FOR PETS' SAKE:

IS THERE A NEED FOR DOG SAFETY COMMUNITY EDUCATION?

by

Jaclyn Nicole Falcone

A Dissertation Submitted to the Faculty of

The College of Education

In Partial Fulfillment of the Requirements for the Degree of

Doctor of Philosophy

Florida Atlantic University

Boca Raton, FL

May 2017

FOR PETS' SAKE:

IS THERE A NEED FOR DOG SAFETY COMMUNITY EDUCATION?

by

Jaclyn Nicole Falcone

This dissertation was prepared under the direction of the candidate's dissertation advisor, Dr. Valerie Bryan, Department of Educational Leadership and Research Methodology, and has been approved by the members of her supervisory committee. It was submitted to the faculty of the College of Education and was accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

SUPERVISORY COMMITTEE:

Valerie C. Bryan, Ed.D.
Dissertation Advisor

Meredith Mountford, Ph.D.

Mary Lieberman, Ed.D.

Robert Shockley, Ph.D.
Chair, Department of Educational Leadership and Research Methodology

Valerie J. Bristor, Ph.D.
Dean, College of Education

Deborah L. Floyd, Ed.D.
Dean, Graduate College

April 10, 2017
Date

ACKNOWLEDGMENTS

Completion of this dissertation could not have been possible without the encouragement and support of many. I feel blessed to have my loving family, friends, and professors who contributed to the completion of this project.

Thanks especially to my mother, Nadine, my biggest cheerleader since the day I was born. It was my mom who instilled in me the power of education and the confidence to achieve anything I set my mind to. I am certain the value I place on education is due to my mom's influence.

A big thank you to my patient and inspiring husband, Nicholas. Who was my sounding board throughout this entire process and supported me in my decision to undertake a personal and emotional mission. He has stood by me in my pursuit of higher education since this journey began in 2010.

Thank you to my siblings Thomas and Michelle, Daniel, Matt, Anna, and Ashley, and my Mother in law Marcy for promoting this project and delighting in the progress with loving support.

ABSTRACT

Author:	Jaclyn Nicole Falcone
Title:	For Pets' Sake: Is There a Need for Dog Safety Community Education?
Institution:	Florida Atlantic University
Dissertation Advisor:	Dr. Valerie Bryan
Degree:	Doctor of Philosophy
Year:	2017

The history of the human-canine relationship and the human-canine bond is longstanding and has grown and developed throughout the years. Today, dogs are considered part of the family and are beneficial in impacting people across the United States. Introducing the community to dog safety education may strengthen the awareness and confidence of dog lovers across the state of Florida and hopefully reduce the number of preventable dog emergencies.

This research suggested the reasons for dog ownership and the importance of protecting our beloved canines by presenting a literature review covering the evolution of the human-canine relationship, human-canine bond, positive effects of canines on humans, history of humane education to demonstrate the importance of dogs in the lives of American citizens and an overview of community education and the importance dog safety community education.

The purpose of this mixed methods study was to understand the current state of dog safety community education in Florida and to introduce the need for policies and procedures for dog safety training for adults, if needed based on the research. This topic was analyzed through a needs assessment administered through a Parks & Recreation department in south Florida and online through social media. Ten key informants were selected to interview for an in-depth understanding of their perspective on this topic. Document analysis was conducted to see if results of the needs assessment were addressed in brochures and other media locally. The participants were community members of Florida who were also dog owners. Participants were adults over the age of 18. The participants' anonymity was protected, as no names were collected from the survey.

After carefully examining data collected from 10 interviews, document analysis, and surveys of 150 participants who are dog owners in Florida, the researcher of this study revealed factors that show substantial value that dog owners place on their dogs and interest in educational opportunities to protect their safety. The significance of this study presented additional research dispelling a misconception that dog safety education as easily accessible and available in Florida based communities. This study was also significant because it contributes to the literature by identifying the value dog owners place on their dogs, as demonstrated in both survey and document analysis.

DEDICATION

This dissertation is dedicated, in loving memory, to our puppy Gianni.

You will forever remain in our hearts.

FOR PETS' SAKE:

IS THERE A NEED FOR DOG SAFETY COMMUNITY EDUCATION?

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1. INTRODUCTION

The human-canine relationship is longstanding in the United States and has developed throughout our country's history. The Humane Society of the United States estimates 78.2 million dogs are owned. To put that number into perspective, almost half (46%) of the households in the United States of America own at least one dog. (Marinelli, Adamelli, Normando & Bono, 2007). With nearly half of the homes in our country occupied by dogs the impact of this study is widespread. This impact is even greater when taking into account that 51% of American dog owners perceived their dogs as members of the family according to the *2002 United States Pet Ownership and Demographics Sourcebook* (Dotson & Hyatt, 2008). The value Americans place on their dogs is exemplified by looking at the amount of money dog parents spend each year on their dogs. In 2001, pet spending topped over $61 billion during the year, with the average household spending more than $500 on their pets (US Bureau of Labor, 2013). Pet spending peaked, at $571 per household, in 2008 and then dropped off sharply after the recession, eventually hitting a low of $480 in 2010. It is interesting to note that even during the recession, pet spending, as a share of households' total spending, picked up slightly from 0.9 percent in 2007 to 1.1 percent in 2008 and 2009.

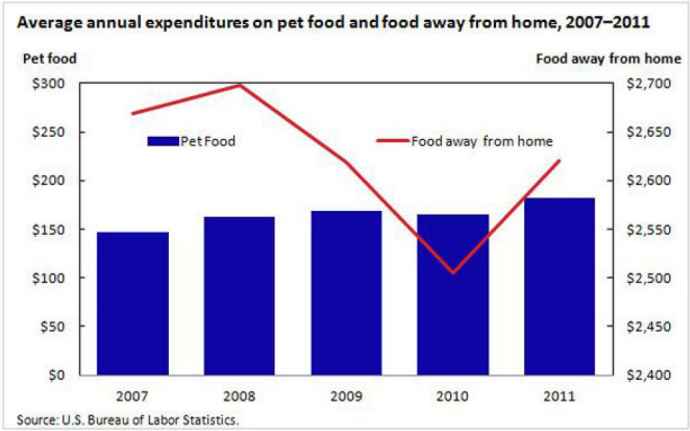

Figure 1. Average annual expenditures on pet food and food away from home, 2009-2011.

The Labor Department data in Figure 1 demonstrate that dog owners in the United States remained loyal to their pets during the recession. They selflessly reduced their personal luxury of dining out to provide steady spending on pet food through the heart of the economic downturn. Dog ownership has developed over the years in the United States and the human-canine bond is recognized across the country as important, and in many cases, necessary for health and security needs. This is exemplified in research collected throughout the literature review. Such examples include, Camp's research (2001) which identified themes including a greater likelihood to have fun, increased community participation, personal skill development, and social contact as a result of dog ownership. Just a small act of petting an animal promotes relaxation by decreasing blood pressure (Messent, 1983; Nagengast, Baun, Megel, & Leibowitz, 1997) and increasing peripheral skin temperature (Velde, Cipriani, & Fisher, 2005). Dog owners, compared to non-dog owners, were more likely to achieve the recommended amount of physical activity time (Brown & Rhodes, 2006). Between the 1960's and 1980's dogs and cats were used in therapy by many clinicians (Beck & Katcher, 1996) and today animal assisted therapy (AAT) is widespread, and even seen on Florida Atlantic University's college campus.

Although the importance and benefits of dog ownership is well documented, limited articles focused on emergency management and response have been published in the context of animals in disasters. The existing publications address the logistics and justification of including animals in planning (Edmonds & Cutter, 2008; Leonard & Scammon, 2007). Protecting dog's safety by educating the community may strengthen the awareness and confidence of dog lovers across the state of Florida and hopefully reduce the number of preventable dog emergencies that not only impact the dog, but the dog owner as well. There is a strong relationship between humans and animals and a growing body of research has been developing to support this (Risely-Curtiss, 2010). This research demonstrates the reasons for dog ownership and the importance of protecting our beloved dogs through a literature review covering the evolution of the human-canine relationship, human-canine bond, positive effects of canines on humans, and history of humane education to demonstrate the importance of dogs in the lives of American citizens. Chapter 2 provides an overview of community education and the importance of dog safety community education. This research includes information on current services and utilization patterns, as well as recommendations on how the community can effectively meet the needs of the members they aim to serve.

Chapter 3, the methods section, describes the details of the how this study was carried out. Qualitative and quantitative data was gathered at the same time and integrated to better understand the problem. Qualitative data was collected through document analysis and ten interviews from veterinarians, police officers, fire fighters, humane shelters, and dog obedience schools. Quantitative data analysis was conducted through an online survey. Chapter 4 describes the results of this study. An in-depth

analysis on the data collected is provided. Chapter 5 provides the conclusion and recommendations based on the findings of this research.

Conceptual Framework

Dogs have made their way into the homes and hearts of millions of Americans. In fact, 51% of American dog owners perceived their dogs as members of the family according to the *2002 United States Pet Ownership and Demographics Sourcebook* (Dotson & Hyatt, 2008). These dog owners view themselves as parents to their dogs. The grief of animal loss in normal times can be just as intense as losing a human (Neimeyer, Harris, Winokuer, & Thornton, 2011). Several nursing researchers such as McCubbin and McCubbin (1993), have examined individual, family, and community strengths and resources that were in place through adversity and how these strengths and resources have led to positive outcomes for individuals and families facing adversity (McCubbin & McCubbin, 1993; McCubbin, Thompson, Thompson, & Fromer, 1998).

The framework is based on the value dogs have in the lives of American families and the emphasis the community places on educating the individuals on safety techniques. Adult learning and community education are at the core of this framework as it is the centralized hub. The Figure 2 below is a visual representation of the conceptual framework for this study:

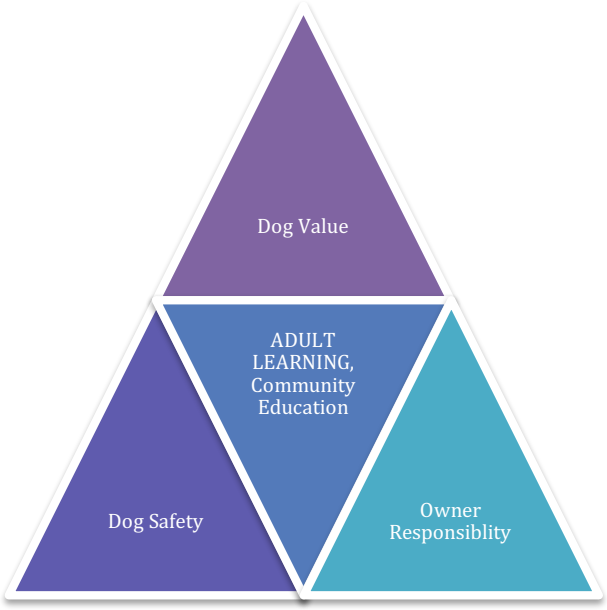

Figure 2. Conceptual framework for the study

Statement of the Problem

According to the American Animal Hospital Association (AAHA, 2016) in an emergency situation, one-out-of-four more pets would survive if a pet first aid technique was applied prior to receiving emergency veterinary care. The grief of animal loss in normal times can be just as intense as losing a human (Neimeyer, Harris, Winokuer, & Thornton, 2011), with the impact felt most by the elderly, children and families (Sharkin & Knox, 2003). This may be an opportunity to introduce a community of learners (dog owners) to the need for dog safety, in an effort to reduce the number of preventable canine tragedies through education and training and possibly extend the relationship of the public with their dogs.

