ABSTRACT

BURROWING DEEPER: WHAT RABBIT-ASSISTED ACTIVITIES MEAN TO OLDER ADULTS

by Natalie N.L. Pitcheckoff

Using animal-assisted activities as a recreational program for older adults has long been practiced. Despite its utilization, there is limited research on this topic and no research has exclusively focused on rabbits. The purpose of this study, therefore, was to explore the meaning and experience of engaging in rabbit-assisted activities for older adults. A descriptive qualitative study was conducted involving direct observation, field notes and in-depth interviews. Thematic coding was used to analyze the data. Overall, participants’ perceptual experience with rabbit-assisted activities seems to be positive and beneficial. No negative aspects to program participation were uncovered but instead some remarked on how the program was limited in its ability to provide meaning. This study suggests that older adults living in residential facilities may benefit from infrequent or brief interactions with rabbits. However, additional research is needed on visiting animal activity programs.
BURROWING DEEPER: WHAT RABBIT-ASSISTED ACTIVITIES MEAN TO OLDER ADULTS

A Thesis

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I would like to express my deep gratitude to all those that have helped make this thesis a reality.
Background

The human-animal bond has existed for centuries dating back to antiquity (Urichuk & Anderson, 2003). However, it was not until the 19th century that animals began to be used in clinical settings. At the York Retreat in England, for instance, animals were frequently used to treat individuals with mental health problems to "reduce the use of harsh drugs and restraints" (Urichuk & Anderson, 2003, p.19). Over the years, the human-animal bond has been explored as a source of therapy or activity in a wide variety of settings and with a diverse set of individuals, ranging from children to older adults (Altschuillar, 2011; Berry, Borgi, Terranova, Chiarotti, Alleva, & Cirulli, 2012; Cusack, 1988; Cusack & Smith, 1984; Doyle, 2012; International Federation on Ageing, n.d.; Kumasaka, Masu, Kataoka & Numao, 2012; Nimer & Lundahl, 2007; Prosser, Townsend & Staiger, 2008; The State Hospital, 2007; Thomas, 2004). As this practice has developed so too has the interest in researching this topic.

In residential facilities, two general categories of human-animal interactions have emerged. The first type is referred to as animal-assisted therapy (AAT) and the second is known as animal-assisted activities (AAA; Nimer & Lundahl, 2007; Funahashi, Gruebler, Aoki, Kadone & Suzuki 2013). AAT technically refers to programs with stated therapy goals that are individualized (Nimer & Lundahl, 2007). In most cases of AAT, a health care professional uses the animal to mediate the therapy. In other words, a professional guides an animal and the patient to realize some predefined outcome believed to be difficult to achieve without exposure to the animal (Nimer & Lundahl, 2007). AAA, on the other hand, are informal programs wherein animals visit with a population with no stated therapeutic goal per se (Funahashi et al., 2013). They are casual “meet and greet” activities that involve animals visiting people which “provide opportunities for motivational, educational, and recreational…benefits to improve quality of life” (Pet Partners, n.d.). Although the goals of AAA and AAT differ, they are closely related practices with the terms often used interchangeably. For this reason and the fact that there is limited data on this topic, I examined a broad range of literature.

A number of benefits of interacting with animals have been identified in the existing body of research on human-animal interactions. These include physiological, social and psychological benefits (Allen, 2003; Berry et al., 2012; Connell, Janevic, Solway & McLaughlin 2007; Doyle, 2012; Dookie, 2013; International Federation on Ageing, n.d; Kogan, 2000; Menna, Fontanella, Santaniello, Ammendola, Travaglino, Mugnai; Di Maggio & Fioretti, 2012; Urichuk & Anderson,
The physiological benefits of interacting with animals have been documented in many studies over the years (Allen, 2003; Allen, Blascovich, Tomaka & Kelsey, 1991; Allen, Blascovich & Mendes, 2002; Brody & Biley, 1999; Pachana, Ford, Andrew, Dobson, 2005; Siegel, 1990). Pets have been found to be associated with improved cardiovascular health, as they lower blood pressure, lipid levels and decrease heart rates (Allen, 2003; Friedman & Thomas, 1995; Headey, 1999; Levine, Allen, Braun, Christian, Friedmann, Toubert, Thomas, Wells & Lange, 2013). They are also associated with health care utilization. In a study that examined the physiological benefits of pets among Medicare enrollees in California, Siegel (1990) reported that participants who owned pets had less contact with doctors and lower health care utilization than those without pets. She argued that the social support that animals provide can buffer the effects of stress, which in turn, lowers blood pressure. Headey (1999) similarly found that pet owners visit doctors less frequently and use fewer heart medications and sleep aids than non-owners.

In addition to the physiological benefits, psychological benefits have been identified. In a study that examined pet ownership among families affected by dementia, Connell et al. (2007) reported that pet companionship reduced loneliness. This was thought to be advantageous for older adults whose social networks may be shrinking due to life events such as death. Using qualitative methods, Dookie (2013) examined the benefits of AAA on empowerment and self-esteem in a sample of older adults residing in retirement communities. The residents participating in the study were recruited because they owned a variety of pets. She found that caring for a pet can help older adults feel in a position of control and responsibility. Other reported benefits included enhanced positive self-perceptions and increased self-esteem (Dookie, 2013). Dookie argued that because the animal is reliant on the older adult for care, the feeling of being needed helps mitigate the loss of autonomy and independence as one grows older. This, along with the bond formed to the animal, increases self-esteem, positive emotions and empowerment (Dookie, 2013).

Existing research also suggests that pets can decrease symptoms of depression and anxiety (Berry et al., 2012; Connell et al., 2007; Hoffmann, Lee, Wertenauer, Ricken, Jansen, Gallinat & Lang, 2009; Kogan, 2000; Siegel, 1990; Souter & Miller, 2007). In the early 1980’s, Cusack found that interactions with animals, including rabbits, decreased fights, agitation, suicide attempts and drug usage among residents of a mental health facility. In a subsequent study with institutionalized children, interactions with rabbits were shown to significantly decrease aggression and agitation.
when compared to a control group and a group that received an alternate intervention (Cusack, 1988).

Contact with animals as an avenue for increasing communication, social stimulation and interaction among older adults has also been investigated in residential facilities (Berry et al., 2012; Bernstein, Friedmann, & Malaspina, 2000; Dookie, 2013; Doyle, 2012; Fink, 1993; Kogan, 2000; Prosser, Townsend, & Staiger, 2008). In the study by Dookie (2013), she examined how older adults in a residential facility exhibited increased communication with formal caregivers due to their pet ownership. Participants of her study reported having difficulty communicating to formal caregivers, but remarked that their pets served as a common topic for initiating and sustaining conversation. She suggested that interacting with a pet can help foster relationships with other people, create conversations and reduce communication barriers. Kogan (2000) reported analogous findings when examining long-term care residents with dementia. In particular, Kogan (2000) reported that animals acted as “facilitators” for conversations between the resident and their loved ones when they came to visit the facility. It is also interesting to note that many of the residents’ friends and family believed that the pet was a good topic for initiating communication and provided sensory stimulation for their loved ones (Kogan, 2000).

