re-examining the data to further explore new theoretical constructs that emerged during data analysis. As a result of theoretical sampling in grounded theory, the final sample size was not predetermined (Corbin & Strauss, 2008). A total of 20 participants were recruited for this study.

Procedures for Recruitment, Participation, and Data Collection

Recruitment. Recruitment took place from July 2016 through April 2017. The proposed recruitment strategy was to recruit from four Oregon Health and Science University (OHSU) family-medicine clinics and the Family Medicine inpatient hospital unit. Prior to the study, I had met with the nurse leaders in those areas and was granted verbal access to recruit; however, after institutional review board (IRB) approval, when I attempted to contact the clinics and hospital to post recruitment materials, I was informed that a request to recruit needed to be submitted for review by the Family Medicine Research Group. A request to recruit was therefore submitted but it was denied, with the special exception of the Richmond Family Medicine Clinic. Due to these circumstances, the recruitment contingency plan was implemented, and recruitment fliers were posted in public spaces such as grocery stores, pet clinics/stores, and senior centers. Via network sampling, recruitment fliers were also distributed by the OHSU Layton Center. Snowball sampling was used as well. Participants responded to fliers and were screened for study inclusion.

A total of 28 individuals responded to the various recruitment methods and were screened for eligibility via phone. Five respondents were ineligible to participate, and 2 did not return calls for eligibility screening. After initial screening, if the inclusion criteria were met, an interview was scheduled. Three eligible respondents were scheduled for interviews, but due to severe weather the interviews were cancelled; rescheduling failed because the respondents did not return calls.

It should be noted that 1 participant screened as eligible. Upon completing the interview and demographic form, however, he was ineligible due to age; yet when asked again about age, the respondent self-identified as 65 years of age. To retain the data collected from this participant, the IRB advised me to submit an IRB modification of the eligibility criteria. After consulting with my dissertation chair, a modification was submitted to lower the eligible age to 60 years; the modification was approved. Because of this, 2 previous respondents became eligible and, per their request, were rescreened and scheduled for interviews. The final sample size was 20 participants. Follow-up interviews were conducted with 7 participants, for a total of 27 interviews.

Written informed consent was obtained prior to data collection (see Appendix B). During the consent process, permission was requested to contact the participants for follow-up interviews. Participants were informed that I, as a nurse, am considered a mandatory reporter by the Oregon state law Abuse Prevention and Reporting; Civil Action for Abuse ORS 124.050 to 124.095 (2015) and am obligated to report suspected elder abuse to the Department of Health and Human Services.

Upon completing each interview, I gave the participant a $20 gift card for a major pet-supply store in appreciation of his or her time; I gave those who participated in a

follow-up interview an additional $20 gift card.

Setting. Interviews took place in the participants' residence or at a place of their choosing. I preferred interviewing them in their residence, to allow me to observe the interaction between the pet and the participant in their natural environment; however, participant preferences were respected.

Data collection. The intent of grounded theory methodology is to generate a substantive theory grounded in the data. Data sources included participant demographic information (see Appendix C), face-to-face semistructured interviews (see Appendix D), investigator memos, and field notes. Demographic data collected were used to describe the participant's gender, age, self-reported disease, type of animal, and length of ownership.

Interviews. Participants were interviewed individually. This was useful to examine a broad variety of participants (Patton, 2014), and was preferred due to heterogeneity of the participants in gender, age, type(s) of chronic condition, and type(s) of pet(s), and allowed for variations when participants described their human–animal relationships.

Face-to-face semistructured interviews allowed ideas to flow freely from the participants (Creswell, 2009; Glaser & Strauss, 1967), thereby generating rich contextual data for analysis. I conducted 27 interviews, including 20 initial interviews (19 in the place of residence and 1 in a public place) and seven follow-up interviews. The 27 interviews lasted between 7 minutes and 93 minutes, for a total of 1,196 minutes (mean = 44 min, median = 43 min). The duration of interviews allowed for prolonged engagement with each participant. All interviews were audio-recorded and transcribed verbatim by a

professional transcriptionist. I reviewed the transcripts for accuracy.

An initial interview guide (Appendix D) served as a prompt to elicit participants' descriptions about the meaning of the human–animal relationship and their perceptions of pet influences on decision making. Examples of initial interview prompts include: *Tell me about your relationship with your pet. What does this relationship mean to you? Tell me about a time when you made a health decision to do something or not do something because of your pet*. Because grounded theory methodology uses an emergent design (Charmaz, 2014), the initial interview questions may change or be modified to check the relationships between codes and categories that have emerged during constant comparative data analysis. For example, some participants described their pet responsibilities as analogous to those in a parent–child relationship, so additional questions were asked to uncover more about their "parental" role in pet ownership. Thus, additional questions were asked to determine if others were having a similar experience.

Memos. I collected field notes and memos, which were audio recorded and/or written. Field notes were recorded immediately following the interview to document details of the environment, such as the participant's interactions with his or her pet(s). Brief notes were written during some interviews to capture nonverbal actions such as smiling, which might not be captured on an audio recording. After the interview, I reflected on the methodological process of what went well and what needed improvement for the next interview. Memos were written regularly throughout data collection and analysis, and served as both data and an audit trail of analytic thinking during the study.

Data-Analysis Procedures

The data analysis software Atlas.ti (Franzosi, Doyle, McClelland, Putnam Rankin,

& Vicari, 2013) was used to manage the written transcripts, field notes, and memos. Atlas.ti facilitates analysis by enabling management and organization of written data, and analytic codes and categories. It is an organizational tool rather than a substitute for investigator analysis and interpretation,

I read and compared transcripts of the interviews against the audio recordings for accuracy. Initial coding of the first five interviews yielded 151 codes. These codes were reviewed for overlap or conceptual similarity, then collapsed into 49 focused codes. These focus codes were used to code future interviews; for example, the initial codes of *always having a pet* and *picking out a pet* were combined into the focused code *deciding to have a pet*. This focused code was later elevated to become a theoretical code of *deciding to have a pet*, with several processes that included participant views about *always having a pet* and *picking out a pet*. This inductive and abductive approach to coding allowed me to identify smaller parts of a process and to reveal a more complex process than initially described by the participants, shedding light on the taken-for-granted intricacies involved in decision making.

Focused codes and early emergent categories were further explored with participants to gain a better understanding of the variation in early ideas; for example, the first 4 participants spontaneously described (or implied) their pets as being akin to children, and their responsibilities and decisions analogous to parental responsibilities and decisions; the 5th participant give such a description. To learn more about the early focused code of *being a pet parent*, new participants were asked, *What do you think about the idea of being a pet parent?* Responses revealed that some participants did not support being labeled a pet parent. Probing further about how participants did or did not

identify themselves and the roles they played in connection with their pet(s) provided a richer understanding of the variation of this early code. Focused codes were further compared and combined to create categories describing how pets influence older adults' decision making.

Categories were created when focused codes were compared and categorized into more abstract constructs; for example, the category *Maintaining Responsibility* emerged from early focused codes of *being a pet parent, deciding to have a pet, accepting pet-keeping responsibility,* and *incurring the cost of pet care*. The more abstract construct of responsibility could be found in these focused codes. *Maintaining responsibility* became an emerging theoretical category supported by four theoretical codes of *deciding to have a pet, providing enriching pet care, managing financial responsibility,* and *arranging care for the pet*.

The categories were tested and explored with new participants and in follow-up interviews. Axial coding (comparing across categories) and theoretical coding (applying theoretical codes to earlier data) were used to arrange and rearrange the categories to create early renditions of the emerging theory. Early theoretical renditions included *aging in place with a pet, maintaining responsibility,* and *living the pet lifestyle*; however, none of these early theories seemed to wholly bring together the categories developed to describe the experience of older-adult pet owners. During a later initial interview, 1 participant described her pet as "tak[ing] up a lot of my empty spaces." This initial in vivo code was explored as a focused code, but eventually was elevated to the final theoretical concept of *filling the empty spaces*. Going back to the data, I noticed that an early initial in vivo code was the phrase *filling the void*, but this failed to capture the full

experience of older adults with pets because pets filled more than a void, pets filled time, emotion, and environment.

Memoing continued throughout data analysis, with being written about the ideas generated during data analysis. These could be analytical, allowing me to write about emerging concepts and make connections among the data, or they could be methodological, providing written documentation of methodological decisions made during analysis. Some memos were narrative in structure, while others were charts and tables; for example, I made concept charts for each participant representing excerpts from his or her interview(s) that contributed to the emerging theory.

Qualitative Rigor

My actions throughout the study contributed to its rigor. Data were collected from participants who had a relationship with their pet and were managing a chronic condition. As the interview data were analyzed, I used theoretical sampling as a means to re-interview existing participants to gather more information or test new ideas generated from the data, thus identifying gaps in or linkages between ideas. Data were analyzed using constant comparative analysis, an iterative process that began with the first interview and concluded when a substantive theory was rendered. Data were collected until theoretical saturation was reached in order to ensure enough depth and breadth for analysis. Attaining theoretical saturation demonstrates credibility if sufficient data are gathered to warrant theoretical claims. The process of memoing provided evidence of my thoughts, ideas, and questions during the analytic process (Charmaz, 2014). Memoing also served as an audit trail, confirming my decisions throughout the analytic process and supporting rigor of the study (Charmaz, 2014; Putney, 2013). Additionally, I met

regularly with my dissertation chair and committee to discuss emerging analytical findings. It was an accumulation of these intentional actions that contributed to the rigor of the study.

The research process was also evaluated using Charmaz's (2014) criteria for grounded theory studies: credibility, originality, resonance, and usefulness. Charmaz recommended the following questions for each criterion. Table 1 provides a list of the questions recommended by Charmaz (2014, pp. 337–338) for each criterion and how each criterion was achieved in the study.

Protection of Human Subjects

To protect the rights of study participants, OHSU IRB approval was obtained before beginning the study. Prior to interview, participants were provided an informed-consent document about the study purpose, procedure, risks, benefits, and the voluntary nature of participating. Written informed consent was obtained prior to interview. If participants appeared burdened at any point during the interview, they were reminded that they could take

Table 1

Charmaz's Criteria for Grounded Theory Studies

Criterion	Charmaz's Questions	Demonstrated Meeting of Criteria
Credibility	• *Has your research achieved intimate familiarity with the setting or topic?* • *Are the data sufficient to merit your claims?* • *Have you made systematic comparisons between observations and between categories?* • *Do the categories cover a wide range of empirical observations?* • *Are there strong links between the gathered data and your augment and your analysis?* • *Has your research provided enough*	Credibility was demonstrated through writing memos, which served as an audit trail of analytic thinking and analytic decisions. Through member checking during participant interviews, theoretical claims were endorsed. Member checking with peers in a dissertation seminar group and with experts in the field of gerontology and human–animal relationships further authenticated the theoretical claims and merits of the study.

	evidence for your claims to allow the reader to form an independent assessment and agree with your claims?	
Originality	• *Are your categories fresh?* • *Does your analysis provide a new conceptual rendering of the data?* • *What is the social and theoretical significance of this work?* • *How does your grounded theory challenge, extend, or refine current ideas, concepts, and practices?*	Originality was demonstrated by the new insights offered about pets' influences on the health decisions of older adults with chronic conditions. The findings contribute new knowledge about human–animal relationships in a context of decision making that has not yet been considered by the human–animal research community.
Resources	• *Do the categories provide fullness of the studied experience?* • *Have you revealed both liminal and unstable taken-for-granted meanings?* • *Have you drawn links between larger collectives or institutions and individual lives, when the data indicate so?* • *Does your grounded theory make sense to participants or people who share their circumstances?* • *Does your analysis offer them deeper insights about their lives and worlds?*	Resonance was demonstrated when members of the dissertation committee (experienced in research on decision making, older adults with chronic disease, grounded theory, and human–animal relationships) agreed that the categories and grounded theory made sense and accurately reflected the influences of pets on the decision making of older adults managing a chronic disease.
Usefulness	• *Does your analysis offer interpretations that people can use in their everyday worlds?* • *Do your analytic categories suggest any generic process? If so, have you examined these generic processes for tacit implications?* • *Can the analysis spark further research in other substantive areas?* • *How does your work contribute to knowledge?* • *How does it contribute to making a better world?*	Early findings of the study were presented to clinicians caring for older adults with chronic conditions. These health professionals found the theoretical constructs helpful when considering possible pet influences on health decisions. Furthermore, this research could be used to influence change in existing policies about how pets are viewed in the context of the healthcare system (e.g., animal visitation policies in the hospital).

breaks, stop the interview, choose not to answer questions, and/or withdraw from the study at any time. Because participants were asked questions that could possibly cause painful memories, if they appeared distressed, I (a nurse with clinical experience in caring for older adults with chronic disease) reminded them that they could stop at any time and offered comfort and reassurance through empathetic listening. A Supportive Resource list (Appendix E) was provided in the event the participant remained distressed.

Data management. All interview transcripts were de-identified after the transcription process and pseudonyms were used to maintain participant privacy. Data from the demographic questionnaires were de-identified and coded with the same pseudonyms as the interview data. Paper documents and printed transcripts were stored in a locked file cabinet when I was not reviewing the documents. All electronic data were filed in an encrypted, cloud-based file system approved by OHSU. The files were accessed on my password-protected computer, with the computer set to auto-lock after 5 minutes of inactivity.

This study was not interventional, and therefore participants did not experience direct benefits; however, the opportunity to talk with me and share experiences about chronic-condition management and relationships with pets, as well as discuss future possibilities about their conditions and pets, may have been beneficial. Data generated from this study may also benefit healthcare professionals by raising awareness of pet influences on the decision making of older adults managing chronic conditions.

Summary

This was qualitative investigation using grounded theory methodology. Participants were recruited using various sampling methods. Semistructured, individual interviews were conducted with 20 community-dwelling adults aged 60 or older, with at least one chronic health condition and a relationship with a pet. Participants were asked to describe past experiences, or conceivable situations, about how their pet had influenced their decisions. Data collection and analysis occurred concurrently, using an inductive/abductive analytic process of constant comparison, coding, categorizing, and theorizing. Theoretical sampling continued until theoretical saturation was achieved and

no new concepts emerged from the data. An initial grounded theory was refined that accounts for variation within the phenomenon. In the following chapter I detail the results from this study and the initial grounded theoretical framework.

CHAPTER 4: RESULTS

The purpose of this chapter is to present study findings and describe components of the initial grounded theory: *Filling the Empty Spaces: A theory of human–animal interactions in older adults*. The specific aims of this study were to (a) describe how pets influence older adults' decision making and chronic-condition management, and (b) develop an initial substantive grounded theory framework about the influence of pets on decision making.

Data Collection

Participants

Data were collected from the 20 participants in this study, all of whom were retired from the workforce. Participants ranged in age from 63 to 99+ years. The majority were White women who (a) were not currently married, (b) were parents, and (c) lived in a senior-living apartment. Most participants had a dog, and the most common chronic conditions were cardiovascular disease and arthritis. A majority of the participants were well educated and considered to be middle-class; a few lived below the 2016 federal poverty level, and some others preferred not to provide information about their income. See Table 2 for a breakdown of participant demographics.

Table 2

Participant Demographics

Characteristic	*n*	%
Age in Years		
60–69	7	35
70–79	6	30
80–89	6	30
90+	1	5
Gender		
Male	4	20
Female	16	80
Racial/Ethnic Background		
White	18	90
Black	1	5
American Indian	1	5
Education		
Some college or less	13	65
College degree	7	35
Marital Status		
Married	3	15
Single	17	85
Parent		
Yes	12	60
No	8	40
Housing		
SLA	5	25
SLA-PC	5	25
House	6	30
Apartment	4	20
Chronic Illness		
Cardiovascular	11	55
Gastrointestinal	2	10
Pain	3	15
Neurologic	5	25
Musculoskeletal/Arthritis	8	40
Endocrine/Diabetes	6	30
Psych/Mental Health	4	20
Type of Pet		
Dog	10	50
Cat	8	40
Other	2	10

Note. SLA = senior living apartment; SLA-PC = senior-living apartment with progressive care options.

Study Findings: The Influence of Pets on Decision Making and the Management of Chronic Health Conditions

All study participants had at least one chronic condition and a majority had multiple chronic conditions. When directly asked about their pet's influence on the

management of their chronic health condition(s), many noted that their pets were not influential. Participants were unable to relate to their pet(s) as a direct influence on how they managed their chronic condition(s); they described managing their chronic condition(s) through medication, diet, and physical activity. Although pets were nearby during medication administration and meal times, they were not influential in medication- and dietary-management decisions. Pets, specifically dogs, were influential regarding walking behaviors and lifting restrictions (i.e., physical activity).

Managing chronic health conditions with pets was not specific to the type of condition, but instead was primarily about managing pet care. Participants described how they managed various pet-care activities by making modifications in how they carried out pet-care activities or by requesting assistance to provide pet care. They envisioned that they would retain their same level functionality even as their chronic condition progressed. Alternatively, they would adapt their environment or activities as necessary in order to care for themselves, with the intention to remain living with their pet. In this study, participants described more emotional benefits of pet ownership than physical benefits.

Because their pets were so integrated into the participants' lives, it was challenging for them to describe how their pet specifically influenced their chronic-condition management activities; however, when probed further or asked to share a typical day, it was revealed that pets did influence their health behaviors and activities, particularly related to managing their pets' needs rather than their own. Also, pet care (e.g., feeding the pet, walking the dog) was part of their routine activities of daily living and their instrumental activities of daily living; as such, pets influenced how participants

conducted these activities. For example, in their daily chronic-condition management, dogs influenced participants' physical activity, specifically related to their walking behaviors. Some people walked more often because their dog wanted to walk; a couple of others walked less, but they did so to accommodate their pet's needs (e.g., the dog stopped to sniff frequently, preventing a fast-paced walk) or limitations (e.g., an arthritic dog could not walk far distances). Cats provided welcome companionship, and those participants with physical limitations developed creative solutions in order to care for their pet; however, compared with dogs, cats were less influential on participants' daily chronic-condition management.

Pets influenced planning ahead for being away during medical procedures (e.g., surgery), and making modifications to take care of the pet postoperatively. Arranging for other to provide pet care occurred when individuals were recovering from surgery, injury, or an unexpected fall. For some, activities were modified so the older adult could still perform the necessary activities related to pet care. Pet care included dog walking, preventing self from tripping over the pet, and managing any heavy lifting required for pet care (cat litter, pet food, cleaning the frog tank).

Participants described various ways their pets influenced physical activity, including walking, bending, or lifting. Dogs were influential in adherence to physical activity recommendations, specifically walking behaviors. To ensure safety for themselves and their pets during mobility, participants were mindful of their pet's location. They accepted that living with pets required bending down to clean up pet messes, which could be uncomfortable in some chronic conditions such as arthritis, but was an expectation of being a responsible pet owner.

Some participants noted that their own physical limitations impacted their ability to walk, and thus their dog-walking behaviors. Other issues were lifting the dog into the car with arthritis, walking the pet when experiencing knee pain, allowing a cat to lie on painful areas, and walking at the dog's slow pace instead of the recommended or desired faster pace.

In sum, pets were interwoven into the participants' everyday activities. Decision making in chronic-condition management was about the older adult's self-care and ensuring that the pet was cared for. Pets were so intertwined in the participants' lives that they were an integrated part of the whole experience. Although managing chronic conditions is about managing one's own self-care, participants in this study also described an innate responsibility to also ensure that their pet was well cared for. In the following section I discuss the specific findings for the components of the substantive grounded theory that emerged from this study.

Emerging Theory

The emerging theory, *Filling the Empty Spaces: A theory of human–animal interactions in older adults*, represents the experiences and decisions of older adults with pets. *Filling the empty spaces* is the core conceptual process and reflects participants' relationships with their pets and how this relationship influenced decision making. Personal values and resources also influenced decision making. Pets were an important part of the lives of the older adults in this study, and a fundamental part of their daily activities; as such, pets were impossible to separate from the ongoing activities and decisions inherent in everyday life. Pets filled the empty spaces or "voids" experienced as a result of retirement and social-network shifts. Moreover, because of their emotional

connection with their pets, participants were filled with a sense of purpose and meaning from providing nurturance to another being. They also explained the numerous responsibilities associated with having pets and the independence required to be an older-adult pet owner. They emphasized the impact their pets had on their own well-being and the impact they had on their pet's well-being; they further described the positive impact pets had on their health and the potential harm their pets could pose to their health.