Purpose

The purpose of this mixed methods study is to describe the current state of dog safety community education in Florida and to propose policies and procedures for dog

safety community education for adults, if needed based on the research. This topic was analyzed through a survey needs assessment, interviews and document analysis.

Research Questions

The following central research questions guided this study:

RQ 1: What reasons, do dog owners state for their need for a dog?

RQ 2: How does the literature compare to the survey results on value of dogs to their owners (i.e., physical, physiological, psychological, social, family interaction, social catalyst)?

RQ 3: What ranking, on a sliding scale, do the current dog owners place on the value of their dogs? (9-10 Highest to 01-Lowest)

RQ 4: Do current dog and past dog owners see a value in the creation of dog safety community education?

RQ 5: What community education programs, if any, need to be in place regarding dog safety?

RQ 6: What do professionals working with dogs (veterinarians, police officers, fire fighters, humane societies, obedience schools) believe the importance of canine safety education to be?

Hypotheses

The following Null and Alternative Hypotheses guided the qualitative portion of this study:

Null Hypothesis: There are no unmet dog safety education needs in the community.

Alternative Hypothesis: There are unmet needs dog safety education needs in the community.

Operational Definitions

Policy: The principles that are proposed by a governing body to guide that body.

Adult learning: learning that is "closely related to the developmental tasks of his or her social role" (Knowles, 1973, p. 272).

Adult education: to assist adults to increase competence, or negotiate transitions, in their social roles (worker, parent, retiree etc.), to help them gain greater fulfillment in their personal lives, and to assist them in solving personal and community problems. (Darkenwald & Merriam 1982, p. 9)

Community: "people who live within a geographically defined area and who have social and psychological ties with each other and with the place where they live" (Mattessich & Monsey, 1997, p.6)

Community education: A process designed to enrich the lives of individuals and groups by engaging with people living within a geographical area, or sharing a common interest, to develop voluntarily a range of learning, action and reflection opportunities, determined by their personal, social, economic and political needs. (CeVe, 1990 p. 2)

Dog safety: the precautions an individual can take to eliminate risk, keep dogs healthy and protected.

Dog emergency: Any life-threatening situation that a domestic dog may encounter that require immediate action (ex: unconsciousness, severe bleeding, poisoning).

Pet: For the scope of this research pet is used to describe the specific type of pet, a domestic dog.

Limitations

Wiersma (2000) describe limitations as potential weaknesses in a study and are out of the researcher's control. The difference in how rural and urban populations view and care for dogs could be a limitation in this study. The study home base was in an urban city setting. The study used phone interviews due to the geographic location across the state for the interview participants. The researchers bias is also a limitation of this study. The researcher's 18-month-old dog Gianni, died tragically under her supervision from an accident that could have been prevented.

Delimitations

Wiersma (2000) describe the delimitations are those characteristics that limit the scope and define the boundaries of the study. The researcher has control of the delimitations. The delimitations of this study are that it does not research children specifically and the impact of dogs in their lives. Another delimitations is that this study was participants must own at least one dog. This eliminated pet owners who might only have cats or other types of domestic animals. Results may not be generalizable to all communities.

Significance of Study

The significance of this study presented additional research dispelling a misconception that dog safety education is easily accessible and available in Florida based communities. This study was also significant because it contributed to the literature by identifying the value dog owners place on their dogs, as demonstrated in both survey and document analysis. This study provided insight into the need for dog safety community education and training. This research might form the future policy

recommendations to reduce the number of preventable animal tragedies by providing the highest quality community education to dog lovers everywhere, giving them the tools and confidence to manage life-threatening dog emergencies.

Role of the Researcher

The researcher's 18-month-old dog Gianni, died tragically under her supervision from an accident that could have been prevented. When the researcher called 911, the emergency operator was unable to provide instruction to assist her other than to give Gianni CPR. The researcher, certified by the American Red Cross in First Aid and CPR, was familiar with how to perform CPR on a human and attempted to revive Gianni as she was trained on human dummies until the paramedics arrived at the scene. When the Emergency Medical Technicians and Fire Fighters did arrive, they vocalized that they "don't know the anatomy of a dog" and were hesitant to put their mouth on his snout.

The oxygen masks were made for humans and did not fit Gianni's snout properly, making it impossible for him to receive the oxygen necessary for revival. By the time Gianni was transported to the animal hospital the veterinarians did all they could to save him but he did not make it.

In the weeks to follow the veterinarian shared with the researcher that the first responders came back to the veterinarian's office the next day to check on Gianni to see if he pulled through. This experience has been the most devastating time in the researcher's life, as her dogs are her children. Through conversations with her veterinarian, support groups, and animal activists along with the haunting words and considerate actions of the first responders, the researcher has committed herself to

researching the topic of dog safety education. For these reasons, the researcher brings the assumption that dog safety education will benefit the community.

Chapter Summary

From problem statement to significance of the study, Chapter I provides an overview of the astonishing impact dogs have in our country as evidenced by the highlighted statistics. Chapter one provided an outlined of this study and the chapters addressed in this paper. The overall intent is to improve dog safety policies for the community through education and training.

CHAPTER 2. LITERATURE REVIEW

This literature review provides an overview of community education and adult learning. The review covers the evolution of the human-canine bond, military dogs, and the economic impact of dogs. The reasons for dog ownership and the importance of protecting our beloved dogs are explained through a review of the human-canine relationship. The literature review concludes with the positive effects of canines on humans, which highlights physical, psychological, psychological, family interaction and social catalyst (Bryant & Donnellan, 2007; Wood, Giles-Corti, Bulsara, & Bosch, 2007). The purpose of this mixed methods study is to describe the current state of dog safety community education in Florida and to propose policies and procedures for dog safety community education for adults, if needed based on the research.

Community Education

The 1998 Green Paper on Adult Education was followed by the first policy document, the White Paper in Adult Education by the Government of Ireland (2000), which offered two concepts to formalize Community Education:

> 1. Extension of the service provided by second and third-level education institutions into the wider community (In the community but not of the community).
> 2. As a process of communal education towards empowerment, both at an individual and collective level (p. 110).

The Government of Ireland (1998) identifies in the White Paper on Adult Education marginalized and disadvantaged groups (including the elderly, women's groups, and people with disabilities) as the main population seeking community based educational opportunities. A more comprehensive concept, later developed by AONTAS, the National Association of Adult Education, defined community education as:

> A process of empowerment, social justice, change, challenge, respect and collective consciousness. It is within the community and of the community, reflecting the developing needs of individuals and their locale. It builds the capacity of local communities to engage in developing responses to educational and structural disadvantage and to take part in decision- making and policy-formation within the community. It is distinct from general Adult Education provision, due both to its ethos and to the methodologies it employs (AONTAS, 2000, p. 110).

Community Education embraces the beliefs that: education is a lifelong process, the entire community shares a responsibility of educating community members of all ages, and citizens have responsibility and a right to connect resources to improve their community. There is a basis of learner-centered collaboration and inclusion to advance community learning and sustainability.

Bolman & Deal's political frame views organizations (in this case, the community) "as alive and screaming political arenas that host a complex web of individual and group interests" (Bolman & Deal, 2013, p. 163). To propose dog safety policy into the community, it is important to consider this political framework that assumes the perspective that the community is made up of coalitions of individuals and

interest groups with different perceptions of reality, values, interests and beliefs. Goals and decisions emerge from educating and negotiating for position among stakeholders.

Adult Learning

This section serves as the foundation for a future dog safety community education program to be created. Theories of learning offer a beginning point for doctrines of teaching. The simple notion that there are phases of cognitive development has been pragmatic in various ways within the context of adult education. (Merriam & Caffarella, 1998).

Piaget's (1970) work established a system of cognitive constructivism, whereas Vygotsky (1962) is commonly perceived as holding a social constructivist approach. From this viewpoint, contact with other people and cultural artifacts, not just with new ideas, is vital for learning. Learning is also seen in Vygotskys Zone of Proximal Development a scaffolding process (Bruner, 1977).

Wenger (1998) defined a community of practice (CoP) as being a group of people who regularly engage in activity in pursuit of some jointly negotiated enterprise, thus creating a common collection of doing things that is founded in the continuing process of the community's practice. This concept formed the bases for community education. One goal of this research was to determine if a community of practice made up of dog lovers needs to be developed to see dog safety community education in the state of Florida.

Knowles (1973) outlined a group of assumptions about the adult learner, he called this model of adult learning andragogy. According to Knowles (1984) there are four principles that are applied to adult learning:

1. Adults need to be involved in the planning and evaluation of their instruction.

2. Experience (including mistakes) provides the basis for learning activities.
3. Adults are most interested in learning subjects that have immediate relevance to their job or personal life.
4. Adult learning is problem-centered rather than content-oriented. (p. 57)

Maslow (1970) and Rogers both believe that individuals have an intrinsic drive towards self-direction and growth. Reflection and experiential learning is an important component for all learners, including learners interested in dog safety. Jarvis (1987), model of adult learning in social framework is grounded on the notion that learning turns out to be possible whenever there is a disconnect concerning experience and biography. Personal and transformative learning is outlined in Mezirow's work (1981) where he also suggests that reflection is crucial for personal transformation. A person interacting with a dog often spends time in reflection.

McGivney (1999) found that informal learning produced by community members themselves frequently resulted in broader community involvement and activism, while learning organized by education providers typically let to high rates of educational progression. Informal learning repeatedly started individuals on a continuing learning path by assisting them to become confident and successful learners.

Weil (2003) found distinctive characteristics that humane individuals possess; these include kindness, compassion, generosity, trustworthiness, courage, perseverance and self-control, humor and playfulness, wisdom, and integrity. The humane educator seeks to foster these traits by encouraging personal responsibility (self-efficacy), developing emotional intelligence, challenging students to critically examine cultural values and personal ethics, increasing knowledge about the interdependence of all life,

equipping students with the skills to humanely serve others, and building community within the classroom and in society (Thomas & Beirne, 2002).

Dogs can be our teachers in many ways. This excerpt from *Chicken Soup for the Dog Lover's Soul* (Canfield, 1999) from an unknown author lists 18 "Things We Can Learn from a Dog:"

1. Never pass up the opportunity to go for a joy ride.

2. Allow the experience of fresh air and the wind in your face to be pure ecstasy.

3. When loved ones come home, always run to greet them.

4. When it is in your best interest, always practice obedience.

5. Let others know when they have invaded your territory.

6. Take naps and always stretch before rising.

7. Run, romp and play daily.

8. Eat with gusto and enthusiasm.

9. Be loyal.

10. Never pretend to be something you are not.

11. If what you want lies buried, dig until you find it.

12. When someone is having a bad day, be silent, sit close by and nuzzle them gently.

13. Delight in the simple joy of a long walk.

14. Thrive on attention and let people touch you.

15. Avoid biting when a simple growl will do.

16. On hot days, drink lots of water and lie under a shady tree.

17. When you are happy, dance around and wag your entire body.

18. No matter how often you are criticized, do

not buy into the guilt thing and pout. Run right back and make friends (p. 103)

Human-Canine Bond

The human-animal bond (HAB) is an equally beneficial, relationship among people and animals that is influenced by actions crucial to the wellbeing and health of both according to the American Veterinary Medical Association (Olson, 2002; Schaffer, 2009). Research has advocated that the human-animal bond can have a robust effect as an intervention strategy with a range of individuals (Valentine, Kiddoo, & LaFleur, 1993). To emphasize the Human-Animal Bond concept, *Chicken Soup for the Dog Lover's Soul* (Canfield, 1999) is a book of human-animal bond stories that sold over 1 million copies in the first year of publication.