Berry et al. (2012) compared residents’ levels of social interaction when engaged in one session of AAA versus those engaged in AAT with the predefined goal of “motor rehabilitation” (p.144). He found that residents engaged in AAA had greater levels of social interaction and decreased cortisol levels when compared with residents participating in AAT. Likewise, Bernstein, Friedmann and Malaspina (2000) examined the usefulness of AAT in promoting social interactions when compared to a non-animal activity such as bingo or arts and crafts. They found that both types of activities stimulated social interactions, but that AAT promoted longer conversations among residents than did non-animal activities. Similarly, Doyle (2012) found that interacting with and caring for residential hens increased socialization and communication among the residents that cared for and interacted with the hens. Lastly, Fink (1993) investigated the effect of AAT on social interaction. She found that “verbal interactions with another person,” meaning communication among individuals, and “nonverbal interactions with another person,” that is body language, were observed twice as frequently when the animal was present (Fink, 1993). Together, these studies suggest that having interactions with animals later in life may have beneficial effects on older adults.
Many of the same social and psychological benefits for older adults have been documented for individuals with cognitive impairments. Studies have suggested that animals are a good form of supplemental therapy for people with dementia or Alzheimer’s disease. According to a study conducted by Connell et al. (2007) animals seem to bring out the best in older adults with dementia and may promote a sense of calm marked by decreased agitation and aggression. Pets may also provide companionship, increased focus, diversion and a close affectionate relationship (Connell et al., 2007). In a review of nine studies focused on interactions with animals and older adults with dementia, Perkins, Bartlett, Travers and Rand (2008) similarly found that contact with animals was beneficial with “the most frequently reported findings [being] an increase in social behavior” and decreased agitation (Perkins, Bartlett, Travers & Rand, 2008, p.177).

A frequently utilized theoretical perspective in the human-animal interaction literature is social support theory. Social support is defined as “information leading [a person] to believe [that he or she is] cared for and loved, is esteemed and valued and belongs to a social network of communication and mutual obligation” (Cobb, 1976, p.301). Social support is categorized into four broad types: emotional, instrumental, informational and appraisal support (House, 1981). Emotional support, according to House (1981), includes “providing empathy, care, love and trust” while instrumental support involves tangible aid and services that directly assist an individual in need (p.23). Informational support refers to providing advice, suggestions or information to an individual. Lastly, appraisal support includes information that promotes “self-evaluation” (House, 1981, p.23).

It is widely documented that social support is a key psychosocial determinant of health (Berkman, Glass, Brissette & Seeman, 2000; Cohen 1988; House, Landis & Umberson, 1988; Uchino 2004; Uchino, 2009; Horsten, Ericson, Perski, Wamala, Schenck-Gustafsson & Orth-Gomer 1999; Wang, Mittleman & Orth-Gomer, 2005). Although most of the research literature on social support deals with human interactions, studies have demonstrated that animals can be important sources of social support as well (McConnell, Brown, Shoda, Stayton, & Martin 2013; Arkow, 2013). Existing research suggests that companionship animals defined as “domesticated or domestic-bred animals whose physical, emotional, behavioral and social needs can be readily met as companions in the home, or in close daily relationship with humans” are indistinguishable from family members when it comes to providing closeness and intimacy, buffering the effects of stress and increasing beneficial health outcomes and overall well-being (ASPCA 2014; Arkow,
One quantitative study conducted by McConnell et al. (2013) found that pet owners had higher amounts of physical activity, greater self-esteem and tended to report lower levels of loneliness than non-pet owners. He also found that pet owners reported a similar degree of perceived support from their pets and family such as siblings or parents. Only close friends were rated as providing greater social support than their pets in this investigation (McConnell et al., 2013). Furthermore, seeking support in a companionship animal might be easier since the relationship is generally close and feelings of embarrassment or shame are reduced (McConnell et al., 2013).

The biophilia hypothesis is also often used in conjunction with social support theory when examining the benefits of the human-animal interaction. The biophilia hypothesis was proposed by a biologist, Edward O. Wilson, in 1984. He posited that humans have an “innate tendency to focus on life and lifelike processes” (Wilson, 1984, p.1). He further contends that the human connection to nature, which includes both plants and animals, is based on an evolutionary imperative. More specifically, Wilson and his colleague suggest that as humans evolved with animals a deep relationship was born due to our need for animals to serve as a food source and “as a basis for survival and personal fulfillment” (Kellert & Wilson, 1993, p.44). They further contend that we have developed a particular affinity for calm animals, such as rabbits, because calm animals were perceived as less threatening to our survival than more aggressive animals such as bears or lions. Our natural affinity for animals, as outlined by the biophilia hypothesis, provides a rationale for the use of animals in therapeutic settings (Melson & Fine, 2006). The biophilia hypothesis may also explain why humans today seek to maintain contact with animals and nature by creating and visiting parks, zoos and aquariums in cities all across America (Gullone, 2000). In the United States, “more children and adults visit zoos than attend [all] major sporting events combined” (Kellert & Wilson, 1993, p.32). In larger numbers, individuals bring animals into the home. According to recent estimates, 55 million Americans have pet dogs, 40 million have pet cats, and 6 to 9 million have pet rabbits (Gullone, 2000; House Rabbit Society, 2014). These numbers seem to suggest that humans receive a sense of enjoyment from owning and making contact with animals. For these reasons, elements of the natural environment continue to be used in increasing numbers in a variety of settings such as nursing homes that traditionally lack a touch of nature.
Animal-assisted activities (AAA) have been practiced and continue to be used in increasing numbers as a form of innovative programing for older adults. Seven major teaching hospitals in the Boston area, for example, have pet visitation teams or animal therapy programs (Palley, O’Rourke & Niemi, 2010). Although AAA are commonly utilized in residential settings, very little research has examined how they are conducted or whether residents enjoy and benefit from this type of activity (Nimer & Lundahl, 2007). In fact, the majority of existing studies focus on pets rather than animals that visit residents in facilities. While these studies reveal a number of positive effects of pet ownership, our knowledge of the benefits of infrequent and shorter visits with animals through programs such as AAA is limited. This study will contribute to the existing body of literature by enhancing our understanding of the meaning and experience of participating in rabbit-assisted activities (RAA) from the perspective of older adults currently residing in a residential facility. Specifically, this investigation is designed to address three research questions:

1. What emotional reactions and personal stories emerge from the residents engaged in rabbit-assisted activities?

2. What benefits do residents perceive from their involvement in rabbit-assisted activities?

3. Do the residents perceive there to be any negative aspects to program participation?
Methods

This descriptive qualitative study involved direct observation, field notes and in-depth interviews. The full study was conducted over an eight-month period between September 2014 and May 2015 and consisted of three general phases. The first phase took four months and included a period of preliminary work that involved the development of an interview guide (see Appendix A for the full interview guide), securing approval for the study from Miami University’s Institutional Review Board, and gaining entry into the facility where this investigation took place. Due to my established relationship with the facilitator of the rabbit activity program, entry into the facility was a relatively efficient and easy process. Once permission to enter the facility was obtained, the second phase ensued. The second phase, which spanned one month, involved active data collection. The third and final phase lasted three months and consisted of data analysis, report writing and dissemination.