Filling the empty spaces was the overarching core conceptual process in this emerging theory about the human–animal interaction for older adults. The core concept occurred in the contexts of time, emotion, and environment. Within the core concept are three major categories and 10 processes. The category *managing responsibility* has four processes: *deciding to have a pet*, *providing enriching pet care*, *managing financial responsibility*, and *arranging pet care*. The category *remaining independent* has three processes: *making modifications*, *living in the moment*, and *utilizing social-support resources*. The category *impacting well-being* has two processes: *engaging with the pet* and *being motivated by the pet*. Participants also reported specific conditions required to be an older-adult pet owner, and expressed that pet ownership had positive and/or potentially harmful impacts on health (see Figure 2). Although the emergent theory is presented as discrete sections, the relationship between the contexts and categories are not discrete; instead, they at times are co-occurring.

Figure 2. Filling the Empty Spaces: A theory of human–animal interactions in older adults.

Contexts of Empty Spaces

Participants shared the many ways their pets filled their unfilled time, met their emotional needs, and environmental space. Participants spent most of their day interacting with and caring for their pets. Their relationship with the pet was

characterized by a strong emotional connection and ongoing reciprocal affection in the dyad. Their homes were often adorned with pet-related products such as pet toys, clothing, bedding, and food to ensure that the environment was conducive to providing for their pet's needs and comforts.

Time. Participants described spending extensive time with their pet. Time represented both the amount and instances of time spent with their pets. A majority (*n* = 17) lived alone, and some participants reported spending more with their pets than they spent with other people. They incorporated their pets into their daily routines and schedule and tried to minimize time away from their pets. As expressed in the following example, Bruce, who lived in a house with his wife and their two dogs, reflected on how his dogs filled his time:

> We walk. We watch a lot of sports on TV. We're sports fans. . . . Yeah, so they're always around. Both [dogs] are always around, you know, when I'm watching [TV]. . . . Now that I'm retired, you know, all day, all the time . . . they're always around.

In their day-to-day lives, participants regularly incorporated their pets into their many activities and daily routines, from watching television to eating and sleeping together. This is also exemplified by Raymond, a gentleman in his 60s living in an apartment with his dog, Rosie, who was his constant companion:

> Well, Rosie [current pet] and Rosa [former pet] were twenty-four/seven with me. They did everything I did. . . . When I'm taking a shower, she will climb in the shower, and she sleeps with me. She sits on the couch when I'm reading, right beside me. She'll put her head on my lap and go to sleep. But it's like, rarely do I

> even come down to check the mail that she doesn't come down with me. So we're together almost twenty-four/seven.

Similarly, Francine, a septuagenarian, living with her dog, Franklin, in an apartment, spent most of her time with Franklin: "He sleeps in bed with me and he eats with me. We play together." These are all examples of how the older adults spent time with their pet(s).

In addition to spending time with their pets, participants took their pet's well-being into consideration when planning their day. Albert lived alone in an apartment with his dog, Alice. Reluctant to leave Alice alone for long periods of time, Albert carefully timed his day and scheduled errands accordingly:

> Even when I go to the store, if I have like several places I want to go, I figure, "Okay, it's going to take me so much time to do this," or something like that. Then if I have grocery shopping, especially, I will do the grocery shopping, come home, take her out for a little walk or something to spend a little time with her, and then I will go out and do the rest of the stuff I want to do.

Participants' also considered how their social and other activities could impact their pet. This was true especially when their activities occurred away from home. Violet lived in an apartment with her dog, Vern. Although she actively participated in the senior community where she lived, she placed limits on her social calendar to avoid leaving Vern alone. She explained,

> Well, mainly I don't do as much as I could do as far as entertainment. You know, I just don't go out at night. . . . I go to meetings, and I'm quite involved here [in the senior community]. And so, I feel I leave him a lot during the day, and since I

> have to leave him home . . . I just don't go out at night. There's movies and all kinds of activities here, and I pick and choose just so that I'm not gone too much, which I think is fair. . . . If you're going to have a dog, you should be with him.

Two participants specifically mentioned that they preferred spending time with their pets over spending time with other people. This view was expressed by Josephine, a woman in her 80s who lived in her house with her cat, Jordan, when she responded to a question about choosing an animal over a person: "No, I would prefer an animal over a person for a friend. They're more dependable."

To summarize, in the context of time, participants spent several or even many hours each day in the company of their pets, integrating their pets into daily activities and routines. Retirement meant most participants were home more, and thus spending time with their pets was a regular, welcome part of their lives.

Emotion. Emotion was described as a feeling of sentiment and caring for their pet. Participants verbally expressed their deep affection for their pets, and demonstrated their feelings by kissing and cuddling them. During their interviews, many participants said they loved their pet and their pet loved them. Participants' pets filled the emotional empty spaces they experienced from their shifting social networks. For example, 12 participants had children who were grown and living their own lives; others experienced diminishing relationships related to divorce, widowhood, or death of their family members and friends.

In her late 60s, Gladys lived alone in an apartment with her cat, Goldie. She remarked on the importance of her cat because she was estranged from her family, and noted the reality that older adults' relationships are lost due to death:

> Most people have relationships [with other people] that are important to them, but I'm not very close with my family, so my pet is very important to me. . . . And as you get older, everyone is dying around you, but the cat, you know, so yeah, the pet is important.

Wanda was a divorced woman in her 80s who lived in an apartment with her cat, Wilber. Throughout the interview, Wilber sat on Wanda's lap while she stroked his fur and talked. During the interview she proclaimed, "I love him." Wanda's children and grandchildren visited her, but she commented on their busy lives and explained how Wilber helped her fill her empty space:

> My kids aren't physically too far. I mean they aren't too far, but the one that is near us is so busy all the time. She's always working. And the one [out of town] . . . she's a little further, and now her grandson and her daughter live there also, so it's a very busy household. So she doesn't have time to chat so much, so I talk to Wilber and we discuss things and, you know, he's a being. You know, not a person, but he's a being. . . . I just feel there's, it's not empty here when he's here.

Thus, Wanda's relationship with her cat not only filled the emptiness of physical space; it also fulfilled an emotional space by providing connection to and companionship with another being. Similarly, Josephine, a woman in her late 80s, announced that her cat Jordan was "the love of my life." Although she was widowed and living alone in a house, she was not lonely:

> Well, it's just some comforting. He's such a companion. I mean I don't have anyone else around. My daughter comes every Thursday night for dinner, but other than that she doesn't come over because she's working. . . . The fact that I

> have him, I'm just never lonely. I just, no, I can't imagine ever being lonely. I guess, I don't know if everybody loves their pet like I do.

To summarize the context of emotion, participants valued the companionship and emotional connection they shared with their pet. They enjoyed stroking the pet's fur and being around their pet. During their interviews, many pets sat in the lap, at the feet, or by the side of the participant. Many participants made proclamations of adoration toward their pet(s).

Environment. The physical space older adults shared with their pets represents the environmental context. All of the participants lived in settings that allowed pets, and many described how their environment was structured to accommodate their pet(s). Gladys expressed a preference for living in a different apartment that would benefit both her and her cat, Goldie:

> I moved back here because it was cheaper, but I'm on the waiting list to go back over there only because I need a flat area; I don't need to be going up stairs all the time. But anyway, so Goldie will go with me over there. She's been there before. And actually, I like the layout for the litter box better. They have a storage room in the apartment where you can put the litter box, as opposed to having it by the toilet, which is kind of disgusting.

A couple of participants with dogs placed absorbent pads near the door in case their dog had to eliminate urgently. Most participants described having pet-specific toys, furniture, or bedding available in the environment. Violet described the dog bed she had in the bedroom: "He's a bed hog. I have a single bed and he takes three quarters of it. But he has his own bed in there. So, when he gets too warm, he gets down."

In sum, the contexts of time, emotion, and environment are the empty spaces participants filled through their human–animal interactions with their pets. They spent many hours each day, or even all day, with their pets. At times, participants arranged their days and activities to ensure that their pet was not alone for too long, and/or to accommodate their pet's needs for exercise or elimination. They loved their pets and expressed their feelings of emotion through touching, petting, and holding them, and by verbalizing their love for them. Furthermore, they arranged their environment or added to the environment for the pet's benefit.

Maintaining Responsibility

Maintaining responsibility is defined as integrating pets into everyday life and ensuring that the pet was cared for according to the standards set by the participant. This category is about a deep sense of responsibility people have to provide care for their pet. Some participants described the responsibility of caring for a pet in terms of parental responsibility. Being responsible meant that participants had to spend money on their pets. Pets relied on them to provide care such as food, water, housing, veterinary care, and enrichment activities such as walking or playing. They rarely expressed feeling burdened by the responsibility of caring for their pets. When participants described a burden, it was often downplayed or excused as an inherent part of being a pet owner. This category has four processes: *deciding to have a pet*, *providing enriching pet care*, *managing financial responsibility*, and *arranging care for the pet*.

The older adults in this study expressed the importance of being a responsible pet owner and illuminated the various ways they upheld their responsibility. The responsibility of pet ownership included making decisions about the type of pet,

providing enriching pet care, managing the financial aspects of care, and arranging pet care when they were away. Among participants, there were varied standards for enrichment and differing financial resources. Being responsible meant providing proper nutrition, ensuring that the environment was enriching, engaging in activities with the pet, and spending time with the pet. In their absence they ensured that a trusted individual cared for the pet. Responsibly caring for their pet was an expectation in their everyday decision making and a consideration should they need to be away from it.

Deciding to have a pet. Participants wanted to be pet owners. Some planned to have pets through the rest of their life, while others had no intention of taking on the responsibility of a future pet. Bruce reflected on how his view about having pets differed from the views of his peers:

> I have a lot of friends that are, you know, most of my friends are my age, you know, so everybody is retiring and stuff, and the dog that the kids grew up with . . . the dog gets old and dies, then they don't have a dog anymore. . . . And I just can't imagine going that route.

Albert, a man in his early 70s, adopted his dog Alice after his neighbor died, because he was concerned about what would happen to Alice. Before adopting her, Albert had no intention of getting another pet at that time in his life. The substantial obligation associated with pet ownership and prior experiences with pets who died were other factors that deterred him from getting another pet; yet, he changed his mind:

> Well, I have had three other dogs in my life, and it's really hard in their later years to try and take care of them and everything. Then they have to put them down or whatever. I didn't want another pet. She [Alice] was going to be sent to the

> pound, and I didn't want that. I had taken care of her a few times [in the past] . . . so I took her. Otherwise, I would not have a pet. . . . It's too emotionally upsetting.

Participants described the process of their deciding to have a pet. For some, pet ownership was a constant way of being: they always had a pet in the past and/or they expected to always have a pet in their life in the future. For these individuals, choosing to have a pet was a reflexive process. Other participants described a more contemplative process when they were unexpectedly given a pet or were asked to adopt one from someone who needed to relinquish it. Participants were also influenced by the specific characteristics of the pet (e.g., size) and the sense of being able to care for the pet. Interestingly, for some participants, their age and chronic condition were less influential in their decision to adopt their current pet or obtain one in the future. The reasons older adults gave for not having pets in the future were related to not wanting the responsibility, their imagined inability to care for a pet in the future, and their intention to spare themselves from the grief that occurs when a pet dies.

Reflexive process. Nine participants expressed a reflexive decision to obtain another pet and most intended to always have a pet. They decided to adopt another pet because they had euthanized a former pet or simply wanted another one. For those who were lifelong pet owners, or who decided in adulthood that they were a "pet person," the decision to obtain a new pet was inevitable because they were unable to imagine their life without one. Denise described her expectation of having a cat for the remainder of her life, as she was a lifelong pet owner: "I have had cats in my life since I was about seven years old."

Contemplative process. Ten individuals were more contemplative about adopting their current pet; most of them had been asked to adopt. Unsolicited requests required participants to decide if they could endure the loss of another pet, or if they were at a point in their lives to take on the responsibility of pet ownership. A majority of these participants had intended to remain without a pet or were undecided about adopting a pet in the future; most were protecting themselves from suffering future grief and loss, Margret recounted, "I thought I would never have another animal because it was so heartbreaking when she [Madeline] died, but . . . now I have Merlin." Likewise, Patricia noted,

> I've had a dog for like, eighteen years . . . and we had to put her to sleep. And so I had thought, "Well, that's it. No more. I couldn't go through that again." . . . So Petunia came over, and we looked at her, and she's been here ever since. She's been here ever since. Yeah, we were gonna do a two-week trial, but she never left. She's still here.

Acquiring another pet was either a reflexive choice, because they had always had pets and wanted another one, or a contemplative decision, when they had an unsolicited request to acquire a pet when they had intended to remain without a pet. The decision to remain without a pet was more related to not wanting to experience grief upon the loss of the pet and less about the participant's age, functional ability, or chronic conditions; however, the participant's age, functional ability, and/or chronic conditions did influence the types of pet or the desired characteristics of the pet.

Participant and pet characteristics. Participants reported seeking specific characteristics in a pet, such as the pet's age, size, length of fur, and personality. These

preferences related to the participant's ability to care for the animal; for example, some chose an older pet because they did not require as much training or need to be played with or exercised as much as younger pets. Lois commented, "I want a lap cat and I don't want a kitten. They require too much care and I don't have the energy to play with them the way they need to be played with." Most participants with dogs selected a smaller dog because of their own physical limitations. Kathy described her reasons for selecting a smaller dog:

> I wanted a smaller dog, not a bigger dog, because I got osteoporosis now and I can't lift heavy things. And I like to be able, if I have to lift the dog onto the bed or off the bed, or if I have to lift the dog to put him in the bathtub to give him a bath, that's the thing. So, it was important that I have a smaller dog at this point in my life. And I see that with a lot of elderly people: They tend to have smaller dogs.

Participants' concerns about the length of their pet's fur related to shedding and grooming, with shorter fur requiring less grooming and shedding less. Opal wanted to have a small dog she could pick up that also did not shed:

> Ophelia does not shed, so it was okay. I didn't want a dog that was going to be heavy, in case she got sick and I had to pick her up, so she couldn't be more than 25 pounds. She's 22 pounds, so she fit the bill.

Participants with cats preferred personalities that allowed them to hold, pet, and cuddle them. Josephine explained:

> I was looking for another cat because I would never be without one, not now. So it [card on the adoption cage] said he was a lap cat and he loved to be held like a

> baby, and that's what I wanted, you know, to love [him] up. I kiss him, but I have to reach down to kiss him.

For some participants, specific characteristics were sought because of their particular living situation, as some lived in a place with pet size restrictions. Violet noted, "Living here, I was only able to have a less than twenty-five-pound dog." Other participants described wanting more than one pet or a wished for a different species of pet, which they could not have due to housing restrictions, limitations in the size of the home, or their own physical limitations. Josephine explained why her pet was a cat, even though she preferred a dog:

> Well, I just think that if you can't have a dog, having a cat is a substitute. I won't say better, because I would prefer to have a dog, but I would not be able to run it. And I have a fenced yard, but it might get out and I could not live through that, if it got out.

Protecting self from grief. While sharing their decision to have their current pet, most participants also reflected on their former or deceased pets, comparing and contrasting the current pet with their former pet, and/or recalling the bond they had experienced with the former pet. Raymond shared his ongoing interaction and connection with his deceased pet:

> Rosa was cremated and I have an urn with her picture beside it. They brought her [paw] prints and I kept snips of hair, and so I'll do the same thing with Rosie. . . . Every morning, I say "Good morning" to Rosa, and every night before I go to bed, I say "Good night" to Rosa, and I'll do the same thing with Rosie.

A few participants described rituals or memorials they used to remember, honor,

and celebrate their former pets. Reminiscing symbolized an ongoing relational tie with the pet even after death, suggesting that former pets remained integral to their life. Overall, participants' initial decision to adopt their current pet, be it through a reflexive or a contemplative process, took into consideration whether or not they wanted the responsibility of pet ownership, their desired pet characteristics, their ability to care for a pet, and their willingness to endure grief should their pet die before them.

Providing enriching pet care. Responsible pet ownership required participants to be attentive to their pet's basic needs and ensure that the pet was well cared for. Some explained that their pet-keeping routines extended beyond providing basic pet care such as food and water, and included activities that enriched their pet's life, such as playing. Participants varied in valuing and accomplishing pet enrichment, but each activity required decision making.

***Parental terms*.** Daily pet-care obligations were often described in terms of parental responsibility, equating pet care to caring for a dependent child. Some participants also referred to themselves as *Mommy*, *Mama*, or *Daddy*, and their pet as *child*, *kid*, *baby*, or *little boy*. For some, their pet filled the role of a child or constant familial companion; others, however, saw their pet as a "buddy." While the majority of participants endorsed the role of being a pet parent, two participants were emphatic that their pet was not a child or family member. Margret noted, "Well, I take care of him, but I don't feel like I'm his mother. I just think we're buddies." Similarly, Lois explained that she did not consider her cat a *baby*, *family*, *companion*, or *partner*, noting, "She simply is a pet and I don't consider her my baby or anything else about it." Lois expressed the belief that her relationship with her cat was about nurturance, however: "I think a lot of it

is just to nurture, and I am able to nurture her, which means a lot to me." Regardless of whether participants espoused the idea of being a pet parent, all of them described providing pet care as an inherent responsibility of pet ownership.

Although some participants described their pets in human terms, talked to their pets, and engaged in shared activities with their pets, they also understood that their pet was an animal. Cora noted, "She's very much a part of my family. I have learned over the years, it's better to remind them every once in a while that they're a dog. Because they can take over." Likewise, Irene said,

> Well, she's just like a member of the family to me. I take her with me when I can, and I would not like to think of her not being with me. Of course, I know she's a dog—I'm not an idiot—but she's, they understand a lot of what you say. I think animals can be very much a part of your life, and I just love her. That's why she's important to me.

There was juxtaposition between the inferred human qualities of the pet and the pragmatic animal characteristics of the pet. Participants reconciled this incongruence by noting that their pet was a sentient being. Raymond captured this by saying, "Every living animal—every living being on this earth—has a soul, and I think that's very true, especially with the dogs."

Food and water. Providing food and water to a pet may seem like a mundane activity requiring little thought or decision, yet upon further exploration, for the older adult the process can be complex, requiring both time and financial resources. Providing food for a pet required decisions about what kind of food to feed and how often. The pet's veterinarian was often a source of dietary recommendations. A couple of

participants had pets that required a special diet. Josephine's cat, Jordan, had sensitive skin, so she was searching for food with omega oils; but it was not just finding the right food—she also had to find food that her finicky cat would eat:

> And then Jordan only wants turkey or chicken. I mean, he will eat the juice off of a can of salmon, but will not eat the salmon. Now I've got to go down to the vet and get this canned food that has more omega in it, but I have to put it in the blender. You know, it's already pretty smooth, not real smooth, but I will put it in the blender, add water to thin it down, then he will eat it. But just to put it in the dish? No, he would not eat it. So I blend it.

Cats were not the only pets with finicky tastes. Francine was on a fixed income. She described purchasing less expensive food for her dog, but he preferred a specific brand:

> The only thing I buy is the Iams canned food for him. I've tried cheaper ones, and he didn't like them and so, you know, like Alpo. But he likes the Iams, and he gets a variety of different flavors of it.

Four participants described actually cooking for their dogs. Violet wanted to cook for her dog, Vern, because she was concerned about the potential toxins in commercially prepared food from overseas: "That just kind of scared me, so I started doing my own thing." Opal enjoyed cooking, so she would cook for the both of them: "I cook for her. I cook for me. I like to cook." Raymond's dog, Rosie, had a sensitive stomach, which required a special diet that was easily digestible: "She really needed a very easy diet that she could digest. So, the sweet potato and the chicken and cheese was the vet's idea." On the other hand, Cora used to cook for her dog, Candice, but stopped because her

veterinarian advised against Candice eating "human food."