Over 63% of households in America presently have a minimum of one pet (Walsh, 2009). To quantify that percentage, 78.2 million dogs are owned according to the Humane Society of the United States. Today, most people consider canines to be a *part of the human family* (Risely-Curtis, 2010; Walsh, 2009; Wisdom, Saedi, & Green, 2009) supporting self-efficacy, reinforcing sense of empowerment, and reinforcing self-worth (Beck & Katcher, 1996; Melson, 2003; Wisdom, Saedi, & Green, 2009). This extension of family includes allowing dogs to sleep in their owner's bed (Bradshaw, 2011) and bathe in their sinks or tubs. Owners carry their photographs, obtain medical insurance for them, and treat dogs just like an equal member of the family.

Japanese researchers discovered that dogs that held a long gaze into their owners eyes had higher concentrations of a hormone created in the brain called oxytocin, that is linked with nurturing and attachment, comparable to the reaction that boosts connection

among parent and child. Following receipt of long gazes, the owner's levels of oxytocin boosted, as well. The dogs gaze signals attention from the owner and the cycle continues the oxytocin boost (MacLean & Hare, 2015).

Military Dogs

One of the strongest examples of the human-canine bone is with military dogs and their handlers. Military dog handlers receive training on first aid and care for their dog, as outlined in the training description below. According to the United States Army:

> Job training for Military Working Dog handlers requires 17 weeks of Advanced Individual Training (AIT) on how to care for, handle and train a Military Working Dog (MWD). The training is in two phases. The first seven-week phase covers on-the-job instruction and teaches police methods and techniques for dog handling. The second phase of instruction is an 11-week course in basic obedience, controlled aggression, first aid, principles of conditioning, building searches, scouting, detection, and daily care and grooming of assigned Military Work Dog (U.S. Army, 2016).

Prior to the year 2000, military dogs were abandoned or euthanized after retirement. In 2000, President Clinton passed "Robby's Law" which allows handlers and their families the opportunity to adopt military animals at the end of their service. The dogs are next offered to law enforcement, then adoptive families. Today, war dogs are medaled for their outstanding service. If a war dog is lost in combat, he or she is honored by the entire squad (Frankel, 2014).

Economic Impact of Dog Ownership

In addition to the United States placing a strong value on military dogs, domestic dogs as pets are valued as evidenced by the monetary investment Americans make each year on their dogs. Figure 1 displays the average annual expenditures on pet food and eating out. Pet spending peaked, at $571 per household, in 2008 and then dropped off sharply after the recession, eventually hitting a low of $480 in 2010. It is interesting to note that even during the recession, pet spending, as a share of households' total spending, picked up slightly from 0.9 percent in 2007 to 1.1 percent in 2008 and 2009. The U.S. Department of Labor (2013) data in Figure 1 demonstrate that dog owners in the United States remained loyal to their pets during the recession. They selflessly reduced their personal luxury of dining out to provide steady spending on pet food through the heart of the economic downturn.

Even though an economic downturn might not significantly affect dog owners spending on their pets, having children does. In 2011, single people in the United States spent over $400 per household on average, whereas single-parent households spent two-thirds of that. Similarly, married couples without children at home spent the most on their pets, at nearly $700 annually, whereas households with the youngest children spent around $400 annually, less than 60 percent of the empty nesters. Overall, homeowners spent an average of $653, compared to renters, at $221. The population ready and able to spend more on their pets could be on the rise with baby boomers nearing retirement and a housing recovery in place. These statistics from the U.S. Bureau of Labor Statistics (2013) are displayed in figure 3 below.

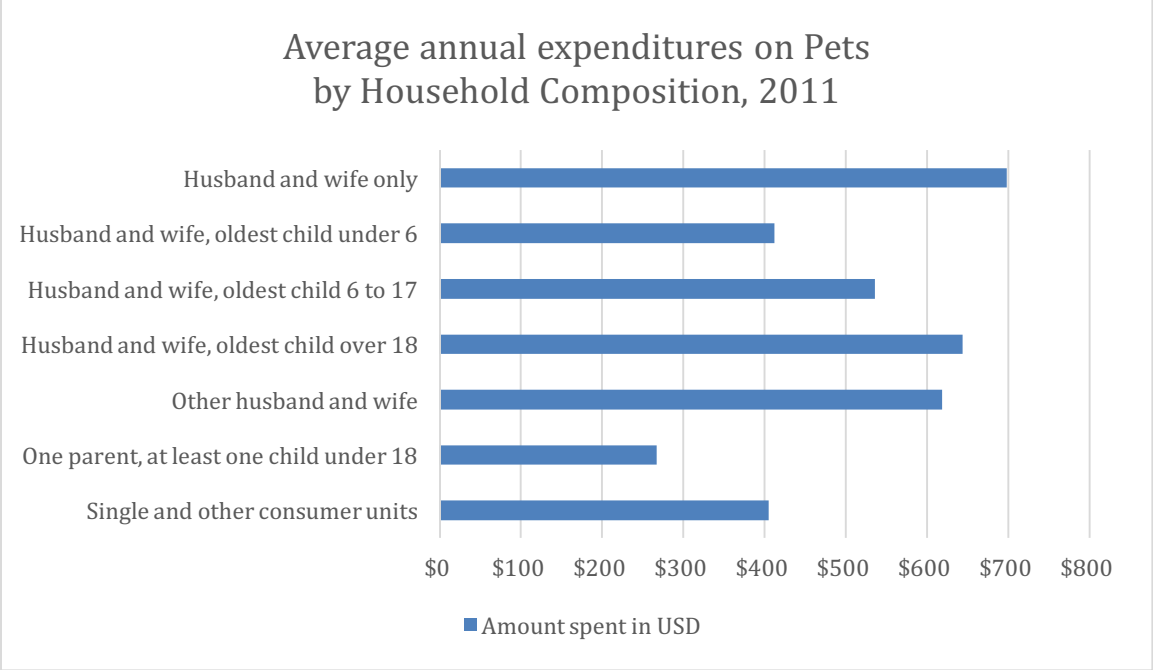

Figure 3. Average annual expenditures on pets vs. household composition, 2011.

The Evolution of the Human-Canine Relationship

It is essential to consider the evolutionary past in order to entirely grasp the importance of human-canine liaison. Archeologists unearthed fossils displaying individuals with dogs since the beginning of civilization (Fawcett & Gullone, 2001). Through history and investigation, researchers have been able to track the development of human-canine existence and interaction. Many researchers concur that the mutually beneficial relationship between people and dogs has subsisted in history for thousands of years (Caspari, 2003; Clutton-Brock, 2006). Proof of this relationship even pre-dates the agricultural revolution (Bradshaw, 2011; Hare & Woods, 2013).

The behavior and function of canines has transformed throughout history to adjust to the human social environment (Russack, 2000). It is interesting to read about the progression. Throughout time, canines have protected, herded, hunted for food, towed

sleds for transportation, used their intense sense of smell for medical and criminal cases, and were the first animal to be domesticated (Dotson & Hyatt, 2008; Schaefer, 2002). Accounts of the human and dog liaison date back to ancient Egyptian, Chinese, and Greek societies. For example, the Han Chinese emperor, Ling, had canines as his senior officials in his royal court. Aristocratic Athenians purportedly paid more money for dogs than they did for human slaves. Mary, Queen of Scots outfitted her small dogs in velvet suits. (Schaffer, 2009)

In the 1790s, a religious group called The Society of Friends, formed the York Retreat to use animals to teach self-control and nurturing skills to asylum patients as a means to deter drug use (Digby, 1984). By 1821 "man's best friend" was used to describe the domestic dog by an unknown author in a poem published in the *New-York Literary Journal*. Sigmund Freud began bringing his dog, Jofi, to psychoanalysis sessions and in the early 1900's he revealed that Jofi's presence allowed his clients to feel comfortable and encouraged to disclose (Beck, 2010).

In *The Dreams That Drive Us,* Wright (2008) describes 1950s and 1960s articles in the Washington Post as saying that families began to move outside of cities and into suburbs, and the quintessential American dream became the notion of owning a home with two kids, a dog, and a white picket fence became. That dream caught on, as there were an estimated 12-15 million dogs in America in the 1950s and 1960s. By the mid-twentieth century canines migrated from outdoor in the doghouse to inside in a luxurious dog bed. The American Veterinary Association published a report approximating the new total number of dogs to be about 51 million in 1991, growing to 68 million by 2002 according to the Humane Society (Katz, 2003, p.10).

Schaffer (2009), addresses the changes in this country in his book *One Nation Under Dog*:

> In a relatively short period of time, the United States has become a land of doggie yoga (sic) and frequent-flier miles for traveling pets, a society where your inability to find a pet sitter has become an acceptable excuse to beg off a dinner invitation, a country where political candidates pander to pet owners and dog show champions are feted like Oscar winners" (Schaffer 2009, p. 8).

Particularly in the city of Boca Raton, where this research is primarily located, one cannot walk through the shopping mall without sighting a dog owner pushing around their dog in a stroller. The canine relationship has continued to expand and today we see the impact of dogs and other pets on humans of all ages (Walsh, 2009; Wisdom, Saedi, & Green, 2009).

Physical

The responsibility of walking a dog comes with its benefits. The human-canine bond has been positive in the area of exercise (Cutt, Giles-Corti, & Knuiman, 2008). Several countries have researched the correlation between dog ownership and physical activity. The connection between dog ownership and physical activity has been the topic of a number of studies (Brown & Rhodes, 2006). In both Austria and the United States, dog owners were more likely to complete the suggested amount physical activity time than non-dog owners (Brown & Rhodes, 2006; Cutt et al., 2008).

In China, pets were banned from urban areas until 1992. Since then, studies have shown that dog ownership has spiked along with health related outcomes. Chinese owners reported exercising more, sleeping better, took fewer sick days and visited the

doctor less often. Overall, they self-reported better fitness and health (Headey, Na, Zhueng, 2008).

Family Interaction

Tannen (2004) reported that families utilize pets as resources in mediating exchanges with one another, using their dogs to cushion criticism, teach values, effect frame shifts, provide approval, facilitate or evade conflict, and both reflect and establish familial identities. An anecdotal story follows how this can occur: when a wife is yelling at her husband in an quarrel, the husband turns to their dog and in a baby voice says "Mommy is upset right now, Daddy needs your help, Luna! Can you give her kisses so she can be happy again?" The obedient dog goes to the wife, kissing her face, causing the wife to laugh and the husband to breathe a sigh of relief.