Setting and Sampling

This study was conducted in a single continuing care retirement community for older adults in a Midwestern city. The continuing care retirement community is a private non-profit, faith-based facility. The facility is quite large with a census of approximately 300 individuals who are divided among the facility’s various levels of care.

Through the aid of a “gate keeper” who leads the program, purposeful sampling was used to select residents actively engaged in rabbit-assisted activities (RAA). Since RAA were conducted in just two levels of care, the nursing home and dementia unit, sampling was limited to older adults residing in those units. The inclusion and exclusion criteria for participation in the study were two-fold. During the initial phase of direct observation, all residents who engaged in the programming were included. In the interview phase, only those residents who were able to effectively communicate their experiences and perceptions were included. This excluded those with cognitive impairment, which was ascertained via discussions with the facility’s lead social worker. Written consent to be involved in the study was obtained from all participants. As part of the consent process, residents were informed that they had the right to withdraw from the study at any time and that any information that they provided would be kept confidential. The central purpose of the study and the procedures used for data collection were disclosed to all interested participants.
Data Collection

In the facility in which this study was conducted, RAA are performed informally. That is, the activity takes place with congregated groups of residents in hallways and other common areas and in the rooms of individual residents. The number of residents participating in the congregated groups and who were visited individually varied from day to day, but typically ranged from 11 to 30 individuals.

On two occasions approximately three weeks apart, I gathered field notes and directly observed residents involved in RAA. I also conducted eight face-to-face, in-depth interviews with residents who participated in the activity sessions that I observed. Interviews were conducted either on the same day of the activity or the following day, depending on the availability of the resident.

Direct observation and field notes. During activity sessions, I observed participants and recorded field notes. Approximately 30 participants were observed during the two activity sessions, which lasted for about one hour. Specifically, I observed and noted participants’ reactions to the rabbits, conversations that occurred during the activity, facial expressions of the participants and the relationship between the participant, rabbits and the facilitator of the activity. Most of the observations I recorded occurred when the participant was approached with the rabbits either in the common areas or their individual rooms. The field notes also included a description of the participants, the physical setting, particular events and activities, and my own reactions. No residents were excluded from direct observation.

In-depth interviews. Resident interviews were semi-structured involving open-ended questions that allowed the residents to fully express their thoughts and feelings without constraint. Prior to the interviews, I developed an interview guide to help conduct the conversation (see Appendix A for the full interview guide). All interviews were audio taped and transcribed, allowing codes and themes to be developed from the verbatim language of the residents. Interviews with participants were carried out at the residential care facility. Although interview length varied, interviews were typically completed within 45 minutes.

In addition to the resident interviews, I conducted a face-to-face, in-depth interview with the facilitator of the rabbit-assisted activity program. The goal of this interview, which was conducted at a local restaurant after all resident interviews were complete, was to gain an understanding of the logistics of the program. Since little is known about RAA, I felt it necessary to detail, for instance, how the rabbit team and rabbits are trained.
Data Analysis

Following data collection, I transcribed all of the participants’ interviews. Once transcription was complete, I reviewed the transcripts several times to gain an overall feel for the data. This allowed me to identify key words, ideas, and patterns in the data. As explained in Creswell (2007), I then highlighted significant statements or quotes that shed insight into the residents’ experiences with RAA in a process known as thematic coding. Due to the iterative process of qualitative data analysis, the codes that I developed were refined as I continued to review the transcripts. These codes were then structured in a systematic list known as a codebook, which defines the code and indicates when and where it should be applied in the text (see Appendix C for the full codebook). Once codes were established, I began developing clusters of meaning that formed the themes of my data. The themes were then integrated into an in-depth description of RAA. Alternate codes were developed for the purpose of coding and analyzing the activity facilitator’s interview. As described above, those codes were then clustered to identify logistical themes or domains of the structure and process of RAA.

During and after data collection and analysis, I used two approaches to establish trustworthiness in the data. The first way trustworthiness of the data was established was through verifying responses with participants. In this study, I verified responses with all participants throughout the one-on-one interviews to ensure I was accurately capturing what the participant said. For example, I would often paraphrase what a participant said to make sure that what I was capturing was correct. This also allowed me to clarify details with participants and understand their intended meaning.

The second way trustworthiness was established was by using methodological triangulation. The advantage of using triangulation is that it enhances confidence in the study’s findings. The technique of methodological triangulation refers to using more than one method for gathering data (Bryman, 2004). For this study, the data obtained via direct observation was contrasted with that obtained from the in-depth interviews to determine if the findings converged or diverged (Bryman, 2004). If, for example, I observed participants talking to the rabbits during direct observation, I could contrast this finding with what participants reported during the interview to see if the findings converged or diverged. As is common in all research, my study’s results were then compared with findings in the relevant literature on this topic. This allowed for my findings to be contextualized within the existing literature.
**Role of the Researcher**

My personal understanding and experiences with this phenomenon as a former implementer of RAA provided the motivation behind this research. Due to my past and current experience with rabbits as an owner, enthusiast and advocate, I needed to bracket my own experiences as much as possible during the course of this study. In qualitative research, the term bracketing does not have a uniform definition but one definition proposed by Starks and Trinidad (2007) notes that the researcher:

> Must be honest and vigilant about [their] own perspective, pre-existing thoughts and beliefs [and]...engage in the self-reflective process of ‘bracketing’, whereby they recognize and set aside (but do not abandon) their a priori knowledge and assumptions, with the analytic goal of attending to the participants’ accounts with an open mind (p.1376).

To bracket my prior experiences, I wrote memos throughout data collection and analysis in order to examine and reflect on my engagement with the data (Tufford & Newman, 2010). During data collection, I avoided direct contact with the rabbits. I also never told anyone in the facility that I had a history with rabbits or currently own rabbits. I have been aware of my preconceptions from the beginning of this investigation. I have continued to be mindful of those preconceptions in an effort to obtain an unbiased account of the meaning and experience that the residents derive from RAA.
Results

The rabbit-assisted activity program is informal in nature, and takes place in common areas, hallways and rooms of individual residents. The activity is conducted by a rabbit team, which is led by the activity facilitator and one to two volunteers. The team generally utilizes three rabbits, which are all placed and presented in a basket. For additional information on the structure and process of rabbit-assisted activities (RAA), please refer to Appendix B.

Direct Observation

During the first phase of data collection, I directly observed participants engaged in RAA. I noted their facial expressions and recorded verbatim quotes from the residents. None of the observed participants exhibited any negative reactions to the rabbits either in the form of facial expressions or statements. Participants generally had three reactions to the rabbits: not interested, mildly interested and very interested.