Ester described the unpleasantness of preparing wet cat food, which she found to be messy and to "smell," yet she tolerated the food preparation because the wet food was used to administer her cat's medication. For some participants, the routine process of feeding included not only specific foods, but specific times at which they fed; others left food out: "I just keep my cat's food bowl full, and she eats whenever she wants to."

In addition to feeding, some cat owners described having a special glass or place for their cats to drink from. Lois described a special water glass for her cat: "She drinks water out of my glass up here, so the little glass is always kept for her, and then I have the big glass." A special glass, or glass placement, helped to prevent the cats from drinking from the owner's own glass of water. Another participant mentioned having a special pot of water for her cat to drink from. For these participants, special water containers or placement were for the cat's enrichment. Generally, the act of feeding a pet was more elaborate than just providing a bowl of food and water; feeding was an expression of their love for their pet, so decisions about what to feed them, how much to spend on food, and when to feed the pet took on additional significance.

***Elimination*.** Providing pets with adequate elimination opportunities was more complex for some older adults than others. Those with dogs needed to ensure that the dog was walked or had safe outdoor access; these owners varied in how often the dog needed to go out. Participants noted that dog walking served two purposes: elimination and enrichment. The act of walking solely for elimination purposes occurred primarily during evening hours or inclement weather. As previously described, Albert planned his day so he would not be away from his dog for extended periods, and so he could walk her

between errands. Irene had a doggie door accessible all day, but she closed the door at night. As noted, a few participants used absorbent pads inside as a safeguard in case their dog needed to eliminate but was unable to go outside.

Cora described her experience of walking her dog in the rain:

> On rainy days, having to walk her [is a burden]. But like I say, she doesn't like the rain any more than I do. And so, if it's really pouring out, she will go out and get her business done, and then she wants to come back in. She doesn't want to be out there. So, even that's not that much of a burden.

Similarly, Violet noted,

> Getting out in the rain, the snow, walking him every day is sometimes a benefit, and sometimes, it's not a benefit. And when we have ice and that sort of thing. I don't ever feel it's really a handicap, because I enjoy walking with him. . . . So, that, if you want to say it's a burden, but it's not really. *You're doing it for them* [emphasis added].

For older adults with cats, the litter box was the primary space used for elimination, and participants chose a location that was easily accessible to the cat but hidden away so as not to be in the middle of a living area. Most participants reported scooping the box regularly. Gladys noted, "This is our process every day: It is feed her, clean the litter box." Owners balanced their cat's need for the box and their own need for aesthetics. To accommodate elimination needs, some participants also described making modifications to meet their pet's elimination needs, which is discussed in the section about making modifications.

Housing. Providing housing for a pet was not as simple as providing a roof with

four walls in pet-inclusive housing; the environment needed to support the well-being of both the older adult and the pet. Participants described how the rules and restrictions of their community influenced how they planned social engagements or interacted with their living environment. Violet noted how she disobeyed the new pet-related rules of her senior community because she perceived her dog would not like the new rule restricting dogs from certain areas. Consequently, she said that if those rules were enforced, she would stop attending community meetings rather than do something that was not beneficial to her dog:

> Well, living in this community, they have a lot of rules, which are stupid. But, because they won't let them [pets] in any community rooms and we're not supposed to go further than the front door to walk them inside, but most of us don't obey all of these rules. They just passed a new set where if you go onto the second floor, you're supposed to put them in a buggy or a basket to carry them up to the next floor, which is another stupid thing. And simply, when I have a meeting on the second floor . . . I take him on a leash, which is required anyway, and nobody's ever said anything. And I have the opportunity to take him down to our care center twice a month to show him off and visit the people that are down there. So, it's just, I guess, in this large of a community, it's necessary to have rules, but when you have a pet at this age, they're usually very well trained. And so, I don't see all the needs for this sort of thing. . . . For one thing, I can't carry him. For a second reason, I wouldn't buy a buggy to put him in because he wouldn't be happy and want to stay in it, so not a good benefit for him.

In a similar situation, Irene described taking her dog, Ida Mae, with her to movie

night, held in a common area at her friend's apartment building. Unexpectedly, the rules changed to prohibit dogs in common areas. Consequently, Irene no longer attended movie night with her friends, since her dog could not attend with her.

When considering future housing, or the threat of their housing becoming pet restrictive, many participants said they wanted to live in a place that not only accepted pets but was also an enriching environment for the pet. Against her children's wishes, Irene lived alone because she wanted to ensure that she and her dog could remain in housing that was enriching to both of them:

> Irene: She's the reason that I haven't made a move. I'm not gonna—I can't take her there [senior-living community], and I want her [with me]. So right now, I'm sort of living against my children's wishes alone, and that's about it.
>
> Interviewer: Tell me more about why it's important—why you've made the decision to stay living her with [Ida Mae] instead of living in that other place.
>
> Irene: Well . . . if I were to go to the [senior-living community]—which is wonderful in every way, it really is—and its location is great because it's not too far from here, so I'm near my family. I could take the dog. They're admitted but they couldn't do nothing. There's just no place in the building [for pets] except the room or outside on a leader [leash], of course, because they're on a busy street. And she's not used to being confined to one room and not being able to go anywhere, wherever we are. So even though I love having her and I do enjoy having her with me, it just limits her, and when it limits her, it limits me.

Irene chose to stay where she was, even though it did not meet all of her needs,

because she considered it a better situation for her dog; thus, her dog's needs were an important factor in choosing where she would live. The senior-living community was pet-inclusive, but the rules of the community did not support Irene's values about the relationship with her dog and her priorities for her dog's quality of life.

Managing financial responsibility. All of the older adults in this study acknowledged that pet ownership comes with a financial commitment and responsibility toward the pet. Participants spent money on food, toys, veterinary care, and pet sitting. Regardless of income, whether they were just making ends meet on a fixed income or living comfortably on a pension and investments, participants allocated some portion of their financial resources to their pet; the actual amount spent varied among owners. Participants with higher incomes described incurring higher expenses for veterinary care than those with lower incomes. For example, Ester described herself as living comfortably, and reported taking her cats in for regular veterinary visits and to specialty veterinary appointments. In contrast, Patricia, who lived on a limited income, described forgoing vaccinations for her pet because of the cost: "So she's not up to par with her shots because they're so expensive. So she's overdue for shots, but I don't have, like, two or three hundred dollars for all the series of shots." Thelma remarked she did not spend much money on her dog. Other participants spent more money on their pet than on themselves; for example, Josephine stated,

> He has his good collar on, but I said [to the veterinarian], "You put it on because I don't want it to come off and lose an eighty dollar collar." I wouldn't pay eighty dollars for my necklace, but I will pay eighty dollars for him.

Yet Josephine did have a threshold:

> I had to pay three hundred dollars to get a tooth pulled . . . but I would not spend a fortune on cats. No, I would not. If they said I was going to have to spend five hundred dollars on him because he's licking or he had a problem, no. I would have him put to sleep, have him cremated, and go right [out] and get me another one.

Albert also lived on a fixed income. He detailed his monthly pet-related expenses, and reported adjusting his spending to pay for unexpected expenses such as the $116 he spent at the veterinarian:

> Albert: I need some dental work badly, but you know, that's extremely expensive, and right now I'm just letting it go.
>
> Interviewer: Do you think any of the expenses that you have for Alice factor in to your decision to not do the dental work right now?
>
> Albert: Some of it, yeah. So, I'm trying to put some money away just, you know, for rainy days or incidents like this last week—you know, the extra hundred and sixteen dollars coming out and things like that—so a lot of it is financial more than anything else.

Albert used other cost-saving strategies, including eating out less frequently or at less-expensive restaurants, when he had to pay for unexpected veterinary expenses that fell outside of his budget. Francine also made adjustments in her eating habits when facing additional financial expenditures to care for her pet.

Participants viewed extensive veterinary care in varied ways. Bruce viewed extensive veterinary care at the end of a pet's life as cruel: "I think that pets, you know people spend massive amounts of money on their pets at the end of their lives, and I just

think that is cruel, actually." Bruce contrasted his decision to spend $1,500 on emergency veterinary care with his neighbor's decision to spend $10,000 on cancer treatment for his dog:

> We are middle class . . . so we have to make decisions as to how we spend our money. [Recounting a conversation with his neighbor], I said, "Yeah, this dog. God, we had to take her to the emergency vet . . . the other night. Her stomach flipped . . . and she almost died. . . . Now we've got her on these pills. Geez, we have spent fifteen hundred bucks on this dog in the last . . . couple of months. . . . She's getting expensive. I don't know if it was a good idea, you know, to get an old dog or not." . . . And he said, "You think you've got problems. This dog here has got cancer. . . . I've spent ten thousand dollars on this dog getting it cancer treatments and bone marrow transplants." I said, "Well, okay, you trumped me on that one for sure." People do strange things, you know.

Cora justified spending thousands of dollars for Candice's veterinary care under the condition that she would survive treatment:

> She got pneumonia not too long after I got her. And it's a very long story, but to make it short, that ended up costing three thousand dollars. And yes, I'd do that again if I knew that she could be saved and that she'd be okay afterwards.

Cora further emphasized her criteria for intervention, and the questions she considered:

> Is this going to do something to make her quality of life better? If not, why spend the money to do it if it's just going to prolong her life, not make it better? That'd be a hard decision.

The hope for pet survival with minimal suffering was not always an achievable

outcome for individuals with limited financial resources, however. For example, because she could not afford surgery for her dog, Patricia made the difficult choice to have the dog euthanized after it swallowed an object that required surgical removal. The object could have been surgically removed and the dog may have survived the incident, yet the expense was cost-prohibitive for Patricia. In these circumstances, other pet owners might well opt for euthanasia, since without the surgery the pet would suffer and ultimately die.

In sum, participants described the need to set personal boundaries on pet spending. These boundaries were not based solely on financial resources, but were a combination of their personal philosophies about pet care and financial resources for veterinary care. They set limits on the amount they would spend on veterinary care and often on the type of care they would pursue. Three participants with a high income reported that they were comfortable with their ability to afford pet care, and described various expensive treatments their pets received; however, even with a high income, there were limits on what type of care many would consider. For example, one participant who spent thousands of dollars to treat her dog's pneumonia stated that she would not put her pet through cancer treatment. Overall, regardless of income and personal values, participants balanced suffering and recovery; they did not want their pets to suffer from a tragic accident or illness with no hope of recovery.

Arranging pet care. When owners were separated from or unable to care for their pet, they arranged for someone else to provide care; this might occur when they were away for lengthy periods during the day, or when traveling, hospitalized, or ill or recovering from illness. They also considered being permanently separated in death.

Participants described sometimes being unable to travel spontaneously due to the

need to pre-arrange pet care and the cost associated with pet care. For some, their level of financial security and/or their sense of responsibility and obligation to provide an enriching environment for their pet were factors that inhibited their ability to travel. In-home care from a friend or pet sitter was usually preferred over out-of-home care at their veterinary clinic or kennel, because participants felt their pets were more comfortable and preferred to be cared for in their own home. On the other hand, if the participant trusted the boarding facility or veterinarian, that was an acceptable option to ensure enriching pet care. For some owners, pre-arranging pet care with a paid pet sitter or at a kennel or veterinary clinic was a costly burden they could ill afford.

When arranging pet care, participants described what conditions did and did not require pet care. Some participants with cats would leave the cats unattended for at least 1 day and up to 4 days without arranging care. They justified this by indicating that cats have a litter box and can be left with several days of food and water. Other participants, especially those with dogs, needed to arrange pet care for periods of separation less than 24 hours due to dogs' outdoor elimination needs. Still others sought help from neighbors or family. This was the case for Albert, who paid his neighbor to walk his dog while he recovered from a knee injury and was unable to walk.

Participants considered the location of the care and who would provide the care. Would the care be provided in the home with a pet sitter, a friend, or a family member? Would the care be provided outside the home at a boarding kennel, the veterinary clinic, or in the home of a friend or family member? Some participants had specific objections to using a kennel or veterinary clinic, while others actually wanted their pet to stay in a kennel or at the clinic. For example, Thelma recalled one of many instances when her

dog balked at being placed in a cage, which posed challenges when trying to take the dog to the vet or a kennel for boarding:

> They couldn't get him in a kennel, and they had a great big one, like you know, twelve foot, and they couldn't even get him into that one. Finally, the vet himself was able to get him in, but not without having the dog bite him.

The cost associated with arranging pet care, whether in the home or at a kennel, was often seen as expensive but necessary if the older adult wanted to be away and still have peace of mind, feeling that the pet was being cared for. Bruce's dogs did not like to go to a kennel, and he preferred them to be cared for by a pet sitter in their familiar home setting:

> It's really hard to find somebody to take care of your dogs. Particularly it is expensive as hell. It costs us, I think we paid 45 [dollars] a night to have somebody come and stay here and feed the dogs and take them out to walk them occasionally. You know? So you add that to your cost of your trip and it is a fair amount of money. . . . If we want to travel, we figure out some way to get somebody to take care of the dogs.

Most participants expressed that arranging pet care influenced their travel decisions. Although most had social networks to provide pet care, the pets were nonetheless a barrier to their ability to go on impromptu vacations. Gladys noted that she was responsible in ensuring that her cat was cared for prior to traveling:

> Well, I can't be spontaneous. Like, I couldn't just run off to the beach for days. I mean, you can't do that if you have an animal that is relying on you. You have to make sure that she's fed. . . . So I can't just go away or stay away without

> realizing, "Oh, has she been fed? Does she have enough food?" You know, that sort of thing.

Likewise, both Bruce and Albert noted that the responsibility of arranging pet care could be challenging to spontaneous travel. Bruce recounted that if his wife was traveling, he might have to decline engaging in his own leisure activities:

> I like to fish, and sometimes there is a spur-of-the-moment fishing thing or something. Or something comes up. "Let's go fishing next weekend"—you know, that kind of thing. Of course, if [wife] has something else going I can't, because I have to stay and take care of the dogs. Or her [wife] too; you know, we kind of have to be more . . . we have to plan better.

Lois, however, did not experience the same challenges, because her friend was always willing to care for her cat:

> But I think what I'm saying is, it doesn't keep me from doing what I want to do simply because I have a cat. I wouldn't want to pay boarding fees, and I'm fortunate enough that I don't have to do that. But I would do that if I had to.

Death was another situation requiring forethought and planning for a pet. Some participants had made arrangements to provide care for their pet(s) upon their own death. Some identified a specific person or chose a place for their pet to go, while others had not considered what would happen to their pet when they died. For example, Wanda had not yet decided who would care for her cat, Wilber, when she died. She recounted possible people who could care for him, and why she felt they would or would not be a good match for her cat:

> See, I can't see him being a barn cat; he's too spoiled. My daughter, in her house,

> [she] has a black Lab [Labrador retriever] who would probably be fine [with the cat]. . . . So, you know, we haven't decided on guardianship of him yet.

Some owners included the disposition of their pet in their will, along with a designee to care for the pet; some even set aside money for pet care upon their death. Conversely, others had not planned ahead, or perhaps even considered what might happen to their pet upon their death. Gladys admitted, "I don't know who would take her. I haven't really thought about that. I'm planning on her to die first, but I could be wrong. I do have to think about that." Even in the event of their death, most older adults felt responsible for ensuring that their beloved pet was cared for. In general, most participants described having a formal plan or assumed their pet would be taken care of when they died.

In summary, older adults were committed to maintaining responsibility for their pet. They first decided if a pet was right for them, and if so, determined what characteristics they were looking for in a pet. Upon committing to having a pet, they experienced joy in caring for their pet in a manner that was consistent with their personal values and standards for care. Providing care included a financial commitment to provide for their pet's basic needs and typically included veterinary care. Finally, participants arranged pet care when they were away from the pet, whether for medical or recreational purposes, or permanently upon their death, using their pet-centric social networks in times of need. When specifically asked about any burdens they experienced from the responsibility of having pets, they responded with statements such as "I don't have any burdens." "She gives me so much that to me, it's not really a responsibility. It's almost like a privilege to take care of her." Participants felt fortunate to care for their pet, and

viewed the responsibility as an expectation: "If you got pets, you got the responsibility."

Remaining Independent

Remaining independent is defined as the older adult maintaining sufficient physical and cognitive function to remain independent, including the ability to keep and care for their pet. In the event that their physical function declined, many had developed or considered adaptive strategies to maintain and support their independence. Because all of the participants lived independently with their pets, some were asked how they would respond if their health provider recommended that they relinquish a pet that was causing them harm. In response, many participants described various strategies to remain with their pet, or said they would disregard the recommendation; however, some described situations in which their loss of independence would prevent them from having a pet. Remaining independent has three processes: *making modifications, living in the moment*, and *utilizing social-support resources.*

Independence required for pet ownership. Many of the older adults expected to have pets for the remainder of their life; for some, the idea of ever living without a pet was unimaginable; however, when probed more deeply, they acknowledged that pet ownership required independence.

Independence meant the individual lived autonomously and possessed the physical and cognitive ability to care for not only for themselves, but also for their pet. Participants explained that if they were not independent, they would be unable to have pets. Some participants lived independently in multiresidential housing, with options to move into progressively more dependent levels of care (e.g., assisted living, skilled nursing) if they were to require additional assistance as they aged. They realized,

however, that the skilled nursing areas prohibited pet ownership. Harry reflected,

> In the skilled nursing down on the second floor, they don't allow pets. So if I get to the point where I have to move out of this unit and maybe go into assisted living, or even more severe, the skilled nursing, I'll just have to give my cat away I guess. . . . It's just part of life, I guess.

Although Harry conveyed his plan to give away his cat in a matter-of-fact manner, Ester expressed a more emotional perspective of relinquishing her cats if she needed progressive levels of care: "When I think of not having a cat, I'm devastated, because when we have to move over, when we need more care, we have to move over a level and they don't allow pets."

Some participants looked forward to remaining independent for the foreseeable future and were willing to manage the responsibilities of pet ownership with their current—and possibly future—pets. For example, Denise had no intention of losing functionality as she got older. She explained:

> I expect to live to one hundred, and be functional until way up there, so, but imagining that, like I had a housekeeper come in or something to help out, yeah, they would definitely have to like the cats.

Likewise, Francine wanted to keep living independently in her current residence with her dog, Franklin: "I don't want to go into a rest home, and I have that choice. I can stay here until I die if I want. So, I will have him with me as long as I'm here."

When asked, participants also recognized that significant decline in their physical or cognitive function would definitely restrict their ability to care for a pet. Violet said she would relinquish her dog if she became bedridden. Alternatively, Lois entertained the

possibility of acquiring a robotic cat in place of a real cat if her cognition declined:

> Well, I think if I become senile—which I really don't think I will—I think I will want something to pet, I really do. . . . And I would be able to pet that robot. I think that would be very important to me.

Owners recognized that being physically dependent or cognitively impaired would impede their ability to have a pet. They considered the possibility that if they were unable to live independently, they might need to relinquish their pet to ensure that it received the care it deserved. Fortunately, none of the older adults in this study were currently faced with the possibility of having to relinquish their pet.

Making modifications. Some participants used adaptive devices or techniques to accommodate their own limitations in physical function to provide care for themselves or their pet. Participants had varying levels of mobility, functionality, and strength. Some used adaptive devices such as a walker or a cane, while others did not. As older adults with physical limitations, they described how they had modified their activities of household chores and pet-care activities to adapt to changes in themselves or their pets.

Many owners incorporated creative techniques for transporting heavy items like pet food or cat litter. To avoid having to carry a heavy bag of cat litter or food, Lois used online shopping to have cat litter delivered directly to her apartment, but she was still able to scoop the cat litter. Harry switched from using heavy sand-type cat litter to a lighter litter because it required changing less often. Josephine described the creative method she used to transport cat litter and cat food into her house:

> I have a wheelbarrow. If I get the big bag, I get it in the car and then I bring it up to the porch in my wheelbarrow. I have to do my groceries the same way: I put

them in the wheelbarrow.