In this example the dog was able to mediate this situation, she provided comedic relief in a time of conflict, and shifted the frame to that of a family bond. Dogs can become a resource for communication between families. Pets, and generally dogs, are able to buffer criticism and constitute family bond, especially for couples without human children because according to Bilger (2003), "Eighty-three per cent [of pet owners] refer to themselves as their pet's mom or dad" (p. 48).

Social Catalysts

Camp's research (2001) identified themes including a greater likelihood to have fun, increased community participation, personal skill development, and social contact as a result of dog ownership. Messent (1983) found that, even when walking in an unfamiliar location, the company of a dog notably increases the probability of interaction between a stranger and the dog owner and increases human interaction. Veevers (1985)

found that companion animals provide a medium of expression for the personality and preferences of the owner, for example think of Paris Hilton and her late Chihuahua, *Tinkerbell*. When walking a dog around the neighborhood, people often stop to ask about the dog and pet or play with the dog. This allows the dog owner the opportunity to interact and get to know the neighbors in an easier way.

Owners who bring their dogs to the dog park have an additional avenue for socialization (Camp, 2001). At most dog parks the owners will sit together and socialize while the dogs will run and play together. The common bond is dogs, owners share stories, laugh, and socialize over the common ground of dog ownership. Most dog parks have separate sections for large and small dogs; this breaks down the group further into similar interests and preferences as observed by the researcher and demonstrated through the document analysis.

Physiological

Just a modest action of petting an animal promotes relaxation by lessening blood pressure (Nagengast, Baun, Megel, & Leibowitz, 1997) and raising outlying skin temperature (Velde, Cipriani, & Fisher, 2005). The relaxation is reportedly accurate in both children and adults (Trivedi & Perl, 1995). Charnetski, Riggers, and Brennan (2004) demonstrated that petting a dog had a positive effect on immune system function, as measured by Immunoglobin A (IgA). The results from Odendaal's (2000) study suggested that physiological effects could be achieved within five and 24 minutes of positive dog interaction. Zilcha-Mano, Mikulincer, and Shaver, (2012) found that when compared to no pet presence, the quantity of life goals created and self-confidence in goal achievement increased by physical or even cognitive pet presence.

Chinner and Dalziel (1991) studied the interactions of a poodle with 18 terminally ill patients. The poodle seemed to facilitate staff–patient connections, relieve patient–visitor relations, and advance staff and patient morale. The positive effects of dogs with non-terminal illnesses have also been studied. One example focused on patients with heart failure and the findings of the dog intervention demonstrated a great decrease from the baseline in anxiety and epinephrine levels (Cole, Gawlinski, Steers, & Kotleman, 2007). Another study focused on the elderly using a control and test (pet) group, demonstrated an affirmative effect of pet therapy intervention on the Geriatric Depression Scale and most also reported an enhancement on their perceived quality of life (Moretti et al., 2011). In researching pet therapy, the findings are consistent across many studies that pet therapy is effective in improving symptoms and cognitive functions.

Dogs also heal medically through their senses. Dogs smelling ability is 100,000 times stronger than humans because dogs have 25 times more smell receptors. The brain of a dog is controlled by the smell or olfactory cortex, which is roughly 40 times larger than that of a human (Buszewski et.al., 2012). The chemicals released from malignant tissue are different from normal tissue, and dogs can detect these differences. In 2011 a Labrador retriever correctly identified 97% of stool samples and 91% of breath samples from patients with colon cancer (Horowitz, 2010). Dogs have a high success rate at sniffing out low blood sugar by detecting subtle variations related with low blood glucose and signal the individual to the problem. Dogs have even been reported to predict seizures. Doctors haven't been able to explain it, but some patients with epilepsy report that their dogs are able to notify them when a seizure is pending. The dogs reportedly

would tug on the owner until they got the owner down on the ground so they would be safer if they fell during the seizure (McNeil, 2006).

Many patients have also reported through interviews or anecdotal stories that their dog saved their life by continually pawing at, sniffing, or licking a particular area on their body. The continual attention to the spot encouraged the owners to visit a doctor and the results were cancer or a tumor in the area that the dog identified. The dog serves as the catalyst, encouraging an owner to visit a doctor and proceed with testing.

Psychological

Beck and Katcher (1996) presented the following research results: pet owners talk to their pets as if they were people and the manner in which people speak to birds, cats, and dogs resembles the manner in which people talk to infants. Dogs can coax smiles and words out of socially withdrawn institutionalized patients of all ages. Dogs can help psychotherapy advance faster. In carefully controlled studies interaction with dogs and nature can decrease symptoms of Attention Deficit/Hyperactivity Disorder (ADHD) children. Shiloh, Sorek, and Terkel (2003) suggested an "attentional shift hypothesis," (p. 387) in which pets distract attention from an anxiety-generating stimulus, helping alleviate the anxiety. A relationship with pets can decrease stress, depression, anxiety, and loneliness and increase self-esteem and general psychological wellness (Martin, Farnum, & Farnum, 2002; Crawford, Worsham, & Swinehart, 2006). This is also used in helping veterans return to a more normal life with less medication for trauma-related anxieties.

Research has found that children developed a sense of security from a stuffed animal, animal companion, or fictional animal (Schaefer, 2002). Many have witnessed

first-hand the attachment children can form with a stuffed animal. At night, a young child may also receive comfort by embracing his stuffed dog, the semblance of a pet dog, or from his real pet dog sleeping by his bed (Martin et al., 2002). Therapy dogs are professional comforters who are brought in to help provide relief, reassurance, and comfort to individuals during stressful situations. Animal assisted therapies (AAT) can be found in the work of psychiatrists, school counselors, play therapists, occupational therapists, social workers, behaviorists and most other disciplines that serve clients with mental health and physical disability needs (Mallon, 1992). The dog helps to neutralize the situation and engages in a relationship with the patient.

Dogs first materialized into therapy sessions of the United States when a clinical psychologist, Boris Levinson, inadvertently noticed a positive improvement in his patients when his dog was present in the patient's sessions. Although the community initially scorned this, Levinson was persistent in sharing his findings and between the 1960's and 1980's dogs and cats were used in therapy by many other clinicians (Beck & Katcher, 1996).

Today, animal-assisted therapy (AAT) is often used with the elderly because of the dramatic decrease in depression and loneliness, and lowering of blood pressure. AAT is used with children as the animal serves as an equalizer, allowing the child to gain control in any given situation. In college-aged adults, AAT is used as an intervention for stress, anxiety, and depression (Armour, 2012). There are now many laws in place regarding service and comfort animals on college campuses. These laws include the Americans with Disabilities Act, Section 504, the federal Fair Housing Act, Equal Employment Opportunity Commission, Department Of Education and Department Of

Justice regulations. Many state and local laws, ordinances, and regulations are also in place for students and employees to bring animals on campus at higher education institutions to use as service dogs. Students with Tourette's Syndrome, autism, physical disabilities, etc. can benefit from having a service companion.

To help the city of Orlando during the most devastating mass shooting during June of 2016, teams of specially trained emotional support dogs were deployed from across the country to help the people who were affected by this act of terror. The dogs have inviting qualities that allow victims of a tragedy to feel safe: they listen without judgment and respect confidentiality as exemplified by the witnessed account quoted below. One interaction in Orlando exemplified the healing power of these canines. Tim Hetzner, the president of the K-9 comfort dogs organization described a young man who invited his out-of-town friend to Pulse nightclub. The friend died in the shootout, leaving the young man plagued by guilt and regret. Hetzer describes his observations of the young man suffering internally:

> "He didn't talk to anyone, he just stood there. And then slowly, he got down and started petting the dog... And then he started asking one or two questions about the dog, and then said, 'You know, I lost my friend.' And then he explained what had happened." (Boccagno, 2016)

Though the K-9 comfort dogs cannot undo dark memories of the past, they are able to lessen the shadow and open dialogue, allowing individuals to process what happened.

Chapter Summary

The literature review provided a historical overview of the human canine relationship in America as well as the benefits. Dogs have transitioned from tied up

outside to sleeping side by side in their owner's beds. The positive effects of the human canine relationship are widespread. Therefore, topics in this chapter included: community education, adult learning, human-canine bond, military dogs, economic impact of dog ownership, evolution of human-canine relationship, physical benefits, family interaction, social catalysts, physiological, and psychological benefits.

CHAPTER 3. METHODOLOGY

The purpose of this mixed methods study is to describe the current state of dog safety community education in Florida and to propose policies and procedures for dog safety community education for adults, if needed based on the research. This section describes the research design, participants, instrumentation, data collection, sampling, and a description of the data analysis that was used to answer the research questions. All processes were integrated to answer the following research questions:

RQ 1: What reasons, do dog owners state for their need for a dog?

RQ 2: How does the literature compare to the survey results on value of dogs to their owners (i.e., physical, physiological, psychological, social, family interaction, social catalyst)?

RQ 3: What ranking, on a sliding scale, do the current dog owners place on the value of their dogs? (9-10 Highest to 01-Lowest)

RQ 4: Do current dog owners see a value in the creation of dog safety community education?

RQ 5: What community education programs, if any, need to be in place regarding dog safety?

RQ 6: What do professionals working with dogs (veterinarians, police officers, fire fighters, humane societies, and obedience schools) believe the importance of canine safety education to be?

Research Design

There are two primary methods of research: qualitative and quantitative. Qualitative methods uncover new perspectives while quantitative methods demonstrate trends (Creswell, 2013). These methods can be used separately or together. Mixed methodology is appropriate for this study because the researcher is concerned with understanding the value individuals place on their dogs as well as the current state of dog safety community education programs.

Qualitative and quantitative data was gathered at the same time and integrated to better understand the problem. Specifically, a parsimonious concurrent mixed methods design (Creswell, 2013) was best for this research. Data was triangulated in order to verify meaning and provide validity to results by collecting different perspectives through varying methods (Patton, 2002). The benefit of this research design was that both qualitative and quantitative research, in combination, a better understanding of the research problem than either research approach alone.

Survey data was collected from participants own constructed realities and interpretations of their experiences (Merriam, 2009). This provides participants to provide honest, personal answers without judgment or influence. Survey research is efficient because the data collection is finished after one contact (Salkind, 2009) and is effective at gathering information from a large sample of participants at the same time (Gall, Gall, & Borg, 2007). The survey contains 13 closed-ended questions. Scaled or ranked items, commonly used in surveys, (Gay, Mills, & Airasian, 2011) are used in this survey.

Collecting data from key informants was the method chosen for the ten interviews

for this project. The researcher's committee felt 10 interviews were sufficient to solicit confirming or disaffirming information from the interviewees. According to Creswell (2013) purposeful sampling selects participants because of some characteristic; in this case the characteristic is the individual's profession in relation to dogs. This method was chosen because key informants typically have the closest contact with the population of interest and are expected to know what needs are going unmet. Data collected from key informants can be weighed against data obtained from indicator data and vice versa. This weight is obtained by dividing the population percentage by the corresponding response percentage.