Not interested includes residents who expressed no interest in petting the rabbits and would say things like “later.” Those who seemed to have no interest in the rabbit were not observed to have significant changes in facial expression. One African American man, for instance, asked if the rabbit team had music. When he was informed that they had rabbits and not music, he appeared uninterested with a neutral facial expression. Mildly interested encompasses those residents who would pet the rabbits for a few seconds, but were not overly enthusiastic. Another African American man said “yeah a bunny” and then proceeded to pet the rabbit for a couple seconds. Similarly, a female resident smiled and petted the rabbit for a brief time and said “look at their nose.” Some of the residents that were mildly interested exhibited expressions of surprise and curiosity. For instance, one African American woman clearly expressed a sense of surprise by widening her eyes in a questioning manner. Very interested captures those who appeared very enthusiastic when the rabbits were present and would pet the rabbits for at least a couple minutes. Those who were very interested would often smile when interacting with the rabbits. In the case of one woman, there was a very clear positive emotional reaction. Her face seemed to light up when she was approached with the rabbits. She smiled and laughed while petting the rabbits vigorously. Her facial expression appeared to change from plain and placid to exuberant. She was not observed to talk to the people around her but said “hi” and “I love you” to the rabbits. In fact, all of the participants who petted the rabbits were observed to talk to the rabbits, the rabbit team, visiting family members and/or staff with regards to the rabbit-assisted activity program.
I observed that most participants would adopt a high-pitched tone that is usually associated with “baby talk” when talking directly to the rabbits. When the participants would pet the rabbits, they would often greet them, smile and gaze upon them. Some verbatim quotes I recorded during the observational phase include: “you're a good bun-bun,” “what’s her name?” “I love bunnies,” “I like to pet them,” “yeah you’re a little sweetheart,” “I like your ears, they are so nice and soft,” and “oh, they are so calm.” One participant was particularly noteworthy because the rabbits seemed to stimulate an interaction between her and her granddaughter who was visiting at the time. The granddaughter saw the rabbits and then asked her grandmother if she would like to pet the rabbits. The participant said “yes,” petted the rabbits, and then continued to have a conversation with her granddaughter.

Several times during RAA, participants were also observed to spontaneously remark on past experiences with rabbits: “I had a rabbit once in my house, that’s why I know about them.” “I used to have a bunny when I was young.” “My granddaughter had a white bunny, entered in 4H.” I also observed how one woman reminisced with a staff member after participating in the rabbit-assisted activity program. Yet another participant was reminded of her sister when she saw the rabbits. She commented that her sister “loves bunnies” and that she “wishes she was here.” This seems to suggest that the rabbit-assisted activity program evoked memories for some of the residents who participated in the program.

**In-depth Interviews**

As mentioned previously, all interviews were conducted in the continuing care retirement community in either the individual’s room or in a common area. Most of the interviews took place in “the cove” which was a cozy seating area located at the end of the unit’s main hallway. Demographic characteristics of the eight interviewed participants are summarized in Table 1. The average age of the participants was 85 years old, with a range of 71 to 95 years old. With the exception of one individual, all participants were female. Six of the participants were identified as white and two were black/African American. Two had never been married, five were widowed and one was married. Half the participants had greater than a high school education.
<table>
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<th>Characteristic</th>
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The primary objective of this thesis was to enhance our understanding of the meaning and experience of RAA from the perspective of older adults, including any potential benefits and negative aspects of participation. Four themes that address this objective emerged from the data. These include: a) soothing, b) catalyst for communication and socialization, c) source of social support and d) restricted opportunities for making meaning. Two other findings, potential for reminiscence and good activity animal, also emerged from the data but are not classified as themes because responses were prompted by the interview questions.

**Soothing.** Three participants reported that the presence of the rabbits and/or the act of petting them was relaxing or calming. Ms. A, a woman in her early 70’s who described herself as being disabled, stated how petting their fur was relaxing, preventing her from repeatedly scratching scabs on her body. Ms. A stated, “It calms me down…I feel confident and nice…I get to pet them. Like I said, probably this morning I would be scratching those over, so I rub their fur and it relaxes my mind.” Mr. B, a male participant in his early 70’s who was a former educator, felt calm and comforted when interacting with the rabbits. Mr. B said, “Calm...satisfied...comforting.” Ms. F, a widowed Italian American in her late 80’s who had prior interactions with rabbits, also felt that their presence was calming. Ms. F said, “Relaxing...oh they are so calming.” These residents’ comments suggest that one benefit of RAA is that interacting with rabbits may promote relaxation and decrease feelings of distress.

**Catalyst for communication and socialization.** Catalyst for communication and socialization refers to when participants stated that they talked to one or more of the following: the rabbits, the rabbit team, facility staff, friends, family members, and other residents regarding RAA. All of the participants described the program as providing an opportunity to communicate with either the rabbits or other individuals. Nearly all participants described how they liked talking directly to the rabbits. Ms. D, a 90-year-old woman that had a long history of owning pets, remarked: “So I pet ‘em, talk to ‘em and ah they seem to get along fine, we do [laughs].” Ms. H, a married participant in her late 80’s who grew up on a farm, described how she complimented the rabbit’s physical appearance. Ms. H said, “When they’re here and I’m petting them, I talk to them all the time. [I] tell ‘em how pretty they are and everything you know. I don’t know if they understand it or not but...” Ms. F expressed how she would not only talk to the rabbits directly but would also make remarks about the rabbits to those around her. Ms. F said, “A little bunny,” “how cute,” “how cuddly you are.” Ms. A would address the rabbits like humans by saying, “I ask them...
‘good morning Mr. Rabbit and Mrs. Rabbit.’ ‘Good morning Cricket um where’s your carrot?’”

Ms. C, a widowed women in her mid-80’s who had prior relationships with pets, described how she would speak to the rabbits. Ms. C said, “Sweetie I like your eyes and nose,” “you’re sweet.”

Other participants mentioned that RAA provides a chance to socialize with other residents and the rabbit team. Ms. E, a 90-year-old African American woman who had never owned pets, commented on how she would socialize with her resident friends during the activity. Ms. E said: “Well…we sit…in the lobby together, some of the friends you know…when they bring the bunny in and bring it over to us we’ll play with it. Oh yeah.” Ms. D expressed how she would socialize with the rabbit team by inquiring about what the rabbits do. She stated, “The [rabbit team] might [talk] to me about what they do or what they are interested in and that’s the conversation that I have.” Some of these quotes highlight how talking to the rabbits directly can provide an outlet for expression and communication for many of the participants while other quotes illustrate how the activity serves as a facilitator for communication and socialization with other individuals. For one participant this included asking questions and having a dialog with the rabbit team. Together these quotes suggest that RAA serves as a potentially important catalyst for communication and socialization among the residents that participate.