Similarly, Gladys described how she modified her housekeeping methods due to the changes in her physical ability: "I started using a mop. I used to scrub the floor [on] hands and knees. We don't do that anymore, so I make adjustments accordingly."

To adapt to the physical changes in or needs of the pet, participants also modified other activities; for example, Francine looked forward to the warmer spring weather to increase her walking for her own and her dog's health. She stated, "I'm a lot overweight, but he's a little overweight." She explained that she walked at a slower pace than she wanted because her dog "tends to stop at every tree, every twig, and it kinda slows me down, so if I didn't have Franklin, I would walk more." Similarly, Bruce decided to walk his dog, Bella, at a slower pace for shorter distances due to her arthritis; however, this was not in his best interest, as his healthcare provider recommended dog walking for his own heart health:

> Well, you know they all want me to lose weight, do my walking. . . . So I told him about my dog. . . . I said, "My old dog, you know, she runs out of gas, she goes slower." He said, "Hey, get a new dog. Get another dog. Get a puppy." His discussion was, "Hey, it's all well and good, but you need a puppy. Or walk Bella for fifteen minutes, come back and bring her home, and take off by yourself, you know?"

The health behavior of these participants was largely influenced and modified by their pet's needs rather than prioritizing their own health and the health benefits of physical exercise. Conversely, after her hip surgery, Wanda's postoperative care recommendations included specific restrictions in physical activity. To adhere to these

recommendations, Wanda changed her normal feeding routine with her cat, Wilber:

> After you have a hip replacement, you know, you are not allowed to bend over for three months, so Wilber had to learn a new habit because his dishes were on the floor and I couldn't bend. . . . His food bowl was put on the counter, where I didn't have to bend over, and his water bowl, so I didn't have to bend over to take care of it. . . . So, you know, I wanted to be able to take care of him. I wanted to be able to do a lot of things, but part of what I wanted to do in my ADL [activities of daily living], as they say, is take care of him.

In this example, Wanda specifically sought to maintain her own health so she could take care of her cat. She found a creative way to comply with her surgeon's postoperative care recommendations while also meeting her cat's needs. Other participants were unable to find a balance between their own health needs and caring for their pet, and instead they prioritized their pet's needs over their own. Recall that Albert put off his dental care due to prioritizing pet-related expenses. Likewise, Bruce and Francine did not follow walking recommendations because of their dogs' walking behaviors. Although their actions were different, the intentions of their decisions were to ensure the well-being of their pet.

To further illuminate how they might or might not make modifications, some participants were asked how they would respond if a healthcare provider said their pet posed a health risk and recommended that they relinquish the pet. Many said they would not relinquish their pet; instead, they would make modifications to work around the problem. Some said they would "find another doctor" or tell the provider to "mind their own business." For example, Ester did not hesitate to say she would keep her cats, and

then carefully weighed the options to keep or relinquish her cats if they were causing her husband harm:

> Well, if it was *me*, I would definitely keep the cats. If it was *him*, and it was causing him a lot of problems, I might—*and that is a very strong might*—consider letting them go. Not unless it was like, life or death, I think [emphasis added].

Albert elaborated on specific tactics he might use to manage with his dog, Alice, if a health provider said Alice was causing him health issues:

> Hmmm. That's a tough one. I would see what we could do about it. I mean, I would think it would be more like an allergy type thing. That could be taken care of. If it was anything else, I mean, like, if I was unable to walk her or stuff like that because of health problems—I did have a situation where I bruised this leg; I was doing something out here and I bruised this leg. I couldn't walk and one of the gals here volunteered; she walked Alice. But I could still, you know, I tried before she noticed and she said, "You can't do that." I'm waddling around with a cane. But I don't know, I think we could manage somehow.

When asked what he would do if the provider said that Alice was a fall risk and recommended that he give her up, Albert responded,

> That would be a fight. That would really be a fight. . . . I need her more for comfort and companionship than, you know; a dog can be trained, too. You could keep her out of certain areas or whatever, or if I was a fall risk, I mean, I would do something to, you know, walk her or something like that. Even a wheelchair or something; she would get used to that. We could work that out. We would definitely work that out.

Conversely, Harry, a former dog owner who now owned a cat, indicated that caring for a dog while in a wheelchair would be challenging to manage and, hypothetically, he would become unable to keep a dog. This was contrary to Violet's personal experience when she temporarily needed a wheelchair. Violet relied on her social-support network to help out temporarily by walking her dog, Vern, during her recovery from surgery.

Another participant, Thelma, said she might give up services to buy food for her dog: "I would do something else to get the money. . . . Instead of having somebody wash the windows on the house or take the car through the car wash, I will spend the money on dog food rather than the car." Similarly, Francine had purchased pet insurance for her dog, Franklin, but if she had to incur out-of-pocket costs, she would modify spending on herself:

> Well, I just have to budget it in and maybe do away with something of my own, something that I planned to do. I like to go out with friends to eat, so I might have to go out less or skip a month or something, depending on how much it costs.

Participants modified their activities, which enabled them to remain independent and provide care for their pets. To accommodate their own or their pet's functional limitations, they modified their activities by developing creative solutions. When queried about hypothetical situations adversely impacting their health and requiring them to relinquish their pet, participants chose staying with their pet over the recommendations of their healthcare provider. They said they would tolerate the problematic situation and/or make modifications to remain with their pet.

Living in the moment. Many participants described living in the moment when

faced with projecting too far into the future; for example, when asked how they imagined their future with their pet as their health and age changed or declined, most "had not given it much thought." Most hoped their functionality would remain unchanged, and had not imagined any further decline. Instead, they chose to "make it happen" when and if they had to make decisions about the relationship with their pet in the future. Although Wanda described making tentative plans for the future with her cat, ultimately she did things "day by day":

> But as long as like we can be together, if something is going to happen to him, it's going to happen. If something is going to happen to me, it's going to happen. You know, we try and do things as safely as possible, not to trip over things, break bones, stuff like that. So I mean, wherever I go, he will come, and maybe we will go to North Portland. Maybe we will just try to get a cheaper apartment here. We will see how that works. . . . You know, I do things day by day.

Similarly, when Thelma was asked to imagine her future with her dog as her diseases progressed, she responded, "I don't imagine disposing of Teri, no." In contrast, Francine was more contemplative, basing her decision on the situation:

> It all depends on what the situation is. If I'm as well as I am now, of course I'll keep him with me. Like I said, it depends on what the situation is. I won't know until I get there.

Margret expected to outlive her cat, Merlin: "I'm going to take care of him until he's gone. I love him. And cats are not like dogs. You don't have to walk them every day and all that. It's a whole different ball game." Although Margret did not explicitly state that she was living in the moment, her response implies that she expected her abilities to

remain stable and had not considered that her conditions might progress to a point where she could not take care of her cat. Participants also considered how they might utilize social-support resources to remain independent.

Utilizing social-support resources. Utilizing social-support resources is related to older adults remaining independent and arranging pet care when faced with the possibility of a planned or unplanned inability to provide it themselves. The owner first decided if the pet needed care, then decided who would provide the care. In these situations, participants reached out to their pet-centric social-support networks to provide assistance; no one was more than a phone call away. Most participants built reliable pet-friendly, supportive social networks to assist in caring for the pet. The individuals utilized in these social networks usually had pets of their own or were very pet-centric. These networks were called upon for planned unplanned separations. Some individuals in the networks had also agreed to care for a pet upon the owner's death.

Cora lived in a senior community. The residents each had a special sign outside their door indicating who to call in case of an emergency. Cora's sign also provided information about where her dog, Candice, should go. Cora described her worry about making sure that her dog was cared for during an unexpected acute hospitalization:

> Well, I was so sick when I went to the hospital. I didn't even know I was sick. I was running a temperature of a hundred and five, and was just kind of out of it. But I kept telling them, I said, "You've got to do something about Candice. We've got to call somebody to take care of Candice." I didn't want to leave because I didn't—so the nurse here said, "Well, what do you want me to do?" And I said, "For now, put her in her crate." Because she's used to her crate. And

> so, I said, "Put her in her crate. But you've got to call my neighbor to come and get her. To let her know that she's in there." And it's on our signs outside. And I said to the nurse here, I said, "Just look outside on my sign and it will tell you who to call, to have her come and take care of her."

For a planned surgical hospitalization, Raymond notified his veterinarian of his extended absence and made arrangements with his neighbor, Rita, to take care of Rosie for a month. The plans included regular updates on Rosie:

> Rita and I have talked about it and Rita has a video thing that's hooked up to her television, and she uses it to talk to her grandchildren. And so she said when I'm in the hospital, we'll have a certain channel that I can flip into it, it scans and she can put it on whatever room that Rosie's in, and I can watch her. So I can be able to know if she's eating and if she's got any health problems or anything. I've already arranged with the vet, my vet, that Rita has full authority to bring Rosie in and I'll pay the bill when I get out of the hospital or whatever.

Participants also utilized their social-support resources to help provide pet care when they were home recovering from an illness or injury. Violet had been pulled to the ground by her dog; she was using an electric wheelchair for mobility and arranged for her friends to walk the dog during her recovery: "Well, I have good friends and I have two that take him out—one in the morning and one in the afternoon, or one takes him out both times." Likewise, Francine arranged for her friend to feed and walk Franklin during her day-surgery procedure.

In addition to utilizing their pet-centric social-support network to help care for their pets, participants also sought out support from other resources related to their pet

care, including their veterinarian and/or their own healthcare providers. Veterinarians offered informational support by making recommendations about feeding, monitoring the pet's ongoing medical conditions, or offering pet treatment advice. Gladys recalled Goldie's visit with her veterinarian:

> The last time she went to the vet she scared me, because the vet goes, "Her teeth . . ." I'm going like, "Oh, shoot." She says, "No, they are really in remarkably good condition." So basically I buy dry food and she gets a little bit of wet food, but mostly dry food.

Ester took her cats to the veterinarian for routine and specialty check-ups: "About every six months, unless they have special problems. We have to take the other one, the one that's not this one, to a cardiologist next week, I think." Nearly all participants mentioned how they accessed their veterinarian to provide care for their pets. The role of healthcare providers as formal social support varied, however. For a few participants, their physicians knew about the pet and the importance of the relationship. Violet's provider offered a letter supporting the human–animal relationship:

> Well, my doctor I've had since I've lived at [senior community], which is almost sixteen years. And we're friends. We've gone to movies together, and lunch, and she understands. She knows Vern. . . . And she gave me a letter saying that I'm in need of him. He's not a service [animal] or whatever, but just in case they got unhappy here, that I would have a form that I need him. She's a very good friend.

Irene's dog, Ida Mae, usually accompanied her, and was welcome to be present during dental and healthcare visits. Similar to Violet, her provider hand wrote a letter stating, "Ida Mae serves as a companion animal providing emotional support in

improving her well-being . . . much needed due to her advanced age and medical condition." Irene did not actually require Ida Mae to be with her for her medical conditions, yet for both Violet and Irene, a letter from their healthcare provider almost served as a passport for entering pet-restricted areas, representing their healthcare providers' efforts to support their values and the human–animal relationship. Conversely, Cora did not support the idea of her provider writing a letter designating her dog as a service animal because "that would be phony. And there's too much abuse of service dogs as it is. Too many people—because there's no regulations."

Unlike Violet and Irene, Cora did not discuss her dog with her physician. Not until her hospitalization did she associate the importance of her dog with her medical conditions, yet she also endorsed the importance of her dog in alleviating anxiety and positively impacting her overall health:

> And I really, honest-to-God don't know what I'd do without her. I have anxiety attacks that she senses. And she won't get out of my face until I start looking at her. And then I forget what I'm being anxious about. That's not by training, certainly; that's just instinct with a dog. And that's why I think they're so good for older people.

Other participants also explained that their healthcare provider knew they had a pet but was unaware of the importance and value of the human–animal relationship. Gladys stated, "They actually know absolutely nothing other than that I have a cat." As noted previously, Bruce's provider knew about his dog, Bella, and recommended that Bruce either walk Bella a short distance and then do additional walking on his own, or obtain a puppy with more energy to walk. It appears that the provider may have had a

limited view of the human–animal relationship, however, merely recommending an animal to promote walking rather than also considering the emotional components of the relationship that were important to Bruce:

> I mean, we walk together, too, you know, but basically I'm a morning guy, so we would get up in the morning real early, five-thirty or six, and maybe have a cup of coffee or maybe not. Then we would take off. It's kind of . . . I'm not a religious guy or anything, so I have often thought that early morning by ourselves—quiet and still, not much going on, no leaf blowers going, the carpenters haven't started up—it's kind of my meditative time, you know, and not many people are out at that time, so we don't have interactions. It's just forty-five minutes or an hour, and it's important for me, and so she's always been part of that, you know, so it just sort of was important to me.

When queried about what their healthcare providers knew, some participants stated that they knew "nothing," and "It never comes up." Few participants utilized their healthcare provider as a formal source of social support when it came to the relationship with their pets; in fact, most participants did not talk to their healthcare provider about the importance of the human–animal relationship. Furthermore, the participants were unclear about how their healthcare provider might be utilized as a source of social support. Gladys pondered how her provider might support her human–animal relationship:

> I think I have talked to my doctor and my doctor knows I have a cat, but *she doesn't really know* [emphasis added]. That's a good point. Would they provide a [pet] visit if I were in the hospital? Would they let somebody bring the cat to me if I were dying? You know? I mean, that's a good question. In hospice they do,

but I don't think they do that in the hospital.

When participants were asked what they would want their healthcare provider to know, they elaborated on the importance of the pet in their life and the concerns they had should they become too ill to care for their pet. Denise highlighted the importance of providers understanding that pets impact older adults' mental health:

> I think especially for people [healthcare providers] treating geriatric, like, you know, sixty and over, I think it's important, because there is so much depression and loneliness and isolation. And I'm not that person, but you know lots of people are, and I've known [people] that just lived and died for their pets, you know. And I'm like that too, but not, you know, not to that degree.

The varied ways participants decided to discuss or not discuss the importance of their pet was dependent on their assumptions of how the healthcare provider would react, whether they expected their provider would engage in a pet-related conversation, and what pet-related topics should be discussed. In Bruce's case, the discussion was centered on the provider's agenda of Bruce achieving optimal walking behaviors, yet the provider did not explore Bruce's values and motivations for walking with his dog.

In summary, remaining independent was valued by these participants. They expressed intentions to remain independent in their current environment or to be in an environment where their pet was welcomed, not just allowed. Living independently was a condition for pet ownership, and the thought of not having their pet was unimaginable for most participants. Likewise, they felt they had an obligation to maintain responsibility for their pets; therefore, relinquishment was not an option, and instead they would make modifications to remain with their pets.

They used adaptive strategies to modify their activities for daily pet care, continuing to adapt as their functionality changed. They managed day by day, living in the moment and not worrying too much about what the future would hold; they would "make it happen" if faced with uncertainty at some future time. Participants had strong social-support networks, with pet-care resources available at a moment's notice.

Impacting Well-Being

A majority of the participants had multiple chronic conditions. Managing chronic conditions requires adherence to a diet, medications, exercising, and/or making regular visits to healthcare providers. Managing chronic health conditions with pets was not specific to the type of condition, but instead was primarily about managing pet care. Participants described how they managed various pet-care activities with modifications or by requesting assistance to provide pet care. When asked how their pet influenced decisions related to managing their chronic health condition(s), owners did not consider that their pet was influential in this are; however, during the interviews they revealed that various pet-related influences impacted their physical health and emotional well-being through engagement and motivation.

Impacting well-being was about engaging in activities that affected well-being for both the older adult and the pet, and on occasion, that benefited the pet but not the older adult. Impacting well-being has two decision-making processes: *engaging with the pet* and *being motivated by the pet*. These two processes are integrated due to the nature of engaging with the pet. The process of engaging with the pet is an extension of the decision-making process of providing enriching pet care.

Engaging with the pet. Pets influenced participants' time, emotion, and

environment. During the interviews, pets were often in the same room, at their side, or on their lap. Many participants interacted with their pets during their interview, talking to them, responding to them, and sometimes even including them in the interview. Many used statements to acknowledge that their pet was in the room, or to attempt to include the pet as a participant: "Look, he knows we're talking about him." "Explain to her [interviewer] that when I say, 'Would you like a carrot?' that means we go in the kitchen and we get a carrot. That's right."

Participants often engaged in unique enrichment activities during playtime, lap time, and bedroom routines. In addition to talking to their pet, some also engaged with their pet by sharing a bed with it. These activities represent the special bond between the older adult and his or her pet. For example, during her interview, Francine and Franklin played with a stuffed Santa Claus toy. The toy was tattered, and Francine explained that it was the first toy she got for him when they "first got together." The tattered toy appeared to be a symbol of their enduring relationship.

Participants explained that when they spent time with their pets, they had an improved sense of well-being, with decreased stress, decreased loneliness, and feelings of a sense of purpose. For example, they described petting and/or walking as two stress-relieving activities. Several participants talked to their pets, and perceived that the pet understood them. Patricia described how she rubbed and talked to her dog to relieve stress:

> When I'm feeling bad, I can rub her. She comes and rubs up against me. I don't pick her up, because she's too heavy, but I talk to her just like I have a person in the house, and you think, well, she's listening, but she can't talk back. I think they

can sense when you're feeling bad.

Additionally, participants described the impact of their pet in preventing feelings of loneliness or depression. Josephine reported that because she had her cat, Jordan, she could not imagine feeling lonely or depressed: "How can you get lonely when you have a pet to love and talk to all day long? I can't imagine, excuse me, not having a pet."

Owners engaged in elaborate everyday routines of feeding and walking their pet, as described previously. By living with a pet and engaging it in a meaningful way, participants described feeling a sense of purpose through the nurturance they provided. Lois described caring and feeling nurturance as having an important impact on her well-being in the relationship with her cat, Louise:

> I think a lot of it is just caring. I care a lot about her and I know she cares about me, and I don't know what else to say about that. I like having her on my lap, and if she gets off, that's fine too. When I lay on the bed or if I go to bed, she goes flat on my stomach over there, and that's fine.

Participants also engaged with the pet in various intimate activities, such as spending time cuddling, kissing, petting, and sharing a bed. In fact, all but 2 participants allowed their pets the option to sleep in bed with them. Patricia allowed Petunia to sleep in the bedroom, but not in the bed because of the dog's early guarding behaviors that prevented her from entering her bedroom. Patricia trained the dog to cease guarding the bedroom. Bruce's dogs were prohibited from his bed due to concerns about germs; however, his wife wanted the dogs in the bed, so she slept with them in a different room.

Participants described bedtime routines. Irene and Ida Mae retired to bed together: "I'll tell her at night, "We're going to bed" and she runs right into the bedroom and gets

under the blanket." Likewise, Josephine said to her cat, Jordan, "'Let's go night-night, Jordan, come on, Mommy's going,' . . . and then he will come in and jump up on the bed." Raymond described making the bed: "And she likes to play sheet monster when I have the sheets on the bed, getting ready to make the bed. She'll burrow under them and make me find her." These pets were integrated into their owners' bedroom and bedtime routines.

Engaging with their pets in meaningful ways supported the participants' feeling of well-being. Their pets were integrated into many of their daily activities and were a routine part of their life. The human–animal relationship was influential when participants cared for themselves and their pets.

Being motivated by the pet. Participants described situations in which they were motivated by their pets to engage in behaviors that promoted health. They described their pet as enhancing their life by promoting physical and emotional well-being. Those with dogs described how dogs promoted physical activity through walking. On the other hand, sometimes their pets influenced behaviors that did not support health, such as decreased walking and delaying health treatments. Overall, pets influenced decisions about walking behaviors, recovery care, and delaying care, and influenced their emotional stability.