Document analysis was collected from public community resources throughout the United States and particularly within the state of Florida. Document content analysis is useful when the topic being studied is fragmented or in cases where previous studies are limited (Elo & Kyngas, 2008). Documents from facilities across the nation and state were reviewed to see the perceived value of dog ownership and canine safety as stated on materials available. Documents include pet safety training informational pages, pricing sheets, and training outlines from websites and community newspapers.

Participants

The 150 participants were community members of the state of Florida who were also dog owners. The site was selected because Florida was the state where the researcher lives and attends school at Florida Atlantic University; it is also the state where the dog tragedy that inspired this research topic occurred. Participants were over the age of 18 and were recruited through a Florida based Parks and Recreation department, as well as posts on social media through researcher's Facebook account, and online animal

community resources through researcher's social media network (i.e.: Dr. Angel's Compassionate Care Centers, Stray No More, and Mar E Sol Dog Ranch). The primary research setting was the Florida community and the primary research method was email. An email invitation was sent to participants, who accessed the survey electronically through a web link. All participants were guaranteed anonymity and their participation was voluntary. All participants gave consent prior to entering the survey and could withdraw from the study at any time without consequence.

Instrumentation

Research instruments are tools for collecting data (Gay et al, 2011). This study utilized three tools: a survey, an interview protocol, and a document analysis tool. The survey for this research study was designed by the researcher and contains 13 questions. The survey was vetted for construct validity and the final version includes multiple choice, yes/no questions, and Likert scales. The survey sought to obtain descriptive statistics about the dog owners in Florida. Participants accessed the survey online from a link sent through an email or social media post. The Uniform Resource Locator link lead to the survey online through Survey Monkey and provided anonymity to the participants. The interview protocol was developed by the researcher and contained four questions as well as probing questions. The interview asked four open-ended questions and guaranteed anonymity to the ten pet professional participants. The document summary guide was used to identify pertinent training materials that may or may not exist for this purpose. Relevant public documents from public, nonprofit, and municipality facilities across the nation and state of Florida were reviewed to see the perceived value of dog ownership and dog safety community education as stated on materials available.

Data Collection

The six research questions for this project and the methods to address each questions are outlined below.

To address RQ 1, on why people elect to become dog owners, the researcher conducted a comprehensive needs assessment through an online survey. In this case dog owners in the state of Florida were eligible to participate.

To address RQ 2, on the comparison of pet dog's value, the researcher conducted a document analysis. Documents from facilities across the country were reviewed to see the perceived value of dog ownership and dog safety community education as stated on materials available.

To address RQ 3 and RQ 4, on the value dog owners place on their pet dogs, and the value of proposing dog safety community education, the researcher collected information from the needs assessment online survey. A needs assessment is a systematic process for determining gaps between the current conditions and the desired conditions.

To address RQ 5, the current state of dog safety education, a document analysis was conducted. This is a systematic procedure for reviewing or evaluating documents, both printed and electronic (computer-based and Internet-transmitted) material. Documents included dog safety training informational pages, pricing sheets, and training outlines from community newspapers, websites and current literature.

To address RQ 6, a key informant approach was used to select 10 participants to interview from specific people who are identified as having extensive knowledge within a particular domain. For this study two veterinarians, two police officers, two fire fighters, two obedience school teachers, and two animal shelters were interviewed.

Sampling Procedures

Permission to work with human participants was obtained from the university's Institutional Review Board (IRB). Upon approval from the IRB, the experimenter solicited participants via a Florida based Parks and Recreation department as well as social media community resources. The consent form contained a brief description of the study. The needs assessment was conducted through survey monkey and then analyzed.

The sample size was determined by using the pet ownership calculator (American Veterinary Medical Association, 2007) to estimate the number of dog-owning households in Florida. The number of occupied households in Florida (7,217,508) (U.S. Census Bureau, 2016) multiplied by .365 (percentage of households with dogs in Florida) totaling 2,634,390 estimated households with dogs in the state. With a 95% confidence level, and a confidence interval of 8, the necessary sample size is 150.

In this case, the national percentage was replaced with the percentage for the state of Florida. However, the state estimates have a greater degree of statistical error associated with them than the national estimates. Therefore, without additional analysis, it is undetermined whether an estimate for the number of pet-owning households in the community will be more accurate by using the national estimates or state estimates. (American Veterinary Medical Association, 2016)

Survey

On the quantitative side, numeric data was collected through surveys. The instrument, developed by the researcher, was tested for construct validity, to ensure the intended interpretation of questions posed by different participants. Five, college educated Floridian dog owners tested the survey, timed themselves, and provided

feedback. Edits were made based on the feedback from the content validity check including eliminating certain demographics and quantifying the multiple choice questions. The survey was approved for face validity by the researcher's dissertation committee. The instrument was pilot-tested for content validity. The pilot test consisted of five colleagues taking the survey, timing their experience to complete the survey, and providing feedback. The pilot test was completed to ensure the intended interpretation of questions posed by different participants and the items measure what they are intended to measure. Internal consistency was checked and based on IRB feedback, the survey was revised.

The advantages of an online survey are that it is generally low cost, has a simple, easy to use design, and facilitates the input from key people. The disadvantages of an online survey are that key informants may not be representative of the actual community of interest and may have vested interests and define needs differently (Posavac & Carey, 1997). Every attempt was made to ensure the people asked to answer the survey represented a significant vice to the process.

The surveys were administered through email from a Florida based Parks & Recreation Department, as well as social media posts through researcher's Facebook account, and online animal community resources through researcher's social media network (i.e.: Dr. Angel's Compassionate Care Centers, Stray No More, and Mar E Sol Dog Ranch). The survey platform was SurveyMonkey to collect the data from the dog owners. Buchanan and Hvizdak (2009) noted the advantages to web surveys including the convenience of on demand access 24 hours a day and seven days a week, and the data is saved automatically. A main disadvantage to a web survey is interviewer absence, the

researcher is not able to observe nonverbal cues, or to ask follow up questions to expand more. This instrument titled "Why Do You Own a Dog?", as listed in Appendix A, contains 13 questions and expected to take no more than five minutes. All participants remained anonymous and their responses did not include their names. Survey questions included multiple choice, check all that apply, yes/no, and Likert scales. For the Likert scale questions, an ordinal scale was presented for respondents to rank the rate or degree to which they agree or disagree with the statement. The numbers on the scale went up to 10 and represented an increase in the degree to which the participant agrees with the statement presented.

Interviews

Individual semi-structured open-ended phone interviews were conducted in order to elicit an in depth, detailed account of the recruited participants' experiences. Content validity was performed and ten interviews were conducted because the researcher was concerned with understanding the viewpoints of the participants in their natural setting (LeCompte & Schensul, 1999). According to Crewell (2013) purposeful sampling selects participants because of some characteristic; the ten interviewees were selected because they are professionals dealing with pets and include veterinarians, humane societies, dog obedience schools, police officers, and fire fighters. The problem was examined in a natural setting and data was collected from participants' own constructed realities and interpretations of their experiences (Merriam, 2009).

Due to the geographic location of participants across the state of Florida, interviews were conducted over the phone. Each interview lasted approximately 10 minutes and was audio-recorded with permission granted, transcribed, and studied to

derive common themes to help the researcher describe value these key informants place on pet safety in the community. To assure validity in the interviews, the researcher talked little and listened a lot. An interview protocol established with open-ended questions to guide the interview and answer the research question is included in appendix F. Open ended questions are questions that cannot be answered by a simple yes or no. Interview questions were devised to elicit a detailed and unambiguous response, as well as collect descriptive data that would underscore the purpose statement and support the research questions of this study. Most essential, the interview questions were designed to support the purpose statement by identifying factors that most significantly contributed to the current and potential future state of dog safety community education. Probes for each question were included in the interview protocol.

The researcher remained in a neutral demeanor to not influence the respondent. Since the interviews were conducted over the phone, the body language of the interviewer did not impact the interviewee. Member checking was conducted to ensure accuracy of recorded or written comments of participants. An audit trail was also maintained by the researcher throughout the process to ensure everything was context-bound. Peer debriefing through another reviewer was used to reflect on the research as well.

Document Analysis

In addition to the survey and interviews addressed, document analysis was conducted by the researcher to identify pertinent dog safety community education and training material that may or may not exist for this purpose. Relevant public documents from facilities across the nation and state of Florida were reviewed to see the perceived

value of dog ownership and canine safety education. These documents included local newspapers, community posts, city websites, and senior citizen center information centers. Data collection includes the availability of trainings, training platform, and cost of attendance.

Data Analysis

Data was analyzed immediately after collection. The survey data was analysed with descriptive statistics and a chi squared test. A chi-squared test "examines the shape of the entire frequency distribtions for each group" (Dictker & Roznowski, 199, p.216). Excell was used to get summated ratings and find tendencies. Based on percentages of the respondents, the descriptive statistics are reported in chapter four. Figure 4 represents the respondents dog ownership frequency.

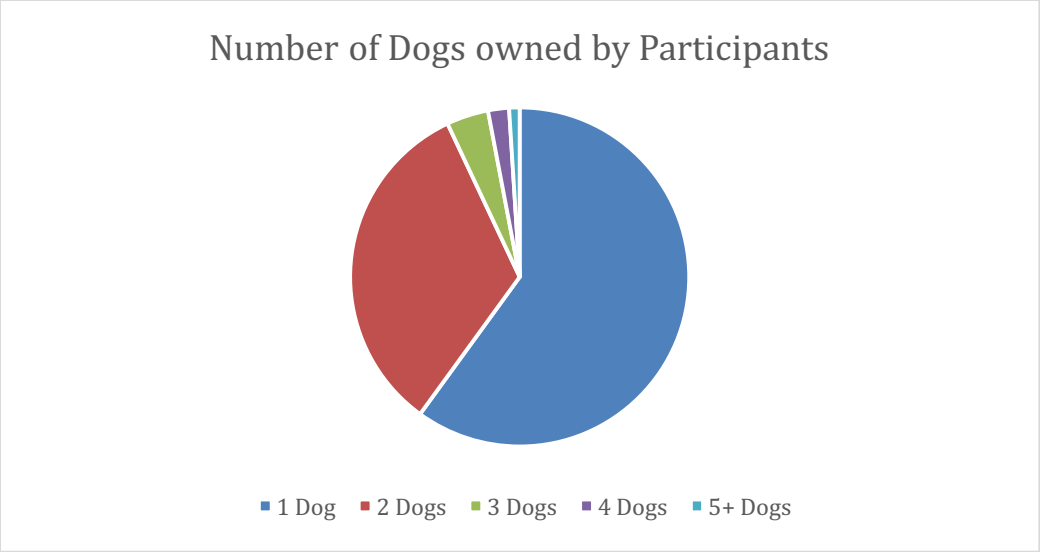

Figure 4. Number of dogs owned by participants.

For the qualitative data, the researcher recorded interviews using hand written notes and an audio recorder. Recordings were transcribed and member checking was

conducted, allowing for respondents to make corrections when necessary. This helped to validate the emerging findings (Merriam, 2009). Merriam (2009) explained coding as the process of making notations next to the items that seem relevant. The researcher started with open coding, then analytical coding to group the open codes into categorical aggregation. Once the categories were derived, all of the coded data was sorted into categories (Merriam, 2009). Finally, the categories were used for interpretation.