**Source of social support.** Two participants described receiving emotional support from the rabbits themselves. In particular, one participant discussed receiving emotional support after the loss of a family member and another reported that she felt that she could connect to the rabbits. Ms. A was especially noteworthy because throughout the interview she poignantly stated how the rabbits helped her cope with the death of her mother. Ms. A said, “Right after my mom died I needed something. So I used the rabbit to heal me and it did. I held the rabbit and we prayed and we talked and talked and I talked to the rabbit.” Ms. A, having been handicapped all her life, remarked during the interview that she heavily relied on her mother as a source of social support. When she lost her mother’s support she used the rabbits to mitigate her pain and sense of loss. Her experience suggests that even brief interactions with rabbits can serve as a source of emotional support for some older adults.

Ms. D, on the other hand, expressed how she felt she could make friends with the rabbits. Ms. D stated: “You can make ah acquaintances with ‘em you know, make friends.” In the interview, she expressed that she felt she could bond and communicate with the rabbits because the rabbit appeared to be interested in her. It may be, therefore, that the ability of a live animal to
respond to an older adult creates a sense of being emotionally supported. Both of these quotes underscore how RAA are a potential means of enhancing social support among older adults that live in residential facilities.

**Restricted opportunities for making meaning.** Six participants identified wanting something more from the rabbit-assisted activity program itself. The majority of the participants remarked that they wished their visits with the rabbits were more frequent or longer. Additionally, some participants sought a greater interactive experience that might include, for example, feeding the rabbits. Mr. B felt that the rabbit team only came to his floor for a brief time and, therefore, he wished he could have a longer interaction time with the rabbits. Mr. B said, “If we could just hold on to them a little longer.” Ms. F made a similar statement by saying that she wished the rabbit activity was conducted more frequently. Ms. F said: “All I can say is that I wish they came over [every] other day.” Other participants such as Ms. A and Ms. G commented that they desired a more interactive experience with the rabbits. Ms. A expressed this by remarking on how she would like to feed them: “Go buy them little tiny carrots…and keep ‘em in a cellophane bag and give us [a carrot] and let us give them [to the rabbits].” This sentiment is further echoed by Ms. G, a mid-90-year-old African American woman who stated, “They just come around showing us the bunnies but that’s all. That’s the only interaction we had with the bunnies. Not to feed ‘em, take care of ‘em or anything like that. We just happy to see ‘em.”

Another aspect of restricted opportunities for making meaning that became evident was the limited capability of rabbits. Half of the participants commented that rabbits were somewhat limited in their ability to provide meaningful interactions. Ms. C, for instance, described how her relationship with the rabbits is not entertaining because the rabbits don’t do much and she cannot play with them. Ms. C stated: “I can’t entertain them and they can’t entertain me except give me some pleasure.” Ms. D reiterated this sentiment by saying, “I do go when they have it and [I] go walk around and each one gets ah a good pat and I talk to them but that’s the most that I do.” The theme restricted opportunities for making meaning appears to be connected to both the limitations of the program and to using rabbits. Many expressed wanting to do more with the rabbits such as “play with them” [Ms. C] which is also related to how the program is designed.

Two other findings that are not themes per se include potential for reminiscence and good activity animal. Both of these findings further highlight the potential benefits of engaging in RAA.
Although these findings stem directly from responses prompted during the interview, potential for reminiscence was also observed to naturally occur during the activity sessions.

**Potential for reminiscence.** Reminiscence refers to instances in which a study participant recalled memories, when prompted, in reference to interacting with rabbits or other pets. This result also includes other experiences with rabbits such as raising, eating or hunting them. Although the stories described here emerged after prompting, it should be noted that I also observed participants spontaneously reminiscing during the activity sessions about past interactions with rabbits or other pets. One example of an unsolicited reminiscence that I observed was: “I had one in the house and she used to sleep on the bed.” These direct observations together with the responses from the in-depth interviews suggest that RAA have the potential to promote reminiscence. All participants in the interviews were able to recall memories about pets and animals when asked, with most referencing rabbits. Two participants, Ms. F and Ms. H, both retold stories from their younger, married days. Ms. F described how years ago new neighbors moved in next door with a pet rabbit. She said:

> We had the youngest, the nicest young couple [that] had just got married and they said, ‘you know we want to take a trip and we want to know if you would babysit our bunny?’ I said ‘sure’ and he was so pleasant.

Ms. H recalled memories about rabbits and her children during her first marriage by saying:

> In the early eighties, I had three kids, [someone] gave us white bunnies for the kids. I don’t know how they got loose, but they got loose out of their box so they went all over the yard. They were real pretty.

Others recounted memories from their childhood. Ms. G, a women whose father raised rabbits during the depression, reminisced about the first rabbit she received:

> When I was about ten or eleven years old we had ah two newspapers here. It was almost Easter time. It ran pictures in the paper of the rabbit, eggs and little baby chicks and for the youngster that colored theirs pretty got a big white rabbit with red ears. So I colored the picture and mom sent it in and I won a rabbit.

Ms. C retold a story from her childhood about family dinners and her grandfather:

> I did not have an interaction with it but my grandfather was a hunter and he hunted rabbit… I should have told you at the beginning that I had rabbit for supper… my mother made delicious rabbit and cooked potatoes.
Many participants also brought up memories related to past pets that were not rabbits. Ms. D who was very attached to her cats throughout her life commented, “I had a cat, three cats in my life. The first one I had, yeah I was married and the kids they wanted this cat.” Ms. A told a story about her dog that she owned growing up:

I have had a dog…fifteen years almost…Daisy…she was a Cocker Spaniel and an English Setter…she put her head sideways and she was listening to me. I wrapped her up like the bunnies and I put a blanket on her.

All of these quotes show how animals have played a role in the participants’ lives, either as pets or utility animals. Often these recollections are linked to positive family memories that seem to give the participant a chance to recall meaningful events from their lives.

**Good activity animal.** Despite some participants remarking that the rabbits were somewhat limited in the interactions they provided, when asked, all program participants expressed that rabbits are a good animal to use for animal-assisted activities (AAA). Several participants remarked that rabbits are a good choice because they are calm, quiet and seem interested in individuals. Mr. B who enjoyed the docile nature of the rabbits said, “[They] seem to hold your attention longer…I would say they are the best type of animal to have because of their even temperament.” Ms. D and Ms. C compared the rabbit-assisted activity to one that utilizes dogs that is also conducted in the facility. Ms. D commented that she liked the rabbits, “Because [the rabbits] are quiet, dogs are running and jumping.” Ms. C echoed this statement by saying, “Well the bunnies stay still. The dogs will either jump or run away and the bunny will just sit where he is. He is quiet.” Ms. G also compared the use of rabbits to dogs and seemed to feel that the rabbits are not only more contained but cleaner. Ms. G said, “Well the little dogs run all around sniffing people you know. Where the girls have the rabbits up in their arms and the basket you know…maybe cleaner than the dogs.” Another participant, Ms. H also noted that the rabbits might be cleaner then dogs. Ms. H commented: “I would say so they are not dirty like other animals. They are pretty clean, clean animals.”