Walking behaviors. Participants with dogs believed walking with their dogs was beneficial to their physical and psychological health. Patricia equated her dog with medicine: "But I think the dog is just like medicine, really." Patricia also told her healthcare provider how she perceived Petunia to have a positive impact on her health:

> Well, he says my problem with the blood pressure, that was stress related, but it's a family thing. My three sisters, we all have high blood pressure, whether we're

> skinny or fat or whatever. It's just a family, hereditary thing. And I tell him I walk her [Petunia], and I talk to her, and it helps.

Similarly, when Albert's bruised his knee, his mobility was limited, yet he was motivated to heal so walked his dog, Alice: "I had to actually walk, I mean to heal myself, too, so I walked her as much as possible."

In contrast, recall that Bruce described walking his dog Bella as a meditative experience, but when Bella became arthritic, his walking behavior changed:

> Now we don't do that [take long walks], because she's getting so stove-up. So it's not good for me, and I don't get to get my meditative time as much as I did.

Bruce said if he walked without Bella, she would "go berserk": therefore, he decided to walk less, but still walk *with* her. As noted, this prompted his cardiologist to recommend getting a puppy to increase his walking. Likewise, Francine explained that she would walk farther and faster if Franklin did not stop to sniff everything; in her case, the dog hindered walking that promoted increased exertion during physical activity. For some of the participants, pets influenced them to engage in walking, yet the pets' walking abilities also influenced walking behaviors.

Recovery care. Participants were eager to resume care pet care activities after an injury or postoperatively. Albert described how walking after his knee injury was challenging, so he arranged someone to walk Alice; however, he was also motivated by Alice to recover so he could resume their walking activity together. Wanda described having a bad hip, and one reason she wanted hip surgery was to take care of her cat, Wilber. In her recovery period, she shifted the cat's eating and drinking area to the counter because postoperatively she was not supposed to bend down, but she also wanted

to be able to take care of her cat.

Delaying care. Only one participant described delaying care as being influenced by his pet. Recall that Albert decided to postpone dental care because of the various pet-related expenses, thus prioritizing his dog's needs and health over is his own. The main reason for delay was attributed directly to the cost of the dental care, and indirectly related to prioritizing the cost of pet care.

Emotional stability. Participants reported that their pets responded to them during exacerbations of their chronic condition. Many called this a "sixth sense" or "intuition," or said "they just knew"; the human–animal interaction positively influenced their emotional stability. Participants described how their pet was with them at times of exacerbation; for example, those with and without mental health conditions described how their pets were with them to calm them down. Cora described how Candice would "get in my face" when she was feeling anxious, influencing Cora to feel better. Bruce described Bella's "sixth sense" when he mourned his sibling's death:

> It was a heavy time. It was tough duty and, yeah, we sat in the hallway and in my office and cried by ourselves, you know. . . . I was pretty stoic most of the time, but you know, it was our private time to mourn a little bit, or grieve whatever is going on, you know. But the fact that that squirrelly dog felt the vibes—it was pretty heavy stuff.

Some participants felt their well-being was improved because their pets provided them with protection; for example, Francine felt her dog, Franklin, cared for her by following her to the bathroom at night, then whining at her to protect her from falling off the toilet if she fell asleep:

> He already knows to protect me when I fall. Now, if I go in the bathroom and he goes in with me, if he sees my eyes closing, he goes "*hmm hmm hmm*," and wakes me up. Like, "Get back to bed, you." He's really a caretaker in a lot of ways.

Likewise, Irene and Patricia felt their dogs offered protection when they alerted that someone was approaching the door. In these cases, the presence of their dogs offered comfort and protection, which positively impacted well-being.

Enhancing the pet's well-being. Participants engaged in activities to enhance the pet's well-being. Dog owners provided prolonged walking or outdoor time because they perceived the dog to enjoy the experience. Patricia described Petunia's enjoyment of car rides: "She likes to get out of the apartment, man, and she loves to ride." For Petunia to ride in the car, however, Patricia had decided to pick her up instead of using other strategies that might have been less challenging because of her arthritis:

> Patricia: And so we walk, and she likes to ride in the car. And she's so lazy, she doesn't want to jump in the car. She wants me to pick her up, but she's heavy, and she'll just stand there. And I say, "Petunia, jump. Jump." She wants me to pick her up. She will not jump in. She'll jump out, but she won't jump in. So she's spoiled rotten.
>
> Interviewer: How is it for you, picking her up with your arthritis? What is that like?
>
> Patricia: It's kind of hard, but she won't jump in the car.
>
> Interviewer: So tell me, what's hard about it?
>
> Patricia: Well, I try to get a grip on her. The car isn't up that high. But I guess if I put the leash on her, I could make it her do it, but she wants me to pick her up,

so I pick her up. But we don't ride every day, so that's not a problem.

Interviewer: Yeah. Does it hurt when you pick her up, or is it uncomfortable for you?

Patricia: It's not that nice, but it's not something I do every day. She loves to ride in the car, and whenever I pick up my keys, she goes and waits in the hallway to wait on me. She knows I'm going somewhere, so usually she follows me everywhere I go.

Patricia justified promoting Petunia's well-being as a rationale for the arthritis discomfort she experienced from occasionally lifting Petunia into the car. With regard to walking, both Bruce and Francine also promoted their pet's well-being instead of their own. Bruce's dog Bella had arthritis, so he walked with her at her pace and duration, not necessarily at the pace and duration recommended by his healthcare provider. When Francine walked Franklin, she allowed him to walk slowly. This could be considered a potentially harmful influence on health.

Self-care. Pets also motivated people to take care of themselves, enabling their ability to continue taking care of their pet. Cora described being highly motivated to discharge from the hospital so she could return to her dog, Candice:

He [son] took care of [Candice] while I was gone. Which is what we've all arranged. So, I knew she was in good hands, *but she wasn't in mine* [emphasis added]. If I get nervous or anxious about something, I just pet her and it just all calms down. So, we've got quite a bond just in three years of time. And she's at least once, I know, saved my life. Because it made me want to get home because I couldn't be with her [in the hospital]. And so, that's one good thing.

Three other participants who experienced hospitalization were not worried about their pets because they knew the pet was being cared for, but they were motivated to return home to resume their activities with their pets. Recall that Wanda was motivated postoperatively to resume care of her cat, and modified the placement of her cat's food dishes so she could continue to care for him.

To ensure safety for themselves and their pets during mobility, participants were mindful of their pet's location. Gladys described being on alert so she did not trip over her cat, Goldie:

> I have this chronic knee problem. . . . You know, cats like to run in front of you, and so tripping me and stuff like that. So I have to be extra careful to see where she's at so that I don't trip over her.

Other participants who used mobility devices were similarly attuned to their pet's location; some even trained their dogs to walk on a specific side to avoid tripping over them.

In sum, impacting well-being benefits both the older adult and the pet. These pet owners spent several hours per day with their pet, engaging with them by talking, playing, and providing care. Participants were motivated by their pet(s) to remain healthy, and the pets helped them engage in healthy activities such as walking.

Summary

In this chapter, the results were presented for the dissertation research, *The Influence of Pets on Decisions of Older Adults' with Chronic Conditions: A Grounded Theory Study*. The initial substantive grounded theory, *Filling the Empty Spaces: A theory of older adults' human–animal interactions*, provides an emergent theoretical

representation of the relationship older adults have with their pets, and how that relationship impacts decision making. Pets were an integral part of the everyday lives of the older adults in this study. As their lives shifted from the family-rearing and/or career-oriented phase toward retirement, revealing empty spaces in their lives, pets filled the empty spaces around them.

Participants provided rich details about the relationship with their pets, offered details about pet-related influences in everyday decision making, and shared examples of how pets influenced their health. When participants were asked how their pets influenced decisions related to managing their chronic health conditions, many did not consider their pets to be influential; instead, they revealed ways various pet-engagement activities impacted their physical and emotional well-being. Participants cared about the well-being of their pets and accepted responsibilities associated with having a pet. They regularly considered their pet's well-being when making decisions about their own health and about everyday matters. Many participants imagined growing older with their pets, and if possible, intended to have a pet for the remainder of their life. To keep pets into older adulthood, participants described decisions, strategies, and resources they utilized to be successful. These findings elucidate the intricate and often taken-for-granted ways that pets influenced decision making. In the next chapter I present a discussion of these findings, implications, and future research opportunities.

CHAPTER 5: DISCUSSION, IMPLICATIONS, AND RECOMMENDATIONS

The purpose of this chapter is to discuss the study findings, compare and contrast the emergent theory with other theoretical frameworks, and consider implications for policy, education, practice, and future research. The purpose of this study was to explore and describe the influence of pets on older adults' decision making and chronic-condition management. The specific aims were to (a) describe how pets influence older adults' decision making, and (b) develop an initial, substantive, grounded theory framework of the influence of pets on older adults' decision making.

The findings suggest that older adults consider their pets during decision making. When participants made decisions concerning the management of their chronic conditions, the decisions were related to self-care regarding medication, diet, and physical activity. Additionally, they considered how they would provide pet care given the physical abilities and limitations related to having a chronic condition. Most participants hoped for a future in which they would be able to live with and care for their pets. Their intentions to keep a pet were associated with the physical and emotional benefits they experienced from their human–animal relationship(s); however, the participants also understood that they might experience future limitations in their ability to care for a pet. They wanted their pets to receive enriching care, and thus would reluctantly consider not having a pet if they were unable to provide the care they felt the pet deserved. Overall, participants' connections with their pets represented an important relationship in their life: a reliable, sentient being with whom to share their time, emotion, and environment.

Interpretation of Findings

Filling the Empty Spaces: A theory of older adults' human–animal interactions provides an emergent theoretical representation of the relationship older adults have with their pets, and how that relationship impacts decision making. There were two conditions for older adults to keep a pet: live independently, and want a pet. When these conditions were met, older adults in this study were willing to have pets. The participants described the various ways pets filled empty spaces in their life. There were three contexts in which the empty spaces occurred: time, emotion, and environment. Within these spaces are three major categories with 10 decision-making processes; these were nonlinear, and at times there were conceptual overlaps. The major categories were maintaining responsibility, remaining independent, and impacting well-being. The category *maintaining responsibility* had four decision-making processes: deciding to have a pet, providing enriching pet care, managing financial responsibility, and arranging pet care. The category *remaining independent* had three decision-making processes: making modifications, living in the moment, and utilizing social-support resources. The category *impacting well-being* had two decision-making processes: engaging with the pet and being motivated by the pet. Personal values and resources further influenced decision making. The outcomes of pet ownership were either a positive influence on health or a potentially harmful influence on health. The participants illuminated the intricate and often taken-for-granted ways that pets influenced decision making.

The theoretical framework from this study is about the interwoven aspects of the human–animal relationship in everyday life. This framework also offers additional considerations about the intricacies of these relationships. First, the framework suggests living independently and wanting a pet as pragmatic conditions for older adults to

consider caring for pets. Then there are the contexts of time, emotion, and environment, in which pets fill the empty spaces of older adults. Additionally, older adults assume an obligation of pet responsibility to provide enriching pet care, manage the financial aspects of having a pet, and ensure the pet is cared for during times of separation. With these responsibilities, they seek to remain independent by making modifications along the way, living in the moment, and utilizing their social-support resources to aid in pet care as needed. Their role as a pet owner impacts their well-being by engaging with the pet and being motivated by the pet. These motivations can impact well-being in both positive ways and potentially harmful ways. Thus, this framework both supports the theoretical concepts of attachment theory and social support, and offers components beyond those posed in attachment and social support.

Contexts of Empty Spaces

The older adults in the study described how their human–animal relationship *filled* their contexts of time, emotion, and environment. Many spent most of their day interacting with and caring for their pet. One reason for this was that their shift into retirement allowed them to be home with their pets. An investigation by Peacock et al. (2012) revealed that pet attachment is significantly higher in people who spend the most time (>16 hours) with their pets. Although pet attachment was not measured in this current study, most of the older adults spontaneously reported being very attached to or bonded with their pets. Considering the amount of time they spent with their pets, it is not surprising that these individuals sought to connect emotionally and made arrangements in the environment to accommodate the pet. They described their emotional ties with their pet and the ongoing affection shared in the relationship.

Categories

Maintaining responsibility. A major finding in this study was that older adults perceived the responsibility of pet ownership as enlightening and a privilege. Before adopting a pet, they needed to decide if they wanted a pet, and if so, what type of pet. For some, deciding to have a pet was a reflexive decision, as they had always had pets and intended to continue having pets.

For others, the decision was more contemplative; they had to weigh the benefit of having a pet against the anticipation of experiencing grief when the pet would inevitability die. Contemplation took place when the older adult had initially decided to no longer have pets in order to protect him- or herself from pet bereavement. Similar findings have been reported in the literature as reasons why older people do not have pets (Chur-Hansen et al., 2008; Risley-Curtiss et al., 2006). This is not surprising, since losing a pet can be an extreme loss (Carmack, 1991; Packman et al., 2014). Nonetheless, when presented with the opportunity to rescue an animal, participants were willing to accept another pet into their lives. Altruism was an underlying motivator in bringing the pet home. In fact, in deciding to have a pet, participants did not explicitly consider their chronic conditions, physical abilities, or available resources; however, they did take into consideration their chronic conditions, physical abilities and living environment when choosing the type of pet to have, or pet characteristics. Some participants with chronic conditions such as arthritis or osteoporosis had lifting restrictions or limitations, thus influencing the size of the pet. Other participants, in multiresidence communities, experienced environmental restrictions in the imposition of size limitations for their pets (less than 25 pounds).

Parental terms. A unique finding was that some participants did not consider themselves to be in a parental role with their pets, and did not consider their pets to be family. This differs from other studies suggesting that pets are family (Beck & Madresh, 2008; Cohen, 2002). While only a few participants in this study were clear that they did not consider themselves "pet parents," this does challenge assumptions about how people view their pets. A relationship with a pet is unique, yet at times the participants equated their animal–human relationship with human–human relationships. At this point, the lexicon for pets as family members is a combination language-melding pet terms with people terms. Future research could examine more about the uniqueness of the human–animal relationship instead of trying to fit the concept of family to every pet and its owner. Although a few participants in the study did not espouse the term *pet parent*, they did care about their pet and valued the human–animal relationship; this offers an opportunity to explore more about how pet owners view the relationship with their pet. Understanding that older adults with pets value this deep sense of responsibility toward their pets is an important concept for healthcare providers to consider.

Managing financial responsibility. The cost of veterinary/pet care could be burdensome for owners with few financial resources; they were in a balancing act in deciding not to spend extra on their pet or making sacrifices to spend less on themselves. Other participants did not describe a time they had to make a financial decision based on their pet's needs, yet, when hypothetical situations were posed about resource limitations, they disclosed that they would ensure that their pet's basic needs were met before their own. The concept of prioritizing a pet's needs is consistent with other research findings (Ascione et al., 2007; Cohen, 2002; Faver & Strand, 2003; Hardesty et al., 2013;

Rosenkoetter et al., 2007; Singer et al., 1995).

Another area for future research could include the financial implications of pet ownership on people with chronic conditions, which has not been reported in the healthcare literature but is important to consider given that pet care is currently a $64 billion industry, and growing (American Pet Products Association, 2017). People are spending more on their pets than in years past, yet the intersection between pet spending and decision making has not been examined.

Remaining independent. The older adults in this study valued remaining with their pets as they aged or their health declined. This extends findings supporting the idea that older adults may use their values and quality of life preferences to make decisions about their health instead of considering quantity of life or symptom management (Fried et al., 2008; Fried et al., 2011). The participants were also pragmatic, however, realizing that there might come a time when they might no longer be independent enough to physically care for their pet in a manner the pet deserved. This finding supports evidence suggesting that the impending loss of independence is a reason why older adults may not want pets (Chur-Hansen et al., 2008). Additionally, the inability to care for a pet in the manner it is perceived the pet deserves is a reason why people might relinquish their pet to a shelter; consequently, they may experience guilt related to the relinquishment (Shore et al., 2003). Interestingly, most participants in this study identified people in their social-support network who were willing to care for their pets should they become unable. Perhaps by making arrangements with a trusted caretaker, they may have experienced less guilt than if having to relinquish their pet to a shelter.

Making modifications. Participants provided detailed explanations of how they

made modifications to accommodate their pet's needs and still remain independent. Modifications included using a lighter-weight cat litter or using a wheelbarrow to transport heavy items. When participants were queried about hypothetical situations that might require them to consider relinquishing their pet, they described how they would tolerate the situation or make modifications to remain with their pet. Most participants had not experienced decision-making dilemmas with their pet; as such, they were asked about hypothetical situations regarding the pet's influence on decision making. In fact, when a hypothetical question was posed about relinquishing their pet if a healthcare provider recommended it, or suggested that their pet was causing them harm, participants described strategies to keep the pet. Strategies included working around the problem or finding a different provider. Findings from this study support Cohen's (2002) findings that some people would refuse to separate from their pet even against medical advice. Likewise, the findings support a case example about a woman with cancer who refused to relinquish her pet when she moved into a skilled nursing facility (McKee, 1989), and anecdotal evidence suggesting people would refuse to relocate without their pet (Chur-Hansen et al., 2009; McNicholas et al., 2005).

Living in the moment. Participants intended to live with their pets as long as possible. They lived in the moment, and had decided to face challenges as they arose, not focusing too much on the future.

Impacting well-being. *Impacting well-being* is about engaging in activities that impact well-being for both the older adult and the pet, and on occasion, benefit the pet but not the older adult. Impacting well-being has two decision-making processes: engaging with the pet and being motivated by the pet. These two processes are integrated

due to the nature of engaging with the pet. The process of *engaging with the pet* is an extension of the decision-making process *providing enriching pet care*.

Engaging with the pet. Pets influenced participants' time, emotion, and environmental setting. Participants often engaged in unique enrichment activities during playtime, lap time, and bedroom routines. Participants also engaged with their pet by sharing a bed with, and talking to, their pets. These activities represent the special bond between the older adult and his or her pet. When participants spent time with their pets, they felt an improved sense of well-being, with decreased stress, decreased loneliness, and a sense of purpose. Additionally, they specifically described the impact of their pet in preventing feelings of loneliness or depression. Owners engaged in elaborate, everyday routines of feeding and walking their pet, as described in the category *maintaining responsibility* in the process of *providing enriching pet care*. By living with a pet and engaging it in a meaningful way, they felt a sense of purpose through the nurturance they provided their pets. Participants also engaged with the pet in various intimate activities, such as spending time cuddling, kissing, and petting the pet, and sharing their bed with it. The pets were integrated into many of their daily activities, and were a routine part of life. The human–animal relationship was influential when participants were caring for themselves and their pets.

Being motivated by the pet. Pets influenced motivation toward positive health outcomes or motivation toward potentially harmful health outcomes. Owners described their pet as enhancing their life by promoting physical and emotional well-being. Those with dogs described how dogs promoted physical activity through walking. Pets influenced decisions about walking behaviors, recovery care, delaying care, and

emotional stability.

Walking behaviors. Participants with dogs believed that walking with their dog was beneficial to their physical and psychological health. Although not quantitatively measured, all of the participants with dogs engaged in daily walking behaviors. All participants believed that their dog walking was beneficial to their health; however, 2 participants specifically noted that they walked less than they had wanted because of the dogs' behaviors and/or physical limitations. The finding of walking less is similar to a study finding from Garcia et al. (2015), which suggested that while dog owners walked more that nondog owners, their walking speed was lower than nondog owners. The investigators suggested that dog owners had a more leisurely pace as a result of more social interactions. The results of the current study could extend those findings to also suggest that the dogs themselves could also impact walking pace. To broaden our understanding about dog walking behaviors, future research could explore both the human factors related to walking pace and the dog factors related to walking pace.

Recovery care. Participants were eager to resume care pet-care activities postoperatively or after an injury. They enjoyed engaging with their pet and providing care for it, and thus were motivated to resume those activities in recovery. This finding can be used to motivate people who may be less interested in recovering for their own well-being, but would do it for the pet.

Emotional stability. Participants reported that their pets knew when their condition was exacerbated or they needed help; many called it a "sixth sense" or "intuition, or said "they just knew"; the human–animal interaction influenced their emotional stability. They described how their pet was with them when their chronic

condition was exacerbated. Some participants felt their emotional well-being was improved because their pets provided them with protection.