The documents were reviewed and compared and contrasted to the findings from the surveys and interviews to produce a composite model. Methodological rigor and validity were attained through the use of multiple and different sources of data (triangulation), and through the acknowledgement of the researcher's biases (bracketing) (Creswell, 2013). Variation in data collection lead to greater validity as it reduced any pre-existing assumptions, reduced gaps to the data collected, and answered the research questions from multiple perspectives. The document review sheet is included in the appendix G.

Significance

This study may provide insight into the need for dog safety community education and training. This research might form the future policy recommendations to reduce the number of preventable animal tragedies by providing the highest quality community education to dog lovers everywhere, giving them the tools and confidence to manage life-threatening dog emergencies.

Chapter Summary

The research design for this study was a mixed methods approach. A sample of 150 dog owners in the state of Florida provided the information that was analyzed.

Document analysis was also conducted by reviewing public dog safety documents. Individual interviews with 10 professionals whose careers interact with dog and dog safety were conducted to gain insight to compare to the findings from the surveys and document analysis. Data analysis followed these steps: transcribe interviews, pre code to detect patterns. Once patterns emerged, content analysis to examine the material for emerging themes. Simultaneously, documents were collected and coded for patterns. The survey data was analysed with descriptive statistics and a chi squared test.

CHAPTER 4. FINDINGS

Introduction

This mixed methods study sought to describe the current state of dog safety community education in Florida and to propose policies and procedures for dog safety community education for adults, if needed based on the research. Research questions were guided by and focused on identifying the current state of dog safety community education.

Total participants for survey and interviews

There were 150 participants for the online survey, and 10 participants for the interviews. Each participant for the survey has or had a dog, lives in the state of Florida and is over the age of 18. Each of the 10 survey participants have applicable professions where they interact with dogs in the Florida community. 150 surveys were collected, all were complete and all were used for this study.

Quantitative survey question results

Microsoft Excel was used to assess the quantitative data from the survey responses to create frequencies for variables. The quantitative data was run by separating question type. Questions were either *1-10 point Likert scale questions, check all that apply*, or *yes/no*. The following survey questions guided the quantitative portion of the study:

Question 1

Question 1, “How many dogs do you own currently” asked participants to select from the options 1-more than 6, with an options to write in the number of dogs previously owned. 100% of participants own/owned at least one dog. The majority of participants of this survey (60%) own one dog. Followed sequentially, 33% own 2, 4% own 3, 2% own 4, less than 1% own 5 or more dogs.

Question 2

Question 2, “How many hours do you spend each week caring for your dog(s)” asked participants to type in their numerical answer. Responses ranged from 1-168 hours per week. The majority of respondents (50) answered between 1-10 hours of care per week. The second most popular answer was between 11-20 hours per week, with 38 respondents. Following behind is 21-30 hours per week with 18 responses. Next is 31-40 hours per week with 11 responses, and 41-50 hours with 6 responses. 10 participants care for their dogs between 51-100 hours each week, specifically, 51-60 hours per week had 4 respondents, 61-70 hours had 1, 71-80 had 3 responses, 91-100 hours had two respondents. Six respondents care for dogs over 100 hours per week. Eleven participants did not provide a numeric answer but responses trended toward as much as possible, examples include: “All day, 24/7, lots, infinite, always, uncountable just like children.”

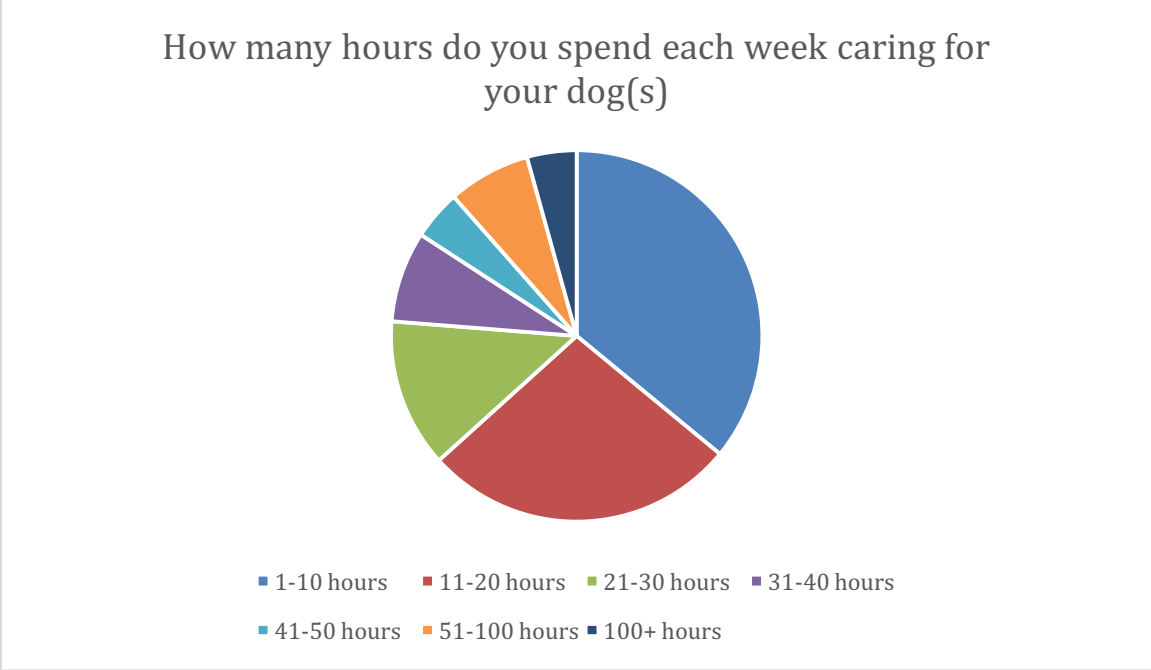

Figure 5. Hours spent caring for dog(s) each week.

Question 3

Question 3 asks what reasons do you have for owning a pet dog, participants are asked to check all that apply. 94% of participants selected companionship as a reason they have for owning a dog, this was followed by 60% of participants who own a dog for social reasons and 57% who own a dog for family interaction. Figure 6 depicts the responses to this question. 17 respondents selected other, and wrote in the following answers: 4 answered to give them a home, 7 answered because they just love dogs, and 1 answered that they own a dog because they needed a service animal.

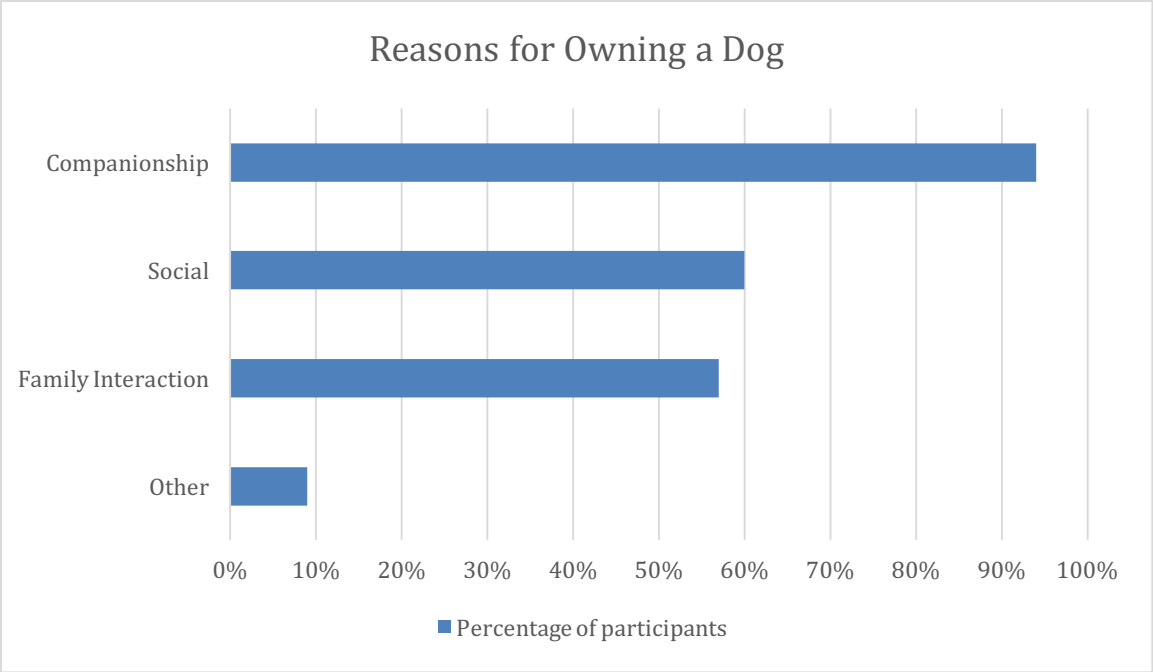

Figure 6. Reasons for owning a dog.

Question 4

Question 4 asked participants if they see value in dog safety community education for dog owners, this was presented on a Likert scale ranging from 1-10, with one being no value and 10 being high value. The average score was over 8, demonstrating that the majority of participants believe there was a value to dog safety community education. Looking at the polarity of this scale, the lean was concentrated towards the right with higher ratings, above the neutral/no opinion answer of 5.

Question 5

Question 5 asked, “have you or someone you know experienced a dog-related emergency or tragedy”. This was a yes/no question with an option to describe the emergency. 65% of respondents selected “yes”; they have experienced or know someone has experienced a dog-related emergency.

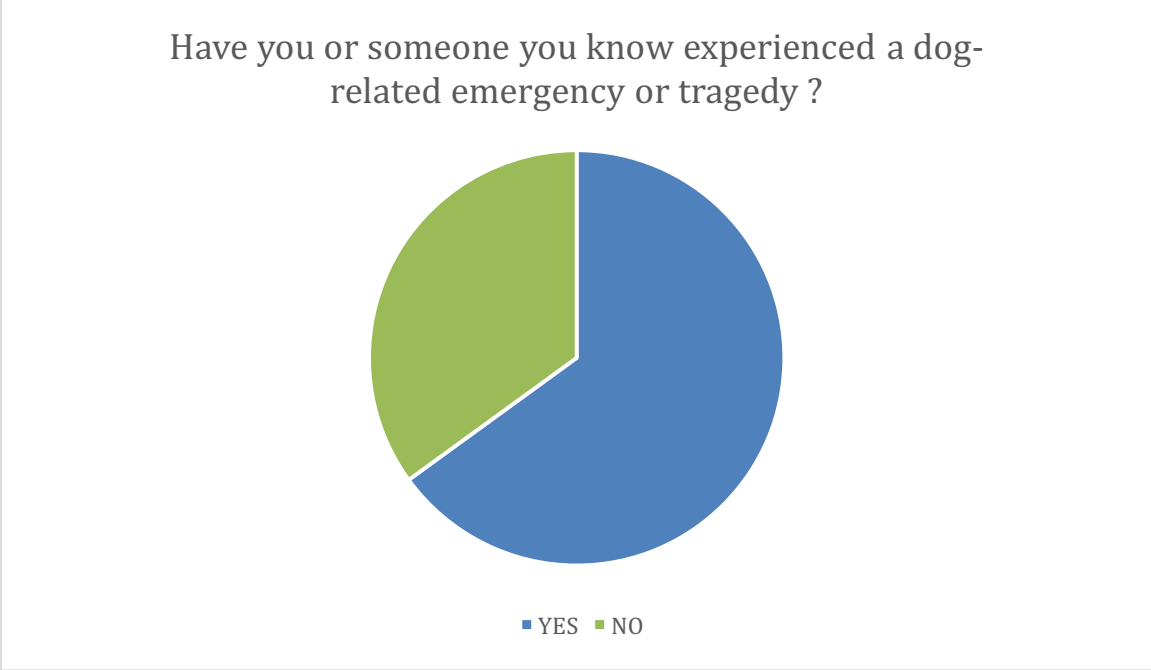

Figure 7. Experience of dog-related tragedy.