These quotes seem to suggest that participants enjoy the interactions with rabbits due to their calm, docile and clean nature. Some of the participants drew parallels to the dog-assisted activity program that is also conducted in the facility. They stated that the dogs are hyper which may suggest that the dogs cannot provide as soothing and calming experience as the rabbits.
Discussion

The purpose of this study was to gain an understanding of the meaning and experience of rabbit-assisted activities (RAA) among older adults living in a residential facility. Several benefits of participating in RAA were identified, with no negative impacts of RAA articulated by the residents. The participants did, however, highlight drawbacks pertinent to the design of the program and potential limitations of using this type of animal.

One of the benefits reported by participants was that they found their interactions with the rabbits to be a soothing experience. This finding is consistent with existing literature documenting the physiological benefits of owning pets (Allen, 2003; Allen, Blascovich, Tomaka & Kelsey, 1991; Allen, Blascovich & Mendes, 2002; Brody & Biley, 1999; Pachana, Ford, Andrew, Dobson, 2005; Siegel, 1990). The soothing reaction that participants in this study reported may help explain the positive physiological effects of pets that have been reported in the literature. Odendell (as cited in Davis, 2011), for example, found that cortisol levels declined among 18 individuals after petting an animal. Likewise, Allen and colleagues (1991; 2002) have found that the presence of a pet decreases stress indicators such as high blood pressure. Despite their study not focusing on pet ownership, Katcher and Wilkins in 1993 also found that watching fish in an aquarium was as relaxing for adult patients undergoing oral surgery as hypnosis. By measuring physiological markers of stress they found that exposure to the aquarium decreased blood pressure and was an effective treatment for relaxing individuals. Although it needs to be explored in future research, one potential benefit of interacting with rabbits may be that it serves to blunt physiological stress responses.

The soothing reaction reported by some of the residents might be explained by the biophilia hypothesis developed by Wilson (1984; 2002). As noted previously, he argued that humans have developed an affinity for calm animals, such as rabbits, because calm animals were perceived as less threatening to our survival. This is one of the reasons that calm animals are thought to produce beneficial and soothing effects for humans as opposed to animals that signal danger (Melson & Fine, 2006). This might contribute to why my study’s participants experienced a soothing emotional reaction from interacting with the rabbits. It is possible that rabbits produce a greater soothing effect than other animals, as some participants noted that the rabbits were calmer than the dogs that visited the facility as part of another animal-assisted activity program. However, this will need to be investigated in future research.
In accord with Dookie (2013) and Kogan (2000), all of the residents in my investigation indicated that their interactions with the rabbits facilitated communication with others. Throughout data collection, residents were observed to or stated that they talked to the rabbits directly or communicated with other individuals about the program. RAA may foster the development of relationships within the residential facility since it seems to serve as a basis for initiating conversation. Although it will need to be explored in future research, by increasing communication and socialization among residents, RAA may ultimately serve to reduce feelings of loneliness and isolation that can accompany living in a residential facility.

For some residents, the rabbits also served as a source of emotional support. This benefit is consistent with existing studies that have examined pets as a source of perceived social support (McConnell et al., 2013; Arkow, 2013). Among pet owners, the emotional support received from their pets has been found to be comparable to the emotional support provided by their family (McConnell et al., 2013). It should be acknowledged, however, that only two of the eight participants reported that the rabbits served as a source of emotional support. This could be due to the fact that RAA is a visiting program that limits the amount of time that residents can interact with the rabbits. This may minimize opportunities for residents to form close connections with the rabbits. Nevertheless, this study suggests that even in the context of these brief interactions, the rabbits served as a source of social support for some individuals.

One additional possible benefit of engaging in RAA is the potential for reminiscence. Existing research suggests that reminiscence can be beneficial for older adults (Cohen, 2005; Doyle, 2013; Sellers & Stork, 1995; Chiang, K., Chu, H., Chang, H., Chung, M., Chen, C., Chiou, H., & Chou, K, 2010). Studies that have examined reminiscence postulate that reflection on one’s experiences throughout the life course can provide individuals with a greater sense of personal meaning about their lives (Butler, 1963; Sellers & Stork, 1995). Other benefits of reminiscence that have been identified in the literature include: increased self-esteem, socialization, coping abilities and a reduction in depressive symptoms (Chaing et al., 2010; Sellers & Stork, 1995). In this investigation, I found that participants spontaneously recollected memories during this study’s observed activity sessions and were readily able to do so during the interview. Ms. F, for example, was observed during the activity to naturally reminisce about babysitting her neighbor’s rabbit, which she also retold during the interview. This illustrates how RAA may be a means by which to promote this potentially beneficial process.
Although no negative aspects of participating in RAA were identified by the participants, the design of the program may have limited opportunities for the participants to derive meaning from the activity. Most participants commented on the structural limitations of the program, including the short length of the visits and the inability to play with or feed the rabbits. Additionally, some of the participants commented on the somewhat limited capabilities of the rabbits. However, all participants, when asked, described them as being a good animal to use for animal-assisted activities (AAA). One cited reason for this was the calm and clean nature of the rabbits. Others directly compared the program to one that utilized dogs in the facility and often commented that the dogs were hyper. It may be, therefore, that the residents’ perceptions of the rabbits and the meaning they derive from the activity would be enhanced if the visits were longer and more interactive.

While this study makes an important contribution to the literature on animal-assisted activities, several limitations of this study should be noted. First, the sample only included current and repeat participants of RAA. This may partially explain why no negative aspects of participation emerged, as residents who found the program unpleasant did not return. In the future, it would be helpful to interview residents that had just attended the activity for the first time or to seek out residents that had once participated but stopped attending. This would provide a more representative and unbiased account of the rabbit-assisted activity program and potentially offer insight into how to further enhance the program. Second, although the goal of qualitative research is not to make broad generalizations about a larger population of interest, a more diverse sample could have broadened our understanding of the meaning and experience of RAA. In this investigation, the participants were predominantly white and female. Since the experience of RAA may be different for men and members of other ethnic groups, future research should be undertaken with more diverse samples. Despite this limitation, the sample size was ample enough to ensure trustworthiness with eight interviews. This falls within the recommendation made by Creswell (2007) of including five to ten participants. Saturation of data was also reached due to the fact that residents across multiple interviews expressed similar sentiments.

Third, increased periods of direct observation could have provided a more comprehensive understanding of the experience of RAA. By doing so, more participants and their reactions over time could have been recorded. From directly observing the activity sessions, I was able to learn firsthand what reactions and experiences residents had while participating in the program. By
collecting data via direct observation, I was also able to enhance the trustworthiness of the study because I was able to perform methodological triangulation. I compared field notes taken during the observation phase of data collection to the transcripts from the interviews. I established that the results from the observations and interviews did converge because many of the same sentiments were expressed in both phases of data collection. Since data was drawn from multiple sources I was able to capture a broader range of the participants meaning and experience of engaging in RAA. To finalize the triangulation, both the observations and interviews were then compared to the existing literature with all three converging. One illustration of how using triangulation enhanced my study’s results pertains to the potential for reminiscence. By using two procedures for data collection, I was able to confirm that participation in RAA naturally caused residents to reminisce as opposed to only documenting that they reminisced after prompting in the interview.