In summary, *impacting well-being* benefits both the older adult and the pet. Older adults spend several hours per day with their pet, engaging with them by talking, playing, and providing care. They were motivated by their pet to remain healthy, and to engage in healthy activities such as walking.

In conclusion, the theoretical framework, *Filling the Empty Spaces: A theory of older adults' human–animal interactions*, represents the importance of the human–animal relationship and the ways pets influence decision making on a daily basis. The components of the framework provide specific categories for elucidating how and why pets may be influential in older adults' decision making. At time, those daily decisions can have an impact on chronic-condition management, especially when having to arrange pet care and when engaging in activities with the pet. In the following section I provide further discussion about the implications of this emerging theory.

Theoretical Discussion

Human–human-relationship theories are often used as frameworks to examine these relationships; the taken-for-granted intricacies of human–animal relationships may not be illuminated when applying human–human-relationship theories. The findings from this study offer a substantive theoretical framework to examine human–animal relationships in older adults. In this section I compare and contrast the human–animal framework posited in this study with two commonly used human–human theoretical frameworks: attachment theory and social support.

The emerging theory adds to existing frameworks used to examine the human–

animal relationship by providing a framework to uncover the pragmatic questions about the process, or the *how* and *why*, of human–animal relationships. Other commonly used frameworks, such as attachment theory and social support theories, support questions about *what* is going on in the human–animal relationship. Data provided by the older adults in this study support the concepts of attachment theory and social support, and offer another theory to examine the everyday decision making in human–animal relationships.

Attachment theory. An extensive review of attachment theory was provided in Chapter 2; therefore, only a brief overview is provided here. Attachment theory is used to explain the instinctive attachment behaviors of proximity maintenance, separation distress, secure base, and safe haven (Bowlby, 1958). Attachment behaviors are expressed in certain situations such as stress; these behaviors are not exclusive to the infant–parent relationship (Ainsworth, 1969; Bowlby, 1969), and are used to explain the dependent child–parent relationship or reciprocal adult relationships (Goodwin, 2003). Theoretical frameworks of attachment have been used to explain human–animal relationships (Beck & Madresh, 2008; Krause-Parello, 2008, 2012; Kurdek, 2009; Peacock et al., 2012; Winefield et al., 2008). Older adults in this study expressed undeniable attachment to their pets.

Social support. Social support is described as receiving psychological and material resources from others to cope with stress (Cohen, 2004; Cohen & Syme, 1985). Cobb. Cobb (1976) and Cohen and Wills (1985) suggested the categories of emotional support, informational support, social companionship, and tangible instrumental support. Support may be viewed as actual support or perceived support (Uchino, 2006). Social

support is a moderator for stress in chronic conditions, and a predictor of morbidity and mortality (Holt-Lunstad, Smith, & Layton, 2010; Uchino, 2006).

Social support is further described as either a main effect or buffer effect (Cohen & Wills, 1985). A main effect suggests that regardless of stress, positive interactions with social supports can contribute to overall well-being. A buffering effect suggests that social support may buffer stress before or after the event has occurred, suggesting that people without social support have worse health and well-being than those with social support (Cohen & McKay, 1984). Berkman and Syme (1979) evidenced this in a 9-year longitudinal study which demonstrated that those who reported social support had better mortality rates, independent of socioeconomic status and health behaviors. Longitudinal studies about the benefits of human–animal relationships suggest that the buffer effect is evident when someone perceives his or her pet as helpful in stressful situations (Siegel, 1990), and thus report less stress during stressful events as compared to individuals without pets (Raina et al., 1999). Buffering can further be extended to situations of loneliness, depression, and social isolation; living with a pet may buffer some of the negative effects of living in these conditions (Krause-Parello, 2008, 2012). Data from this study support these findings in that many of the older adults in this study endorsed that living with a pet made them feel less lonely.

The benefits of social support may be due to connection to a social network that is available during stressful events (Cohen & Wills, 1985). Traditional sources of social support include family and friends (Badger, 1993; Hupcey, 1998), and evidence suggests that pets can also provide social support (Pachana, Massavelli, & Robleda-Gomez, 2011); however, one critique is that the human–human attachment frameworks and social-

support frameworks do not include pets as an available attachment or social connection. Thus, when considering the benefits of having such connections, it is advantageous to include frameworks specific to uncovering the role of pets in relationships.

Attachment, social support, and filling the empty spaces: A theory of human–animal interactions in older adults. Certainly from interviewing the older adults in this study, components of attachment theory and social support were described in some manner. For example, they experienced stressful situations such as illness and grief; interactions with their pets during these stressful times supported attachment behaviors. There are conceptual similarities for the attachment behaviors of secure base and safe haven within the emerging theory's category of *impacting well-being* that include engaging with and being motivated by the pet. The participants described the emotional stability contributed to by their pets in times of grief, stress, and anxiety. They talked to their pets and felt safe to be vulnerable around the pet. This finding is supported by evidence suggesting that people feel safe and secure when a pet is around (Kurdek, 2009); when the pet is anthropomorphized, the owner is more likely to consider the pet to provide a greater amount of support (McConnell, Brown, Shoda, Stayton, & Martin, 2011). Moreover, many participants lived alone, and some expressed that they were estranged from their family or that their pet was more important than other human–human relationships; hence, their pet became a source of emotional stability in times of stress. This finding further extends the idea that for some, pets are a sought-for emotional support more often than friends or kin (Castelli et al., 2001).

With the exception of the main effect in social support, the assumption in social-support and attachment theories is that the behaviors are triggered by stressful events;

however, data from this study move beyond the benefits of pets during stressful events. The theoretical framework is broad and suggests that older adults do not require a stressful event to decide to engage with, and feel enhanced well-being from, their pets. This aligns with the social-support concept of a main effect, that regardless of stress, social supports enhance well-being. Furthermore, if attachment theory's concept of proximity maintenance is examined in the absence of a stressful event, there is overlap with the emerging theory's contexts of time, emotion, and environment. Older adults spent many hours close to their pets during shared activities, and some even shared a bed. They described pets as always being around in the environment, and a desire to be near their pets. There was a pragmatic component as well: being retired meant that the older adult was home more, and quite simply, they were both in the same place at the same time. Thus, retirement also contributed to being around the pets more, not necessarily the need to engage in attachment behaviors. Therefore, using attachment theory and social-support framework originally intended to examine relationships during stressful events can be limiting when examining human–animal relationships, because those relationships can exist with and without stress.

To summarize, within this study, older adults described the social support they received from their pets. They valued nurturing and caring for their pets, talking with their pets as if the pets understood them, and spending leisure time engaging with their pets. Some perceived their pets to provide aid and protection. They endorsed being attached to their pets and engaging in attachment behaviors. The participants wanted to be near their pets (proximity maintenance), were concerned about their pets when separated, and were eager to reunite with the pet (separation distress); some perceived

that their pets provided a sense of safety in their environment (secure base), and many sought their pets for comfort (safe haven). Although the participants endorsed elements of attachment theory and social-support theories, they elaborated on the nuanced complexities of their human–animal relationship. The theoretical framework presented here provides a framework to uncover the decision-making processes that influence older adults to feel attached to their pets and perceive social support even during nonstressful situations. Filling the empty spaces, a theory of human–animal interaction in older adults, extends how we understand human–animal relationships beyond the *what* of attachment theories and social-support theories to elaborate on the *why* and *how* people make decisions to support and maintain those relationships.

Implications

Education Implications

The findings from this study support the need to educate health professionals about relationships with pets. Curricula about human–animal relationships primarily reside in the realm of animal-science and animal-welfare education. Content about human–animal relationships has not been infused into education for healthcare professionals (e.g., nurses, physicians, social workers); however, for several reasons, educating healthcare professionals about human–animal interactions will be imperative for them to effectively support person–centered care for individuals who value their human–animal relationships. First, participants described the importance of pets in their life and their daily activities; a majority of these activities were caring for, being around, and engaging with the pet. Most participants had owned pets since childhood; therefore, taking a lifespan approach to the benefits of human–animal interactions could be

beneficial to understand the longitudinal perspective of pet ownership.

Second, most participants stated that their providers knew little to nothing about their human–animal relationship. Healthcare professionals need to be educated to ask about the complex relationships people have with their pets, and understand how those relationships can impact decisions about health behaviors (e.g., walking, stress-reduction activities). When providers have an understanding of the human–animal relationship, they can leverage the relationship to promote health in ways meaningful to the patient.

Lastly, there are misconceptions about the types of human–animal interactions and the role of animals in those interactions. Curricula for healthcare providers should differentiate between service animals, emotional-support animals, animal-assisted therapy, and pets. Some participants in this study noted that their providers wrote a letter supporting the human–animal relationship, and hoped the letter would provide access privileges while their pet was in public spaces; however, providers need to understand the specific differences between service animals as defined by the Americans with Disabilities Act Title II Regulations (2016) and the less-regulated use of emotional-support animals. In fact, there have been legal debates about fair access to housing and emotional-support animals on college campuses (Masinter, 2015). Differentiating between the roles an animal has, and access privileges related to various animal designations, will facilitate providers making informed decisions about how to best support the human–animal relationship.

Policy Implications

Findings from this study suggest that older adults managing chronic health conditions want to remain with pets throughout their lifespan, and have implications at

the local, state, and national levels.

Local policy recommendations. Findings from this study suggest that pet owners are interested in being asked about their pets and want options for pet visitation should they become hospitalized. Healthcare facilities (e.g., hospitals, skilled nursing, assisted living) should consider the importance of pets for older adults and reconsider policies to be more inclusive of pet visitation. Participants in this study considered methods to "sneak" their pet into the hospital to promote healing and comfort. Currently, many hospitals prohibit pet visitation due to potential infection risks related to zoonotic disease transmission.

Zoonotic diseases are transmitted from animals to humans or humans to animals. A common concern about pet visitation or ownership is the potential for zoonotic disease transmission. This is especially concerning for vulnerable populations such as young children, older adults, and immunocompromised people. Despite risks for zoonotic transmission, these risks are reduced when specific precautions are implemented; for example, using universal precautions, simple hand hygiene, vaccinating the pet, and bathing the pet could minimize the risk of potential zoonotic exposure (Elad, 2013; Hemsworth & Pizer, 2006). Additionally, individuals handling the animal should use common practices such as hand washing. Therefore, it may be unwarranted to prohibit pets from visiting the hospital or to recommend pet relinquishment in vulnerable populations; instead, healthcare providers could reinforce measures to minimize zoonotic risk. In fact, many hospitals already allow animal-assisted therapy visitation when guidelines (e.g., previsit bathing, vaccinations, pest control, and training) are met.

Arguably, these same hospital guidelines could be implemented for personal pet

visitation. If fact, some hospitals have created specific pet visitation guidelines (Sehr et al., 2013; University of Maryland Medical Center, 2017). Other institutions could implement versions of these guidelines to support pet visitation.

State policy implications. Many participants in this study had social-support networks to care for their pets when they were separated; however, they also expressed concerns they had about arranging pet care, and expressed thinking about their pet when they were separated. Fortunately, the participants had identified people they trusted to care for their pets; however, not all pet owners have this experience. There are those who identify as socially isolated, with no one to call upon to care for their pets. State resources should support policies for temporary shelter arrangements in the event that someone who is socially isolated or economically marginalized needs to seek urgent medical care. Currently, there are no state-funded programs to support temporary pet-shelter options. Similar to the federal Pets Evacuation and Transportation Standards (PETS) Act of 2006 to provide emergency evacuation shelter for pets, states should consider adopting a similar model for those seeking urgent medical care.

National policy implications. Within the healthcare setting, there are currently no federal guidelines for caring for people with pets; there is an opportunity for the Humane Society of the United States and Medicaid to partner to provide these guidelines. As noted in previous studies and anecdotal reports, pet owners with limited resources are at risk for making decisions that could lead to suboptimal self-care. Given the importance of pets in supporting emotional stability and promoting healthy behaviors, national guidelines are needed to assess for pets in the home, the impact of pets on the health of the individual or family, and recommended interventions to maintain the human–animal

relationship. These guidelines should be developed in collaboration with nurses, physicians, veterinarians, and other relevant stakeholders.

Practice Implications

Person-centered care is about ensuring that the perspectives and values of the individual, family, and community are considered with a holistic attitude when planning care (Coulourides Kogan, Wilber, & Mosqueda, 2016). The participants in this study valued their relationship with their pets, and many considered their pets as important family members.

Assessing for pets in the family. Understanding the importance of pets in the lives of older adults is essential for healthcare providers in order to engage in person-centered care. Many participants sought to maintain the human–animal relationship through the end of life. Findings from this study illuminate the intimate involvement some owners had with their pets, from waking in the morning, to daytime activities, to cuddling in bed at night—pets were an ever-present priority.

Recently, the Patient-Centered Outcomes Research Institute (PCORI) issued a white paper by Blaum et al. (2017) about a program called Patient Priorities Care. This program encouraged providers to focus on uncovering the patient's priorities regarding goals of care, and to place less emphasis on the provider's priorities for disease-based goals of care (Blaum et al., 2017). Research has already established that older adults tend to focus on quality of life (Fried et al., 2008) and independence (Fried et al., 2011) rather than on disease-specific outcomes (Fried et al., 2008). Indeed, participants in this study articulated how their pet enhanced their quality of life and their intention to remain with their pet through their own lifespan.

Most participants revealed that their providers knew very little, if anything, about their relationship with their pets. This finding is not surprising considering that social workers (Hanrahan, 2013; Risley-Curtiss, Zilney, & Hornung, 2010), physicians (Stull et al., 2012), and researchers (Ryan & Ziebland, 2015) do not regularly assess for pets in people's lives. Although some hospital nurses are assessing for pets in the family (Sehr et al., 2013), there are opportunities to expand this practice beyond the hospital setting. Hence, it is essential for healthcare providers to assess for pets in the home and the value of the human–animal relationship for the individual.

Assessing for pets in the home can be a simple yes/no question asking if pets are in the family (Hodgson et al., 2015). Most participants in this study related to their pets as family; however, a couple of participants were clear that their pets were not family. A more general assessment question could be, *Do you have pets in the home?* That could be expanded on to ask how attached or bonded people feel towards their pets. While many participants reported feeling bonded to their pets, quantitative measures suggest there is a continuum of attachment (Peacock et al., 2012); therefore, it should not be assumed that all people with pets are highly attached and consider pets as family, though research supports that this is true for a majority of pet owners (Cohen, 2002). Nevertheless, keeping with the frame of symbolic interactionism and patient-centered care, it is crucial to ask the individual about their unique human–animal relationship.

Uncovering information about the human–animal relationship can be useful to discuss pet-related activities and leverage the relationship to promote health; for example, dog walking can promote physical activity, positively impacting health (Curl, Bibbo, & Johnson, 2016). Yet, in this study, some participants revealed that their dog influenced

less-than-ideal walking behaviors, while others reported that their dog influenced engaging in more walking behaviors; therefore, asking people if they walk their dog is not sufficient to leverage the human–animal relationship to promote health.

Healthcare professionals need to probe more deeply to uncover an individual's experience with their pet and how they perceive their pet to influence their health; only then can providers use the information to plan person-centered care. For example, does the person have a dog they can walk every day? If so, how far do they walk, for how long, and how often? The healthcare professional can use this information to encourage physical activity. If the person has a cat, how do they play with the cat? Do they move about the house with a toy or string, or play with a piece of paper or ball? Do they brush or pet the cat? These kinds of cat-related interactions can promote healthy activity in someone with limited mobility. Nurses and other health professionals should be asking about pets in the home. Starting that conversation can establish rapport with patients (Hodgson et al., 2015), assessing the importance of the human–animal relationship for the individual, and the meaning of that relationship.

Healthcare professionals should also know whom to access for a pet-related concern. Nurses, especially, are well positioned to connect people with pet-related resources, because nurses already connect people with resources and services, assessing what is needed to assist a particular client. For example, if a person has difficulty affording the care of their pet, the nurse may connect the individual with a social worker to help them access pet-related community resources. Does the individual have limited mobility, requiring assistance with pet care activities such as walking, feeding, and toileting? Perhaps a home health aide could assist in pet-care chores.

The PCORI paper by Blaum et al. (2017) on Patient Priorities Care also emphasized providing anticipatory guidance for patients to help them plan even in uncertainty. Many participants in this study had already established pet-centric networks; arranging pet care was one of the primary decisions they made. This was not a barrier to obtaining health care; however, it was clear that there were expectations when leaving their pet with someone else: the pet caretaker needed to meet certain standards determined by the older adult. These standards included fulfilling basic care needs, but participants also wanted their pets to have enriching pet care, as described in Chapter 4. Fortunately, most owners established relationships with people who cared for their pets during travel or in case of an unplanned event. It has been suggested that without prearranged pet care, people who are hospitalized might discharge from the hospital against medical advice due to concerns about their pet at home (Hwang, 2005). Anecdotally, clinicians report canceled or delayed surgical procedures when pet care has not been arranged; therefore, it is important to ask older adults with pets if they have a plan in the event they become unavailable or unable to care for their pet, and help them devise a plan if needed. This advance planning for pet care may prevent delays in obtaining needed care.

Participants in this study also described the realities limiting their ability to keep a pet when their functional abilities and independence declined. They expressed a desire for their pet to receive the care it "deserved," and recognized that declining health could impact the level of care they wanted for their pet. Furthermore, some owners living in communities with progressive levels of care noted that they would have to give up their pet when they "moved over." The idea of living without a pet was "unimaginable" or

"devastating" for some, however. How do we as healthcare professionals support the human–animal relationship throughout a patient's life trajectory? One possibility is to include pet-sitting services for those living in a skilled facility. As described in this study, pet care includes providing food, water, elimination opportunities, and physical activity through play and/or walking. Pet-sitting services already exist to support this, and some home health services include pet care (Community Home Health Care, 2017). Healthcare professionals should include those services when developing individualized patient care plans.

Another option is co-ownership, in which an older adult who is declining is partnered with a more able-bodied pet owner to share a pet and regularly visit the older adult, who may be residing in assisted living, skilled nursing, or in the hospital. This model would fulfill the older adult's need to have an ongoing relationship with their own pet and their desire for the pet to receive the desired level of care.

Research Implications

The findings, substantive theory, and limitations from this study offer opportunities for further research. First, many participants clearly intended to keep their pets as long as possible. The concept of enduring pet ownership needs further exploration to identify whether co-ownership is a feasible and accepted intervention for older adults experiencing declining health.

Second, measures could be developed specific to an older adult's intention and boundaries for pet keeping. Measures for pet commitment (Staats, Miller, Carnot, Rada, & Turnes, 1996) focus more on the intention to keep a pet with behavioral or health problems and less on an older adult's intention to keep a pet despite their own health

concerns. Other researchers have alluded to the intention of pet keeping by persons managing chronic conditions such as cancer (Larson et al., 2010), chronic fatigue syndrome (Wells, 2009), and HIV/AIDS (Castelli et al., 2001; Kruger et al., 2014); however, strategies for pet keeping are lacking. Participants offered specific strategies and modifications that supported pet keeping even with the changes they experienced in their functional ability and health; the substantive theory generated from this study could be used to further explore strategies and modifications to keep pets.

Third, participants were recruited from the community; thus, there are opportunities in future research to recruit participants in specific healthcare circumstances, such as those who have left the hospital against medical advice, those who have cancelled surgical procedures, or those who have delayed or declined hospital admission because of their pets. In this study, no participants delayed hospitalization, and only one participant decided to forgo treatment. Anecdotally, these are situations in which pets become influential in decision making. While one impetus of the study was to further explore that phenomenon, access to hospitalized patients was unexpectedly denied. Even so, participants elucidated their standards to provide enriching pet care, arrange pet-friendly care, and have their pets in an environment that supported the animal's comfort and welfare. Future research could specifically examine if these pet-related values hold true in the healthcare situations listed above.