Of the 97 participants who answered "yes", 87 of them expanded on their experience in the comments section, unfortunately 43 of the responses described devastating and fatal dog emergencies. Here are a few excerpts:

> "My dog is 8 years old and had interaction with a poisonous toad. This situation was not fatal, but severe health concerns escalated rapidly. I immediately googled what to do in this situation because I was completely uneducated."

This quote demonstrates the profound effect a dog loss can have on a family:

> "Our family's first dog passed away in an unusual circumstance. He was three years old. He was at the groomer, and when someone opened the door, he ran out and headed towards a major street. My mother chased after him and ran in the street but he was unfortunately hit by a car. My mother had to rush him to the hospital, but it was too late. We all gathered at the hospital and mourned. It was a

devastating loss for our family, and my mother was impacted greatly as she wanted to take the blame, even though it was a complete accident."

This quote demonstrates several educational opportunities that could have prevented these incidences from occurring, including poisonous animal and lease precautions:

"Mother in laws dog bit a frog… dog was about five years old, she took her to nearest pet hospital ER, non-fatal. …Sister & brother in laws dog chocked from his collar getting stuck on the fence, they called for emergency help but it was fatal."

This quote demonstrates that even within the same family dog tragedy can occur on more than one occasion:

"Three occasions. 1st : our 1 year old pit-bull lab mix was eaten by an alligator in 2006. The death was instant. We called alligator control that removed and killed the gator. 2nd : my mom accidentally ran over our 15 year old Doberman's leg. Unfortunately we had to put her down due to her old age and impossible recovery. 3rd: our German Shepard had liver cancer which spread everywhere in her body and eventually killed her. When we noticed abnormal behavior we called the vet who informed us of her diagnosis. We then were informed that we should put her down because she only has a week left to live. However we decided to let her live her life out and she went peacefully 2 months later."

This quote is an example of a participant's experience with the local fire department not having the knowledge and training to assist a dog owner in an emergency:

"My two year old dog had a seizure and I did not know how to help nor did my local fire dept. He passed away by the time I got him to the vet."

Question 6

Question six asks what dog safety precautions are you currently aware of, check all that apply. Nearly all (98%) of respondents are aware of flea, heartworm and tick precautions. Most participants were also aware of dangerous foods to avoid (91%), heat safety (89%), poisonous animals and pants (83%). Less participants (56%) were aware of collar danger, and only 2 participants mentioned leash laws specifically, 1 mentioned choking hazards.

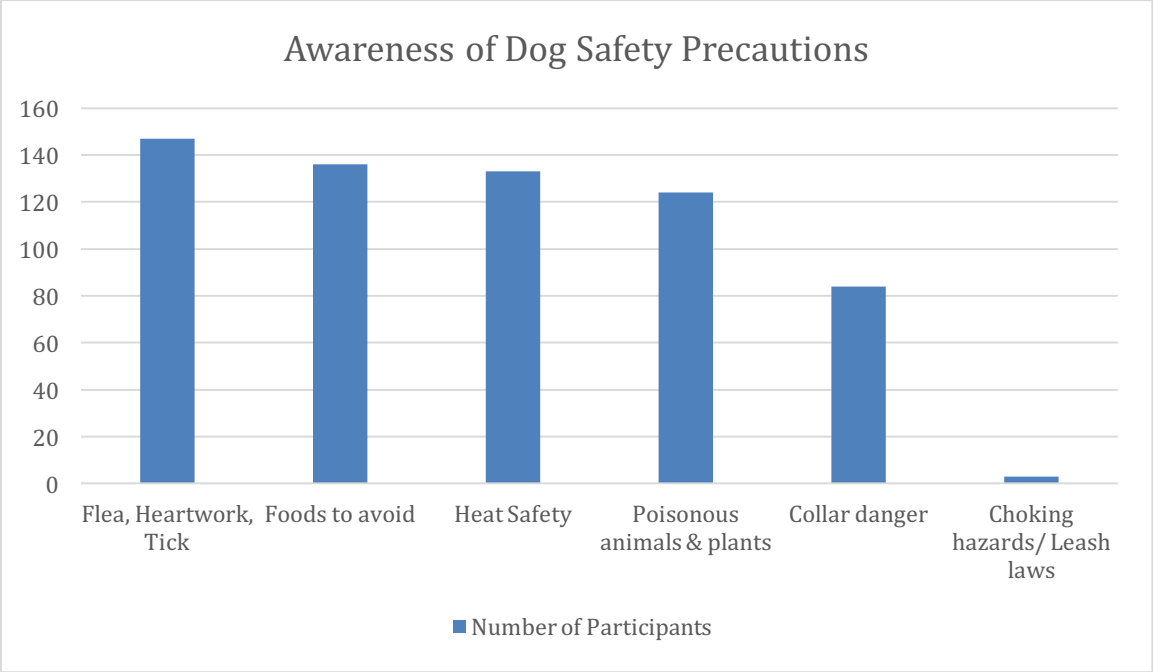

Figure 8. Awareness of Dog Safety Precautions.

Question 7

Question seven asks on a scale of 1-10 how much value do you place on your day, with level of importance in your life set at 1 for the lowest to 10 as the highest. The average answer was significantly high at 9.5 out of 10. The lowest score was a single 4, followed

by 7 through 10 ratings. Looking at the polarity of this scale, the lean was concentrated towards the right with higher ratings, with all but one above the middle score of 5, which is a neutral place mark.

Question 8

Question eight asks in an emergency situation where a dog's life is in danger, do you feel you have adequate knowledge and skills to assist the dog in the emergency. The most common answer with 51% of participants was "not sure." Second, was "no" from 26% of respondents and last was "yes" 23% of respondents felt they do have adequate knowledge and skills to assist a dog in an emergency. A take away is that a combined 74% of participants felt that they currently do not confidently have the knowledge and skills to assist a dog in an emergency. It's possible that the 23% of respondents who answered that they do have adequate knowledge and skills are professionals in the dog field, as many were invited to participate in this survey.

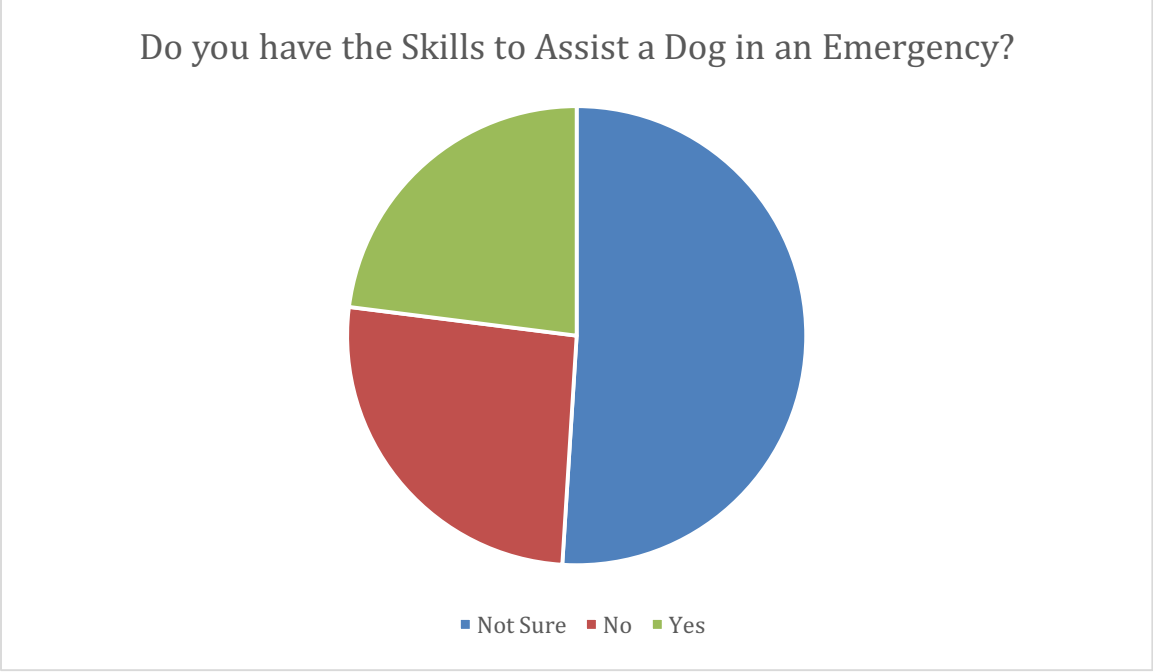

Figure 9. Do you have the skills to assist a dog in an emergency?

Question 9

Question nine asked, "What would you need to confidently manage a dog emergency, select all that applies". The majority of participants (73%) responded that they need tactical training (i.e., pet CPR, wound care, chocking dislodging). This is followed by 60% of participants who responded that they would need dog safety education (i.e.: prevention tips and management) and 53% of respondents would need help from a medical professional. Only 6% of respondents answered that they need nothing because they have adequate knowledge and training. This leaves the majority of 94% of respondents who would need some form of intervention to manage a dog emergency as depicted in Figure 10.

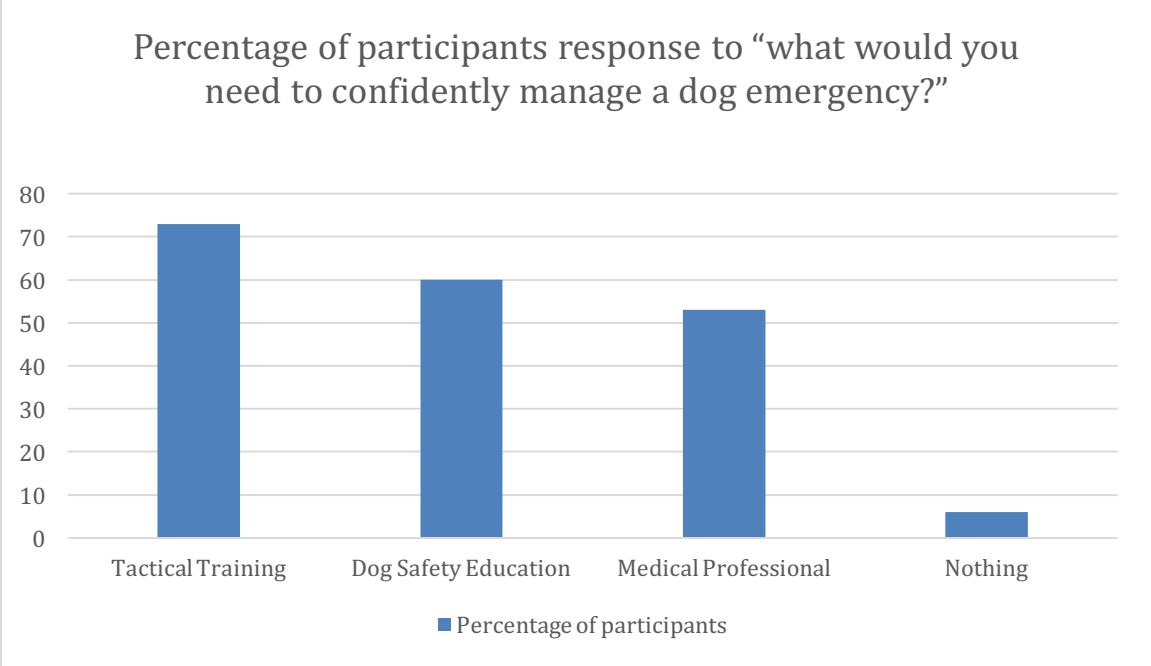

Figure 10. Percentage of participants' response to "what would you need to confidently manage a dog emergency?"