Fourth, verifying responses with participants was the only method of trustworthiness used during data collection. In the future, it might be helpful to member check the results by presenting the aggregate findings to the participants to further ensure that the themes correctly match what the participants expressed. Nevertheless, verifying participant responses did enhance the trustworthiness of this study because it allowed for the reiteration and confirmation of ideas throughout the interviews.

This study suggests that older adults in residential care facilities may derive several benefits from AAA. Since this is the first study to specifically examine using rabbits in AAA, more research is warranted in order to provide a greater depth of understanding on this type of activity. As noted previously, additional qualitative research with a diverse sample could have been useful because it would allow for a broader and more diverse examination of this phenomenon. Quantitative research in the form of a randomized control trial could also shed important insights into the physiological, psychological or social aspects of engagement. By doing so, RAA could be statistically compared to other types of non-animal activities and/or to other animal-assisted activity programs that utilize different animals. Furthermore, with most of the existing literature focusing on pet ownership, additional studies are needed to examine the benefits of short term interactions with animals, such as the ones provided through visiting teams that perform AAA. There are many animal programs that visit with older adults across the country but the impact of
participation is underdeveloped in the research literature. Until there is more research conducted on visiting animal teams evidence to suggest that they are effective is limited.

While there were no negative aspects to engaging in RAA, some drawbacks were identified by the participants. These were in reference to the design of the program as most participants wanted a more interactive experience, such as feeding the rabbits or longer physical contact. Residents may derive greater meaning from the program if they are allowed to hold or pet the rabbits for a longer time.
Conclusion

This study suggests that the experience of rabbit-assisted activities (RAA) is generally positive and beneficial for the residents involved. Four perceived benefits of program participation—soothing, catalyst for communication and socialization, source of social support, and potential for reminiscence—were identified. One of the most supported and robust of all the findings is that RAA provides participants with an opportunity to communicate and socialize. This theme was observed during the activity sessions and was noted by all eight participants that were interviewed. No negative aspects of program participation were indicated, however, one perceived drawback—restricted opportunities for make meaning—did emerge. The drawback was related to the structure and design of the program and the somewhat limited ability of the rabbits to provide meaningful interactions. Despite the limited research on visiting animal teams, this study’s findings seem to suggest that older adults living in residential facilities may benefit from interacting with rabbits briefly or infrequently.
References


Davis, R. (2011). *Caring for family pets: Choosing and keeping our companion animals healthy.* Santa Barbara, CA: ABC- CLIO LLC.


Appendix

Appendix A. Interview Questions
1. Thinking broadly, when you think of rabbits what are the first words that come to mind?
2. Can you tell me about a time in your past when you may have had an interaction with a rabbit? It can be anything. [Probes: Did you have any childhood experiences with rabbits? Have you seen rabbits in the pet store or a county fair? Perhaps, knew people that raised rabbits?]
3. What made you want to interact with rabbits at that time in your life?
4. Can you talk about if pets have ever played a role in your life. [Probes: What was your favorite pet and why? For people who don’t like pets: Can you talk about the things you don’t like about pets?]
5. [If they owned a pet] can you describe what you liked about owning a pet? Does this program remind you of the time when you owned a pet?
6. In general, what would you describe as your favorite hobby or activity? What was the thing you liked most about it? Is it something you are able to do now? [If no, what, if anything, has taken the place of that hobby?]
7. Going back to the rabbit activity program, can you tell me about the first time you came to this activity?
8. Can you describe what you like about this activity?
9. What makes you want to interact with the rabbits during this activity?
10. How do you feel when you pet the rabbit?
11. What do you think about when you pet the rabbit?
12. If you could name the rabbit anything what would you name it? [Probe: Why?]
13. Can you tell me a story of when you may have opened up to the rabbit? [Probe: What do you say?] Or (if observed to talk to the rabbit) I saw you talked to the rabbit, what do you say to the rabbit?
14. Can you tell me about a time when you felt connected to a rabbit in this activity? [Probe: Do you generally pet the same rabbit every time? Why? Can you tell about your favorite rabbit, if you have one?]
15. Can you tell me why you keep coming to this activity?
16. Can you tell me about any other activities that you go to here? Is there anything different about the rabbit activity? [Probe: Can you give me an example?]
17. Are there any other benefits of this activity that you would like to mention that have not been covered?

18. Tell me about a time, if ever, when you experienced a problem with this activity? [Probe: Can you tell me more about that? What was the problem?]

19. Can you tell me a story about a time, if ever, when you did not enjoy this activity? [Probe: What caused you to not enjoy it? What would have made it better?]

20. Can you tell me what you think about using rabbits for this type of activity? Do you think they work well, or would another animal work better?

21. Can you describe any changes you would make to this activity program?

22. Can you tell me about the people in your life that you feel comfortable talking to about personal things?

23. Can you describe a time when you may have talked to other people about this activity?

24. How would you describe this activity to a friend that knew nothing about it?

25. Tell me about a time, if ever, that participating in this program made it easier for you to talk to other. [Probe: How so? Do you think it is the rabbits that make it easier for you to talk with others, or is it something else?]

26. Is there anything else you would like to say that was not covered that you think I should know?
Appendix B. Insights on the Logistics of Rabbit Assisted-Activities from the Facilitator Interview and Direct Observation

The rabbit-assisted activity program that was investigated is administered by a rabbit team consisting of the activity facilitator and one to two volunteer assistants. The activity facilitator is an affiliated of the national organization Bunnies in Basket (www.bunniesinbaskets.org) which trains and certifies individuals to conduct rabbit-assisted activities (RAA).

The activity program is informal and unstructured. The rabbit team is escorted around the building to the various units by the facility’s activity director or one of the facility’s activity coordinators. The rabbit team visits with residents in the common areas and hallways as well as with individual residents in their rooms. In the case of room visits, the facility employee knocks on the resident’s door and asks if the resident would like to see the rabbits. If the resident says “yes” then the rabbit team enters the room. If the resident says “no” or “later,” the team does not enter the room.

I identified five important themes or domains from the activity facilitator’s interview in reference to the logistical aspects of conducting RAA. These include: rabbit selection, training, visit preparation, safety, and funding.

**Rabbit selection.** All of the rabbits that were selected for RAA were rescued from a non-profit rabbit rescue organization. When the activity facilitator selects rabbits she looks for ones that seem to be interested in humans and have personalities that are outgoing and calm. Specifically, she reported that “you look for the personality of a bunny that wants to be out there with people.” In addition, the activity facilitator mentioned that she also chooses rabbits that she feels she can trust to behave in the appropriate manner such as acting docile and remaining in the basket.