Lastly, it has been suggested that people living alone may have difficulty arranging pet care (Friedmann et al., 1983; Manor, 1991); however, data from this study revealed that many participants, living alone or with others, had strong social-support networks to aid in pet care. Although participants were still concerned about their pet

when they were away, they utilized their social-support networks to provide pet care in their absence. Future research could examine if individuals who identify as being socially isolated have pet-related social networks even in their isolation.

Overall, specific questions for future research include:

- What conditions support pet ownership for individuals with declining health?
- What are pet-related barriers to seeking medical care for hospitalized older adults?
- Compare and contrast the pet-related influence on decision making for younger adults with chronic conditions as compared to older adults with chronic conditions.

In sum, there are many implications for education, policy, practice, and research. Educational opportunities could include content about human–animal interactions in healthcare provider curricula (e.g., medicine and nursing) to increase awareness about the types of human–animal interactions and the importance of these relationships. From a policy perspective, liberalizing pet-visitation guidelines could support person-centered care. In the practice arena, healthcare providers need to inquire about the role of pets in the home and leverage the human–animal relationship to promote health and facilitate problem solving if barriers exist. Finally, in the realm of research, several opportunities exist to apply the substantive theory, *Filling the Empty Spaces: A theory of human–animal interactions in older adults*, to research questions further examining human–animal relationships.

Limitations and Strengths

Limitations

This study was limited to participants who spoke English, lived with a pet, and were from a limited geographically area. This limits transferability to other older adults, both with and without chronic disease. Another limitation to this proposed study is the general approach to chronic conditions, which are not equivalent and present with different physical symptoms, limitations, and illness trajectories; therefore, health decision making may differ within differing illness trajectories. For example, a person with an arthritis exacerbation may not have to make life-preserving decision in the same way someone with a heart-failure exacerbation may need to make. Another limitation was in the health of the participants. Initially, in an attempt to recruit a variety of illness trajectories and experiences, I had intended to recruit from the hospital setting; unfortunately, the request to do so was denied. While most participants did have chronic conditions, few had experienced hospitalization, and those experiences were limited. As such, they were successful in maintaining their chronic conditions without having to engage in decisions that might have resulted in prioritizing their pet over their own self-care.

Just as chronic conditions are not equivalent, neither are pets. The relationship and amount of care required differs based on the type of animal. For example, dogs usually require walks or an outdoor area for their elimination and exercise needs, while cats' elimination needs can be met exclusively indoors. Therefore, a person with a dog may be less likely to be away for more than 24 hours (Chur-Hansen et al., 2009) due to these needs, while a person with a cat may choose to be away for several days if they believe there is sufficient food and water available. These different care needs may result in varied impacts on pet influences of health decisions. Future research could explore a

specific chronic condition and specific type of pet to elucidate differences in health decisions.

Strengths

This study drew on the findings of prior pet-related decision-making research from Friedmann et al. (1983) and Cohen (2002) to further elucidate the influence of pets on older adults' decision making. First, this was the first study to directly ask older adults with chronic conditions how pets were influential in chronic-condition management, extending Friedmann et al.'s (1983) early research examining the influence of pets on older adult's decisions to be hospitalized. Although participants did not articulate how their pets were influential in chronic-condition management, they did describe how their pets were influential in everyday decision making. Second, similar to Cohen's (2002) approach, participants were also asked hypothetical questions about how pets would influence decision making, providing further support that although individuals may not have encountered an actual dilemma, their intentions were often to prioritize the care of their pet over themselves. Third, the participants represented a range of older adults from various socioeconomic statuses and with varied chronic conditions. Their ages ranged from the 60s to more than 90 years of age, representing a broad range of older adulthood. Additionally, although few in number, ethnic minorities were represented. Finally, this study offers a new framework to examine human–animal relationships.

Summary

This was a qualitative investigation using grounded theory methodology. The purpose was to explore and describe the influence of pets on older adults' decision making and chronic-condition management. Participants were recruited using various

recruitment methods. Semistructured individual interviews were conducted with 20 community-dwelling adults aged 60 or older, with at least one chronic health condition and a relationship with a pet. Participants were asked to describe past experiences (or conceivable situations) in which their pet influenced their decisions. Data collection and analysis occurred concurrently, using an inductive/abductive analytic process of constant comparison, coding, categorizing, and theorizing. Theoretical sampling continued until theoretical saturation was achieved and no new concepts emerged from the data. An initial grounded theory was refined that accounts for variation within the phenomenon.

Study findings support the concept that older adults value the relationship with their pet, and many have a desire to remain with their pet throughout life. The findings challenge healthcare professionals to be more inclusive when considering what constitutes a supportive figure in the life of an older adult. One could consider this area of research almost analogous to the work done by Claire Fagin (1962), when she proposed that children in intensive care units needed to have more frequent contact with their parents, and advocated that visitation rights should be liberalized. Now, in 2017, healthcare providers cannot imagine restricting parental visitation for children in the hospital. Traditional ideas about what family is now include fictive kin, and have moved to a more liberalized view of family. Nursing has an opportunity to move toward a liberalized view in which pets are important members as the household. This is also aligned with how nurses practice a holistic approach to person-centered care, accepting people and their values, even if those values differ from their own. Certainly, the nursing profession is at the forefront of acknowledging that pets are important to some people, and are shaping policies to support this relationship. Even Florence Nightingale (2008),

the mother of nursing, wrote about the comfort an ill person experiences when a pet is in the room.

Furthermore, as people age and their social networks change, their pets become very important. Consider that some people are lifetime pet owners; that is, they have had a pet their entire life, they remember growing up with a childhood pet, they had a pet before having a spouse or children, and their pet may have been more of a confidant than their friends or siblings growing up. People have pets to allow their children to grow up with pets; when the children leave the house they may still have pets. The widowed person who had a pet with his or her spouse may cling to that pet even more closely after death, as a symbol of the relationship with their spouse. One can imagine the dilemma of having a pet their whole life, and now as an older adult managing a chronic condition and being asked to give up a pet to move or because the care needs of the pet are too much to manage alone.

Conclusion

The findings from this study make an important contribution to research by validating many of the anecdotal findings and early works about the influence of pets in decision making. The findings also challenge assumptions that not all people with a pet consider their pet as family; however, they do consider their pet as an important part of their life. Additionally, the findings add a deeper understanding of the complex ways people engage with their pet. It is now understood that not just any pet care will do, but pet care must be provided by a trusted individual who will care for the pet to the standards set forth by the owner. This means that we need to help people consider the unexpected, and have them make a plan for an unforeseen event when they might need to

be away from their pet. This study adds an emerging theoretical framework to consider how living with a pet influences everyday decisions in the lives of older adults. *Filling the Empty Spaces: A theory of human–animal interactions in older adults* can be used in future research to examine perceptions about maintaining responsibility for a pet, to uncover intentions and strategies to remain living independently while caring for a pet, and to explore how to leverage the human–animal relationship to support health behaviors that positively impact health and well-being.

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APPENDIX A: STUDY PROTOCOL

1) **Protocol Title**
The influence of pets on older adults' decision making: A grounded theory study

2) **Objectives**
The purpose of this study is to explore and describe the influence of pets on older adults' decision making and chronic health condition management. The specific aims are to (a) describe how pets influence older adults' decision making, and (b) develop an initial substantive grounded theory framework of the influence of pets on older adults' decision making.

3) **Definitions**
- **Pets** are defined as domestic animals that live with or receive daily contact from their human counterparts (American Society for the Prevention of Cruelty to Animals (ASPCA), 2013), and a domesticated animal kept for pleasure rather than utility (pet, 2016).
- **Service animal** means any *dog* that is individually trained to do work or perform tasks for the benefit of an individual with a disability, including a physical, sensory, psychiatric, intellectual, or other mental disability (Americans with Disabilities Act, 2016).
- **Therapy animals** provide affection and comfort to various members of the public, typically in facility settings such as hospitals, retirement homes, and schools. These pets have a special aptitude for interacting with members of the public and enjoy doing so. Therapy animal owners volunteer their time to visit with their animal in the community (Pet Partners, n.d).
- **NOTE: This research WILL NOT be conducted on animals.** This research is about the relationship older adults have with their ***pets***. This research is *not* about service animals or therapy animals.

Living with a pet can be beneficial to health and well-being. A growing body of evidence has led the National Institutes of Health (1987, 2009) and the American Heath Association (Levine et al., 2013) to endorse potential benefits (i.e., decreased blood pressure, increased physical activity, and decreased stress) from relationships with pets. While we know pets are good for our health, there is limited evidence about how pets influence decisions for older adults with chronic conditions. Eighty percent of older adults have at least one chronic condition such as heart disease, cancer, stroke, diabetes, and arthritis (Centers for Disease Control and Prevention, 2011). Chronic health condition management requires ongoing decisions by the older adult. When older adults make decisions about chronic health conditions, they do not necessarily consider disease-specific related outcomes, but instead consider health outcomes such as quality of life (Fried, McGraw, Agostini, & Tinetti, 2008). If faced with tradeoffs between quantity and quality of life, older adults are more likely to choose quality of life (Case, Towle, & Fried, 2013) and prioritize their independence (Fried, Tinetti, Agostini, Iannone, & Towle, 2011). Additionally, decisions are influenced by factors such as family and friends, and pets are often considered family members (Bonas, McNicholas, & Collis, 2000; Cain, 1983,

Cohen, 2002; Gallant, 2003). Thus, a pet could become an influence in decision making.

Pet-related influences in decision making have been studied in contexts of risk such as *intimate partner violence* (Ascione et al., 2007; Faver & Strand, 2003; Hardesty, Khaw, Ridgway, Weber, & Miles, 2013), *homelessness* (Singer, Hart, & Zasloff, 1995), and *natural disasters* (Rosenkoetter, Covan, Cobb, Bunting, & Weinrich, 2007). The research findings suggest that people may refuse interventions that adversely impact their pet, choosing instead to remain in these perilous situations, putting the person and pet at risk for harm. Furthermore, anecdotal reports suggest that older adults with chronic health conditions may decide to forego or delay medical interventions in order to remain with and care for their pet (McKee, 1989; McNicholas et al., 2005; Morley & Fook, 2005; Netting, Wilson, & New, 1987). However, there is limited scientific evidence about how pets influence decisions of older adults with chronic conditions. Three studies have directly explored pet influences on health conditions (Cohen, 2002; Friedmann et al., 1983; Peacock et al., 2012). One study identified that hospitalized patients with chronic health conditions perceived their pet-related concerns to be influential on their decision to enter the hospital; concerns included arranging care for their pet and the pet's welfare during their separation (Friedmann, Katcher, & Meislich, 1983). Two other studies reported that pets were influential when people were faced with hypothetical dilemmas that included decisions about healthcare recommendations (Cohen, 2002; Peacock, Chur-Hansen, & Winefield, 2012). Participants reported that they would not give up a pet if it was causing them health problems (Cohen, 2002) and they might not have surgery if it meant separation from their pet (Peacock et al., 2012).

Gaps exist about pet influence on older adults' decision making. There are limited data about the decision-making process and pet-related factors that influence decisions; the full scope of situations that would lead to such decisions is unclear. Findings from the study will broaden our understanding about how pets influence older adults' decision making by asking the older adult to elaborate on how pets influence their decisions. The study will also offer a novel framework about the decisional process of older adults living with a pet in the context of managing a chronic condition. The framework will provide a foundation for future research in designing and testing interventions specific to older adults managing chronic health conditions and living with a pet.

4) **Study Design**

This is a prospective, qualitative investigation using grounded theory methodology. Participants will be recruited through four Oregon Health and Science University family medicine clinics. Semistructured individual interviews will be conducted with up to 30 community-dwelling adults aged 60 or older, with at least one chronic health condition and a relationship with a pet. Participants will be asked to describe past experiences, or conceivable situations, about how their pet has influenced decisions. Data collection and analysis will occur concurrently, using an inductive/abductive analytic process of constant comparison, coding, categorizing,

and theorizing. Theoretical sampling will continue until theoretical saturation is achieved and no new concepts emerge from the data. Then a grounded theory will be refined that accounts for variation within the phenomenon.

5) **Study Population**

a) Number of Subjects

A set sample size is not predetermined in grounded theory methodology; however, at least 20–60 interviews from 20–50 participants are anticipated in order to obtain rich, thick descriptions to develop a substantive theory (Charmaz, 2014; Creswell, 2013). Some participants may be interviewed more than once. It is anticipated that 50–75 participants will be screened to determine eligibility.

b) Inclusion and Exclusion Criteria

Participants responding to recruitment materials will have a brief phone conversation with the coinvestigator (Basin) to initially screen for age, self-reported chronic health conditions, and presence of a pet. If the inclusion criteria are met and the participant is willing to participate in the study, then an interview will be scheduled. The phone screening will be a verbal process; no retrievable information will be documented. If the inclusion criteria are not met during the screening interview, any information gathered will be destroyed immediately.

Inclusion Criteria

1) Age 60 or older
2) English proficiency
3) Self-report of at least one chronic health condition (e.g., diabetes, heart failure, arthritis)
4) Self-report of a relationship with a pet

Exclusion Criteria

1) Non-English speaking. (According to the OHSU IRB Human Research Protection Program Investigator Manual (2014), research participants with limited English-language proficiency must be able to engage in the processes of consent and research, including all written materials, in a language of their own proficiency. As I am proficient only in English and there exist no resources appropriate for such translation services in this doctoral project, this study will be conducted only among those with English proficiency.)
2) Self-reported diagnosis of a major cognitive disorder (e.g., dementia) or cognitive difficulties limiting the ability to complete the consent and engage in an interview.

c) Vulnerable Populations

Participants recruited for this study are not considered vulnerable. The data collected for this study are not expected to identify whether subjects are part of any vulnerable population.

d) Setting (Single-Institution Study)

Interviews will be conducted in the participants' residence or, if the participant prefers, in a private room at OHSU or other private location the participant prefers. The setting of choice needs to have adequate privacy and confidentiality, and ensure that the environment is free of excess noise that would hinder the quality of the audio recording.

e) Recruitment Methods

Several approaches will be used for recruitment. The investigator will **not** initiate contact—it is the responsibility of potential participants to contact the investigator for information about the study and eligibility screening. (Example uploaded through eIRB for review and approval).

1. **Fliers:** Participants will be recruited from the four Family Medicine Clinics (Richmond, Gabriel Park, South Waterfront, and Scappoose) at OHSU. These clinics were selected because they have 175,000 outpatient visits per year and their health providers routinely manage persons with chronic health conditions. Recruitment **fliers** will be posted in the waiting rooms of the clinics. Recruitment fliers will also be posted in physician workrooms and the nurses' lounge on the Family Medicine inpatient unit(s) at OHSU Hospital. Prior to posting fliers in the clinics or hospital workrooms, a coinvestigator (Basin) will meet with the nurses and physicians to discuss the study and participant eligibility. The physicians or nurses can give the fliers to any patients who may be potential participants for the study; however, nurses and physicians are not obligated to recruit participants and will **not** engage in eligibility screening or the consent process.
2. **Network sampling** is a recruitment technique that leverages personal networks (Fain, 2009). It can be assumed that people who have pets know other people with pets. Therefore, enrolled participants will be invited to share recruitment materials with other older adults who have pets. Network sampling will also be used when nonparticipants become informed about the research. Nonparticipants will be invited to share recruitment materials with older adults who have pets. In either situation, the investigator will **not** request contact information—it is the responsibility of the potential participant to contact the investigator for information about the study and eligibility screening.
3. A **contingency plan** for recruitment is to place fliers in public spaces. With permission, fliers will also be placed in the community with local veterinary/pet services, senior centers, and with social services agencies.

Upon completion of the interview, participants will receive a $20 gift card to a major pet-supply store. Any participant who has a follow-up interview will receive an additional $20 gift card to a major pet-supply store. Participants who are unable to complete the full interview will also receive a $20 gift card to a major pet-supply store.

f) Consent Process

- *There is no more than minimal risk involved in participating in interviews. The potential risks to study participants will be minimal and limited in scope to emotional responses related to the primary data collection method of engaging in semistructured interviews.*

When receiving inquiries from potential participants, each participant will be screened for eligibility via a telephone conversation using a standardized script (example uploaded to eIRB for review and approval). If eligible, participants will be invited to participate in the study and an interview will be scheduled.

At the beginning of the scheduled interview, but prior to data collection, participants will be provided an information sheet (example uploaded to eIRB for review and approval) about the study purpose, procedure, risks and benefits, and the voluntary nature of participating. Participants will be encouraged to ask clarifying questions. Participants will be asked to state in their own words that they understand their rights as research participants. Agreeing to participate in the interview will indicate consent. If participants appear burdened (e.g., crying, disengaging with the interviewer) at any point during the interview, they will be reminded that they can take breaks, stop the interview, choose not to answer questions, and/or withdraw from the study at any time without penalty.

6) **Procedures**

Step	Visit 1	Visit 2	Visit 3 (Optional)
Contacts investigator about participation; screened for inclusion (5–10 mins)	X		
Meets with investigator to enroll in study, consent to participation. Receives instruction about ongoing consent and is asked for permission to continue; may withdraw at any time.		X	X
Meets with researcher for data collection interview and demographic form (approximately 60–90 min.)		X	X
Meets with researcher for second data-collection interview (approximately 60–90 minutes)			X

Specific Procedures

1. Complete the initial eligibility screening over the phone with coinvestigator.
2. Schedule a convenient time for the interview. The interview will be done in a location of participant's choice of home or a private office.
3. At the time of the scheduled interview, the coinvestigator will review the information sheet and answer any questions the participant may have.

Participating in the interview will serve as consent to participate in the study. The participant can withdraw at any time without penalty.

4. The coinvestigator will ask if the participant is willing to participate in a follow-up interview if needed; the follow up interview is optional.
5. The participant will complete a verbal semistructured interview with the coinvestigator. Semistructured interviews allow for ideas to flow freely from the participants (Creswell, 2009; Glaser & Strauss, 1967), thereby generating rich contextual data for analysis. The interviews will be approximately 60–90 minutes in length, allowing for prolonged engagement with each participant. An initial interview guide will serve as a prompt to elicit participants' descriptions about the meaning of the relationship with their pet and the pet influences on their decisions. Examples of initial interview prompts include (a) *Tell me about your relationship with your pet*; (b) *What does this relationship mean to you?*; and (c) *Tell me about a time when you made a decision to do something, or not do something, because of your pet*. (Example uploaded to eIRB for review and approval).
6. If a follow-up interview is needed, the coinvestigator will contact the participant within a month of the first interview. Participants will indicate permission for contact on the demographic form. The follow-up interview will elicit additional information to better understand the relationship they have with the pet.
7. After the interview, the participant will complete a brief demographic form. This form will ask about the participant's age, gender, education, income, health conditions, relationship with the pet, and care responsibilities for the pet (example uploaded to eIRB for review and approval).

7) **Data and Specimens**

a) Handling of Data and Specimens

- *Participant interviews will be recorded using a digital audio device. Recordings will be electronically transferred to a secure encrypted drive for storage. Electronic audio recordings will be securely transmitted to a contracted professional transcription service.*
- *All transcripts will be de-identified to protect confidentiality and identity for each research participant.*
- *There will be only one separate and distinct document created to link the specific participant to his or her pseudonym and participant number. All documents, electronic or otherwise, will kept in a locked drawer in a locked office for storage. Electronic documents will be kept encrypted for safety.*
- *Demographic questionnaires will be collected via paper and will be labeled with a participant number.*
- *Audio recordings will be destroyed after the study. All other data will be kept secured indefinitely.*

b) Sharing of Results with Subjects

The study results will not be shared with the participants. This is a qualitative study using individual interviews to learn how pets influence older adults' decision making; there is no risk of incidental findings.

c) Data and Specimen Banking

No data will be banked in a repository.