**Training.** Training is required for both the rabbit team and the rabbits. Bunnies in Baskets training takes six months and requires individuals to complete online courses, readings, homework assignments and blogs (Bunnies in Baskets, n.d.). Upon completion of the six-month course, individuals must bring their rabbit to a veterinarian to assess the health of the rabbit before they can be approved by the organization (Bunnies in Baskets, n.d.). The rabbit team’s training consists of learning how to handle the rabbits to ensure their safety and comfort. Members of the rabbit team also receive training with respect to proper etiquette and nursing home procedures, including observing posted warning signs, disease prevention and knowing who to contact in case of emergency. One example of observing posted warning signs is not entering units where residents
may be sick with a contagious disease. Whereas disease prevention includes learning about diseases that can pass from animal to human. For instance, methicillin-resistant staphylococcus aureus or MRSA for short is a bacteria that can be passed to the resident or animal via contact if the resident or animal is infected.

Training of the rabbits, which takes place up to seven days a week in ten minute sessions, is extensive and is conducted exclusively by the activity facilitator. The training process is incremental in nature, with the intensity of the training increasing each week. The activity facilitator begins the training process with the requisite training set forth by Bunnies in Baskets (Bunnies in Baskets, n.d.). In addition to the training required by Bunnies in Baskets, this particular activity facilitator further trains and evaluates all of her rabbits using a modified Canine Good Citizen’s test. The Canine Good Citizen’s test was originally developed by the American Kennel Club in 1989 (American Kennel Club, 2015). The test has been modified by the activity facilitator to evaluate the training the rabbits have undergone for sudden loud noises, things rolling past them, things on the floor, heavy petting and general obedience. During the interview with the activity facilitator, she explained that part of the rabbit’s training includes having an individual clap his or her hands as loudly as possible directly over the rabbit’s ears, with the goal of teaching the rabbit to remain calm despite the sudden noise. The rabbit is similarly trained to remain calm when things roll past them on the floor, particularly items commonly found in residential facilities such as food carts which may alarm an untrained rabbit. The rabbits are trained to sit in the basket for up to one hour. Retraining is undertaken at least once a month to ensure that “[the rabbits] remember what they are supposed to do when they [visit the facility].” During the interview, the facilitator also mentioned that she uses hand signals to train the rabbits instead of vocal commands. This is done to prevent resident confusion. If the facilitator said “no” to the rabbit, for instance, the resident might think the facilitator was speaking to him or her as opposed to the rabbit. It should also be noted that if the activity facilitator feels that the rabbit does not enjoy the training, training is discontinued and the rabbit is not used in the program.

Visit preparation. The activity facilitator feeds the rabbits, cuts their nails, grooms them and gives them a massage. During RAA the comfort of the residents and the rabbits are ensured by presenting the rabbits in a basket lined with an “accident” resistant blanket. This acts as a barrier between the resident and rabbit which is required by many residential facilities and certifying animal organizations when placing an animal on furniture, such as a bed (Bunnies in Baskets, n.d.;
Lefebvre, Golab, Christensen, Castrodale, Aureden, Biolachowski, Gumley, Robinson, Peregrine, Benoit, Card, Horne & Weese, 2008; Lorraine, 2014; Pet Partners, 2015). The blankets can also be used to place a rabbit on a resident’s bed with the rabbit being trained not to leave the blanket space.

Safety. According to the activity facilitator, constant focus on the resident’s and rabbits’ body language is key to promoting the safety of the residents and rabbits. The rabbits are not rewarded with food treats because the facilitator believes it could result in injury to the residents. During visits, residents may stick out a finger for the rabbit because they believe the rabbit will sniff them like a dog. However, since rabbits cannot see directly in front of their face, they may think its food and nip the resident.

Funding. Although there are numerous expenses, the rabbit-assisted activity program is conducted free of charge. To fund the program, the facilitator relies on donations from the community and grants. The facilitator reported that one of the reasons they receive donations is because the rabbit-assisted activity program is “something different” and individuals like that they “are giving back [to the] community.”
## Appendix C. Codebook

<table>
<thead>
<tr>
<th>Code</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Support</td>
<td>Refers to any time a participant described receiving emotional support from the rabbits themselves. Does not include emotional support that they may have received from other individuals. Animals only.</td>
</tr>
<tr>
<td>Communication</td>
<td>Refers to any time a participant discussed talking to the rabbits, the rabbit team and/or others regarding the rabbit program. This includes conversations that they may have had with other residents, friends or family regarding topics that are not directly tied to the rabbit program. This is different from 'reminiscence' because these conversations deal with the present, not past occurrences or memories.</td>
</tr>
<tr>
<td>Rabbit v. Bunny</td>
<td>Any time a participant made a distinction between a wild rabbit and a domestic pet rabbit.</td>
</tr>
<tr>
<td>Biophilia</td>
<td>Refers to when participants mentioned that the rabbit program is different than other activities because the rabbits are alive.</td>
</tr>
<tr>
<td>Reminiscence</td>
<td>Any time a participant recalled memories in reference to owning pets, having interactions with animals or knowing someone that had pets, etc.</td>
</tr>
<tr>
<td>Tactile Sensation</td>
<td>When participants mentioned anything to do with the fur of the rabbits.</td>
</tr>
<tr>
<td>Easter</td>
<td>Any time a participant mentioned associating rabbits with Easter.</td>
</tr>
<tr>
<td>Utility</td>
<td>Refers to when participants described the rabbits as being a farm animal or for hunting as opposed to a pet.</td>
</tr>
<tr>
<td>Soothing</td>
<td>When participants mentioned anything in reference to feeling calm, relaxed or soothed by the presence of the rabbits and/or the act of petting them.</td>
</tr>
<tr>
<td>Benefit</td>
<td>When participants mentioned something positive about the activity. Can also refer specifically to the question that asked them about the benefits of participating in this program.</td>
</tr>
<tr>
<td>Drawback</td>
<td>When participants mentioned something negative about the program. Also refers to the specific questions that asked if there were any drawbacks to the activity or things they did not like about the program.</td>
</tr>
<tr>
<td><strong>Prior Connection</strong></td>
<td>Any time a participant expressed a prior interaction or connection with a rabbit. Can include anything. For instance, seeing a rabbit in a store. This is different from 'reminiscence' because this deals specifically with prior interactions with rabbit’s not prior non-rabbit pets or memories about different animals.</td>
</tr>
<tr>
<td><strong>Good AAA Animal</strong></td>
<td>When participants mentioned that the rabbits were a good animal to use for this type of activity program. Can be in direct response to the question that asked if they found the rabbit to be a good animal to use for this type of activity or if another type of animal would work better.</td>
</tr>
<tr>
<td><strong>Socialization</strong></td>
<td>Refers to any time a participant described the rabbit program as providing an opportunity to socialize with other individuals.</td>
</tr>
<tr>
<td><strong>Limited</strong></td>
<td>Any time participants mentioned something about the rabbits being limiting in their ability to provide meaningful interactions.</td>
</tr>
</tbody>
</table>