8) **Data Analysis**

a) Constant comparative analysis: Constant comparative analysis, a hallmark of grounded theory, begins with initial coding of the first interview transcripts and continues throughout the study to compare between data, codes, categories, and theoretical concepts. Constant comparative analysis requires the investigator to move between the interviews and codes, constantly comparing across the data. This iterative process facilitates data analysis to move towards the creation a substantive theory.

b) Coding: Through the process of coding, labels are created for the data that allow for a definition of ideas and an early understanding of the data. Through coding, the investigator is moving away from the concrete words of the data, but staying close to the ideas in the data. Coding is a nonlinear, iterative process of data analysis that moves through initial coding, focused coding, and axial coding.

Initial coding data will be done line by line, with special attention to the participant's own words.

Focused coding is when the most significant initial codes are analyzed again across the data, and then further refined to generate categories.

Axial coding will be used as an emergent analytic strategy to conceptualize links between data and ideas. The separate pieces of data from categories are conceptually reanalyzed to construct links between the categories.

c) **Categories** are further analyzed for their defining characteristics, known as *properties,* and range of variation in the properties, known as dimensions. The properties and dimensions of a developing category are further refined to generate theoretical constructs describing how pets influence older adults' decisions.

d) **Memos** will serve as rich data to be coded for analysis. Memo writing by the investigator is integral to grounded theory methodology and is used throughout the study to compare data, codes, categories, and theoretical constructs. Memoing facilitates deeper thinking about codes, the analysis of emerging ideas, and theory construction. Memoing allows the investigator to reflect on past personal experiences that influence data interpretation, thereby fostering a richer understanding of how codes and categories were developed during constant comparative analysis. Through the iterative process of constant comparative analysis of codes and categories, a rich theoretical framework will be rendered.

e) **Demographic questionnaire** will be collected from participants to facilitate a description of the sample characteristics as part of the process of this study (example form uploaded to eIRB for review and approval).

9) **Privacy, Confidentiality and Data Security**

a) Upon confirmation of the transcript quality and accuracy, the original audio files will be deleted after the completion of the study to prevent the retention of any potentially identifying "voiceprints."

b) There will be only one separate and distinct document created to link the specific participant to his or her pseudonym and participant number. This document will be kept in a secure drawer in a secure office.

c) All documents, electronic or otherwise, will kept in a locked drawer in a locked office for storage. Electronic documents will be kept encrypted for safety.

d) Supervision: This study will be completed as part of a doctoral dissertation in partial fulfillment of the requirements of the PhD degree program at Oregon Health & Science University School of Nursing. Participants will be informed of the nature of this proposed study as a dissertation and provided the contact information for the supervising Dissertation Committee Chair, Dr. Kristin Lutz (503-494-5010).

10) **Risks and Benefits**

a) Risks to Subjects

This is a minimal-risk study. The potential risks to study participants will be minimal and limited in scope to emotional responses related to the primary data collection method of engaging in semistructured interviews. Participants may find some questions uncomfortable, and there will be a potential to experience some negative emotions in response. Participants will be provided clear instruction that they need not answer such questions or continue to participate in the interview. Participants will be reminded that they have the right to withdraw from the study at any time. In the case of undue, severe distress, participants will be encouraged to access supportive resources (example handout uploaded to eIRB for review and approval). It is not anticipated that such occurrences will be frequent or severe given the relatively benign nature of the anticipated interviews. Additionally, participants will be clearly informed of the confidential nature and process by which their interviews will be maintained, including the protection of their identities. In this research, all transcripts and resulting publications will use pseudonyms in place of actual participants' names.

Participants will be informed that the investigator, a nurse, is considered a mandatory reporter by the Oregon state law Abuse Prevention and Reporting; Civil Action for Abuse ORS 124.050 to 124.095. (2015). As a mandatory reporter, the nurse is obligated to report suspected elder abuse to the Department of Health and Human Services. Additionally, the principle investigator will notify participants that any signs of animal abuse will be reported to the Humane Society.

b) Potential Benefits to Subjects

There will be no direct benefits to the participants of this study.

APPENDIX B: CONSENT FORM

IRB#: 16154

Research Consent Summary

You are being asked to join a research study. You do not have to join the study. Even if you decide to join now, you can change your mind later.

Some parts of this study are optional. You may participate in the main study without participating in the optional parts.

1. The purpose of this study is to learn more about how older adults with chronic conditions make decisions about their health when they also have a pet.
2. We want to learn about and describe how pets influence older adults' decision-making.
3. The National Hartford Centers of Gerontological Nursing Excellence, Oregon Health & Science University School of Nursing, and the Beta Psi chapter of Sigma Theta Tau International are paying for the research study.
4. If you join the study, you will complete a 60-90 minute interview and a brief questionnaire.
5. You may be asked to complete a second optional interview within a month.
6. There is a small risk of breach of confidentiality. There is a small risk of feeling upset by the interview questions.

OREGON HEALTH & SCIENCE UNIVERSITY

IRB#: 16154

Research Consent and Authorization Form

TITLE: The influence of pets on older adults' decision-making: A grounded theory study

PRINCIPAL INVESTIGATOR: Kristin Lutz, RN, PhD (503) 494-5010 (Dissertation Chair)

CO-INVESTIGATORS:

CO-INVESTIGATORS:
Sara Basilia Basin, RN, BS (503) 621-2148

Pat Berry, RN, PhD (503) 494-3855

Seiko Izumi, RN, PhD (503) 494-3828

FUNDED BY: National Hartford Centers of Gerontological Nursing Excellence, Oregon Health & Science University School of Nursing, and the Beta Psi chapter of Sigma Theta

PURPOSE:
You have been invited to be in this research study because you are an older adult with a chronic health condition caring for a pet. The purpose of this study is to learn more about how older adults with chronic conditions make decisions about their health when they also have a pet.

This study requires only 1 visit that will last 60-90 minutes.

Up to 50 subjects will participate in this study at OHSU.

PROCEDURES:

8. You will schedule a convenient time for the interview in a location of your choice of home or a private office.
9. You will complete a verbal semi-structured interview with the co-investigator. The interview will last about 60-90 minutes. The co-investigator will use an initial interview guide for prompts.
10. After the interview you will complete a brief personal information form. This form will ask about the your age, gender, education, income, types of conditions you have, your relationship with your pet and the care responsibilities for your pet.

If you have any questions, concerns, or complaints regarding this study now or in the future, or you think you may have been injured or harmed by the study, contact Sara Basilia Basin at 503-621-2148.

RISKS AND DISCOMFORTS:
Although we have made every effort to protect your identity, there is a minimal risk of loss of confidentiality. Some of these questions may seem very personal or embarrassing. They may upset you. You may refuse to answer any of the questions that you do not wish to answer. If you feel upset you can stop the interview at any time. If the questions make you very upset, we will help you to find a counselor. If you remain upset the co-investigator will provide suggested resources for additional care.

BENEFITS:
You will not personally benefit from being in this study. However, by serving as a subject, you may help us learn how to benefit patients in the future.

ALTERNATIVES:
You may choose not to be in this study.

CONFIDENTIALITY:
We will take steps to keep your personal information confidential, but we cannot guarantee total privacy. We will create and collect health information about you as described in the Purpose and Procedures sections of this form. Health information is private and is protected under federal law and Oregon law. By agreeing to be in this study, you are giving permission (also called authorization) for us to use and disclose your health information as described in this form.

The investigators, study staff, and others at OHSU may use the information we collect and create about you in order to conduct and oversee this research study.

We may release this information to others outside of OHSU who are involved in conducting or overseeing research, including:

- The Office for Human Research Protections, a federal agency that oversees research involving humans

Those listed above may also be permitted to review and copy your records.

We will not release information about you to others not listed above, unless required or permitted by law. We will not use your name or your identity for publication or publicity purposes, unless we have your special permission.

When we send information outside of OHSU, they may no longer be protected under federal or Oregon law. In this case, your information could be used and re-released without your permission.

We may continue to use and disclose your information as described above indefinitely.

During the study you will be digitally audio recorded. We will not use your name or your identity for publication purposes. Recorded interviews will be stored in a locked office. These interviews will be transcribed by a professional transcription service. After transcription and data analysis are complete, all digital recordings will be erased. All identifying information will be removed or altered on the written transcript. The written transcript will only be shared among the investigators. Transcripts will be identified with a code rather than the actual name or identity of any participant. A code key list will be kept in a locked drawer accessible only to the investigators, and will be destroyed when the study is completed. We may request your social security number in order to process any payments for participation.

Under Oregon law, suspected child or elder abuse must be reported to appropriate authorities.

COMMERCIAL DEVELOPMENT:
Information including audiotapes about you or obtained from you in this research may be used for commercial purposes, such as making a discovery that could, in the future, be patented or licensed to a company, which could result in a possible financial benefit to that company, OHSU, and its researchers. There are no plans to pay you if this happens. You will not have any property rights or ownership or financial interest in or arising from products or data that may result from your participation in this study. Further, you will have no responsibility or liability for any use that may be made of your information.

COSTS:
There will be no cost to you or your insurance company to participate in this study. You will receive a $20 gift card for participating in the interview. We may request your social security number in order to process any payments for participation.

LIABILITY:
If you believe you have been injured or harmed as a result of participating in this research and require treatment, contact Kristin Lutz, RN, PhD (503) 494-5010 or Sara Basilia Basin (503) 621-2148.

If you are injured or harmed by the study procedures, you will be treated. OHSU does not offer any financial compensation or payment for the cost of treatment if you are injured or harmed as a result of participating in this research. Therefore, any medical treatment you need may be billed to you or your insurance. However, you are not prevented from seeking to collect compensation for injury related to negligence on the part of those involved in the research. Oregon law (Oregon Tort Claims Act (ORS 30.260 through 30.300)) may limit the dollar amount that you may recover from OHSU or its caregivers and researchers for a claim relating to care or research at OHSU, and the time you have to bring a claim.

If you have questions on this subject, please call the OHSU Research Integrity Office at (503) 494-7887.

PARTICIPATION:
If you have any questions, concerns, or complaints regarding this study now or in the future, contact Kristin Lutz, RN, PhD (503) 494-5010 or Sara Basilia Basin (503) 621-2148.

This research is being overseen by an Institutional Review Board ("IRB"). You may talk to the IRB at (503) 494-7887 or irb@ohsu.edu if:

- Your questions, concerns, or complaints are not being answered by the research team.
- You want to talk to someone besides the research team.
- You have questions about your rights as a research subject.
- You want to get more information or provide input about this research.

You may also submit a report to the OHSU Integrity Hotline online at https://secure.ethicspoint.com/domain/media/en/gui/18915/index.html or by calling toll-free (877) 733-8313 (anonymous and available 24 hours a day, 7 days a week).

Your participation in this study is voluntary. You do not have to join this or any research study. You do not have to allow the use and disclosure of your health information in the study, but if you do not, you cannot be in the study. Some parts of the study are optional. You can choose not to participate in some or all of the optional parts but still participate in the rest of the study.

If you do join the study and later change your mind, you have the right to quit at any time. This includes the right to withdraw your authorization to use and disclose your health information. You can choose to withdraw from some or all of the optional parts of this study without withdrawing from the whole study. If you choose not to join any or all parts of this study, or if you withdraw early from any or all parts of the study, there will be no penalty or loss of benefits to which you are otherwise entitled, including being able to receive health care services or insurance coverage for services. Talk to the investigator if you want to withdraw from the study, or change which parts of the study you are participating in.

If you no longer want your health information to be used and disclosed as described in this form, you must send a written request or email stating that you are revoking your authorization to:

Kristin Lutz
3455 SW US Veterans Hospital Rd.
Portland, Ore. 97239-2941
lutz@ohsu.edu

Your request will be effective as of the date we receive it. However, health information collected before your request is received may continue to be used and disclosed to the extent that we have already acted based on your authorization.

If you choose to withdraw from the study you will not be interviewed or complete a demographic questionnaire.

If in the future you decide you no longer want to participate in this research, we will remove your name and any other identifiers from your information, but the material will not be destroyed and we will continue to use it for research.

You may be removed from the study if you are unable to engage in the interview.

We will give you any new information during the course of this research study that might change the way you feel about being in the study.

SIGNATURES:

PARTICIPANT OPTIONS

The optional portions of this study are described in detail throughout this consent form and listed here as a summary. Please read the options and place your initials next to one of the choices below. You can still participate in the main part of the study even if you choose not to participate in the optional parts.

_____ I give my consent to participate in the optional follow-up interview of the study.

_____ I do not give my consent to participate in the optional follow-up interview of the study.

Your signature below indicates that you have read this entire form and that you agree to be in this study.

We will give you a copy of this signed form.

Subject Printed Name	Subject Signature	Date

Person Obtaining Consent Printed Name	Person Obtaining Consent Signature	Date

APPENDIX C: DEMOGRAPHIC FORM

Study Title: The influence of pets on older adults' decision making: A grounded theory study

Demographic Form

Name: _____

Today's date: _____

Willing to be contacted for follow-up interview? Y/N

Pet's name and type: _____

Length of relationship with pet(s) _____

What care needs do you do for your pet?

- ☐ Feed and water
- ☐ Walk
- ☐ Play
- ☐ Clean up after pet
- ☐ Other:_____

Please answer the following questions about yourself:

Age: at last birthday_____

Ethnicity:

- ☐ Hispanic or Latino
- ☐ Not Hispanic or Latino
- ☐ Prefer not to answer about ethnicity

Race: (Please check all that apply)

- ☐ American Indian or Alaska Native
- ☐ Asian
- ☐ Black or African American
- ☐ Native Hawaiian or Other Pacific Islander
- ☐ Other _____
- ☐ Prefer not to answer about race

What is your highest level of education completed? _____

What is your current relationship status? _____

What is your current employment status? _____

Do you currently have health insurance? _____

List the chronic health conditions you are managing:

What is your estimated annual household income? _____

☐ Prefer not to answer about income

END OF SURVEY

Thank you for your time! If you have any comments, clarifications, or additional comments, kindly write them in this space provided:

APPENDIX D: INTERVIEW GUIDE

Interview:

To start, I would like you tell me about when you first got your pet.

Probe:

- If participants have multiple animals—Tell me about any of your pets.

Tell me about your relationship, like with (pet's name).

What does this relationship mean to you?

Please tell me what it has been like managing your chronic disease while caring for (pet's name).

How do you make decisions about how to take care of yourself?
When you make these decisions, how does having _ (pet's name)_ affect your decisions?
Can you give me an example of a decision you had to make when you were concerned about (pet's name)?

Probe:

- Do you have concerns about (pet's name) when you decide to go to hospital? Tell me more.

Tell me about a time you had to make a decision to do something or not do something because of your pet?

Probes:

- Tell me more about it.
- How did you come to that decision?
- What other factors came into play in making that decision?

Tell me about a time when you had to go to the hospital and leave your pet at home. What was that like for you? (If participant answers no, move on to next question)

Probes:

- Tell me more about that.
- Please give some more details.
- How did this feel?
- How did you keep tabs on how (pet's name) was doing?

Sometimes it is hard to recall situations that you might have included (pet's name) as a factor in your decisions. I have a few hypothetical situations that I would like to ask you about.

- If you had to go to the hospital unexpectedly, what would you do with (pet's name)? Who would take care of him/her? Can you tell me what led to that decision?

How do you imagine the future for you and (pet's name)?

What else do you want to tell me about you and (pet's name)?

Do you have any family or friends who you might think would be interested in participating in this study? If so, here is some information can give them to contact me.

Thank you so much for your time today. If you are willing to be contacted in a follow-up interview, please be sure that you have checked the box on the demographic form. You may change your mind at any time if you decide you do not want to participate in a follow-up interview. Here is a gift card as a token of my appreciation. Thank you again for sharing your experiences. It was a pleasure meeting you and (pet's name).

APPENDIX E: SUPPORTIVE RESOURCES

Study Title: The influence of pets on older adults' decision-making: A grounded theory study

IRB# 16154

Supportive Resources for Emotional Distress

It is possible that by participating in these research interviews, you may experience a question or conversation that creates emotional distress for you. In some cases, this emotional distress could be troubling enough that you may find a need for additional help. If so, you may find these free resources to be helpful:

Oregon Warmline (**Non-crisis**, limited daily hours support): 800-698-2392

Multnomah County Mental Health: (503) 988-4888 available 24/7

Washington County Mental Health: (503) 291-9111 available 24/7

Clackamas County Mental Health: (503) 655-8585 available 24/7

Clark County (SW Washington) Mental Health: (360) 696-9560 available 24/7

Pet Related Resources

Pongo pet food bank provides free pet food for those in need (503) 939-7555

Portland Animal welfare team provides free veterinary care for the pets of people who are homeless or living in acute poverty (971) 333-0729

Dove Lewis Emergency veterinary clinic provides 24/hour emergency veterinary care, has a financial assistance fund for those in need. Also provides pet loss support groups. (503) 228-7181

Oregon Humane Society provides various educational resources and pet services (503) 285-7722

APPENDIX F: RECRUITMENT FLYER

IRB # 16154

IRB Approved: 4/11/2017

Do you have a pet?
Are you 60 years old or older?
Do you have diabetes, high blood pressure or another health condition?



If so, you may be eligible to participate.
We are conducting a study to learn about what it is like living with a pet and taking care of your health.

This study will help us learn more about:

- What your relationship with your pet is like
- How pets influence your decisions
- What it is like living with a pet and taking care of your health

The interviews are private and confidential. The interview can take place in your home or another private place of your choosing. You will receive a $20 gift card for participating. To learn if you are eligible to participate please use the contact information listed below.

Older Adults & Pets Study (503) 621-2148 basin@ohsu.edu	Older Adults & Pets Study (503) 621-2148 basin@ohsu.edu	Older Adults & Pets Study (503) 621-2148 basin@ohsu.edu	Older Adults & Pets Study (503) 621-2148 basin@ohsu.edu	Older Adults & Pets Study (503) 621-2148 basin@ohsu.edu	Older Adults & Pets Study (503) 621-2148 basin@ohsu.edu

APPENDIX G: TELEPHONE RECRUITMENT AND SCREENING SCRIPT

Study Title: The influence of pets on older adult's decision-making: A grounded theory study

Telephone Recruitment and Screening Script Template

Hello, my name is Basilia. I'm calling from Oregon Health & Science University about a research study. Am I speaking to _____ (name of recruit)?

If "no," wait for recruit to pick up, arrange to leave a message, or ask for a time to call back.

If "yes":

Thank you for contacting me about the study. Is this a good time to talk? I expect this phone call will take about 5-10 minutes.

Arrange to call at another time, if appropriate.

I'm calling about a research study about the relationship older adults have with their pets called The influence of pets on older adults' decision-making: A grounded theory study. The purpose of this research study is to learn more about how older adults with chronic conditions make decisions when they also have a pet.

I'm calling to see if you are interested in the study and if you might be eligible to participate. If you agree, I will ask you some questions to see if you can be in the study. If it looks like you might be eligible, we will set up an appointment to meet at a private place of your choosing such as your home or an office space here at OHSU. In that appointment, I will explain all of the details of the study in full and also your rights and protections as a participant.

Before we go on to the questions, let me tell you a little bit about your rights as a research subject.

The main risk of answering my questions today is loss of confidentiality. However, we will do our best to keep your information confidential by keeping it coded and on password-protected computer. If you are not eligible for the study any information collect during this phone call will be destroyed.

You don't have to answer these questions, and you can choose to stop at any time without penalty. If you have questions about the study, you can call us at (503) 621-2148. If you have questions about your rights as a research subject or research-related injuries, you can call the OHSU Research Integrity Office at 503-494-7887.

May I go ahead with the eligibility questions?

If no, thank the individual and end the call.

If yes:

I'm going to give a list of things that would PROHIBIT you from being in the study. Please do not indicate if these things apply to you until the end of the list. When I'm finished with the list, feel free to ask questions or tell me if you do NOT have any of the following or if NONE of the following apply to you:

1) You are under the age of 60 years
2) You do not have a pet
3) You do not speak and write fluently in the English language
4) You do not have any chronic conditions/chronic diseases

5) You have a cognitive disorder, or difficulties that would limit your ability to consent and engage in an interview

If any of those things are true for you, you cannot participate in the study. Does it look like you might still be eligible?
If yes: Document eligibility response and make appointment, if appropriate.
If no:
Thank you for your time.