Question 10

Question ten asked what is the best way to receive information about dog safety and asks respondents to check all that apply. The majority of respondents (68%) answered that the best way to receive information about dog safety is from the veterinarian, followed by websites at 60%, personal interaction and email at 55%. Just under at 48% responded was web based training was appropriated, followed by brochures and pamphlets at 35% and newsletters at 23%.

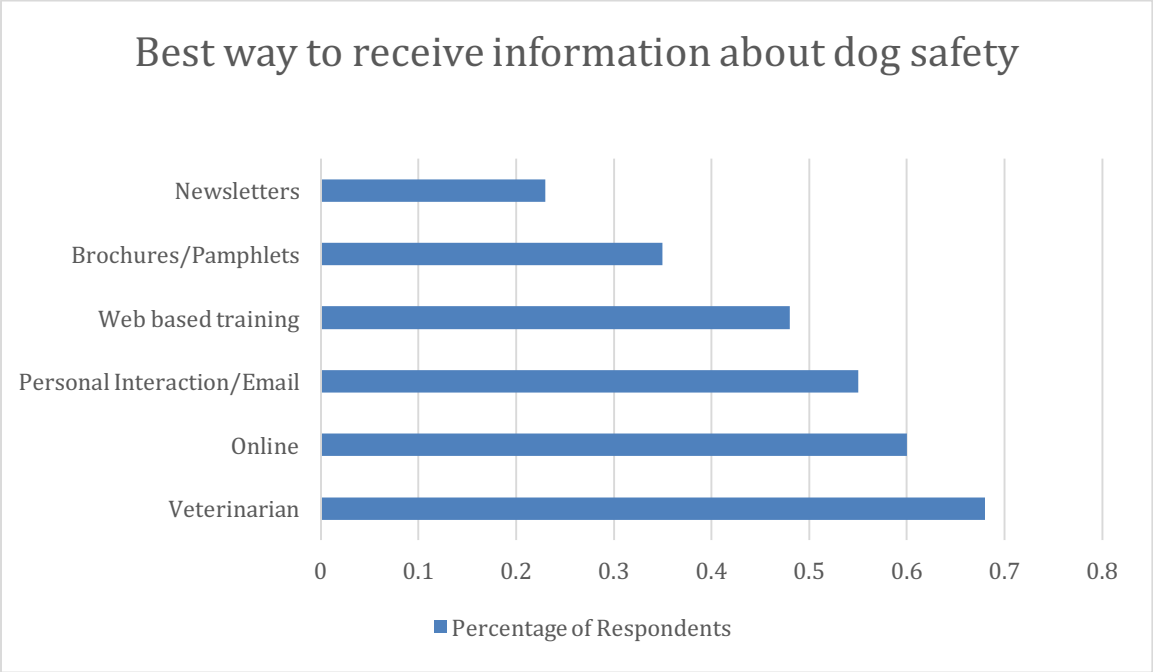

Figure 11. Best way to receive information about dog safety.

Question 11

Question eleven asked "do you want your town to offer dog safety education to its community members". A strong 77% of participants answered yes they do, while only 2% answered no. 21% of participants had "no opinion".

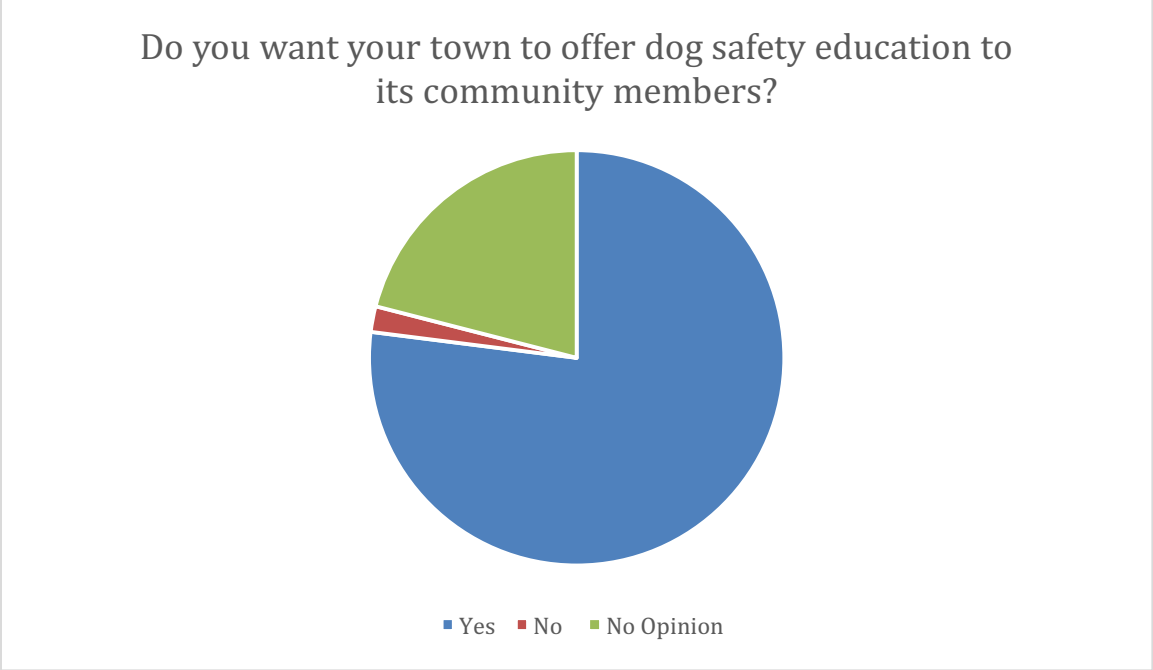

Figure 12. Do you want your town to offer dog safety education to its community members?

Question 12

Question twelve asked "do you think it would be beneficial for emergency response professionals to participate in dog safety education", this was a yes or no question. 93% of participants said "yes" they think it would be beneficial for emergency response professionals (i.e., first responders, firefighters, police officers) to participate in dog safety education. Only 7% of participants answered "no".

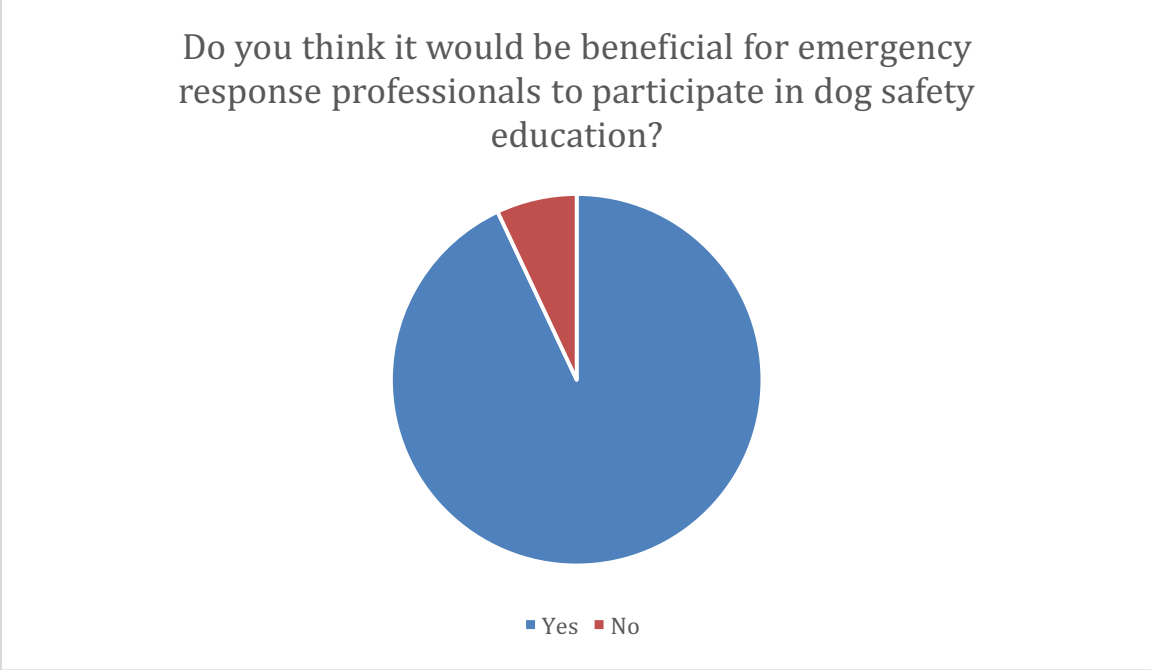

Figure 13. Do you think it would be beneficial for emergency response professionals to participate in dog safety education?

74 participants added comments into the optional field, these include the following excerpts:

> "The professionals that we call we expect to respond to our emergencies. Too many people have experienced disappointment when the 911 operators basically hang up on them and tell them to call a vet instead of providing assistance. And if you are lucky enough to get an ambulance to the scene, most EMTs or first responders don't know how to manage dog emergencies, because they aren't trained on it."

This quote demonstrates one respondent's strong opinion towards emergency response professionals providing the same care for pets as they do for humans:

> "Most dog owners look at their pet as a very important part of their family, so if we can confidently call 911 for an emergency of a loved one, we should be able to

do the same in the situation where a dog is in an emergency situation and feel just as confident the responders will know how to handle any given situation"

Question 13

Question thirteen asked "how much time would you commit to participating in dog safety community education". The majority (52%) of respondents answered that they would commit 1-2 hours to dog safety community education. This is followed by 19% of participants who would commit 3-6 hours, 17% who would commit less than 1 hour and 11% would commit over six hours to participating in the education platform.

Question 14

Question fourteen, an optional question, asked participants to enter their email address if they would like to receive the results of this study or information about upcoming dog education trainings. 57 participants opted in to this question and would like additional information about the topic.

Qualitative analysis of open-ended questions for dog professionals

Table 1 captures the categorical answers for each question separated by participant by occupation.

Table 1.

Professionals answers to interview questions.

Participant	Question 1 "What types of dog emergency/safety training are you aware of?"	Question 2 "Why is the dog emergency/safety training conducted/not conducted?"	Question 3 "Would you support a dog emergency/safety training?"	Question 4 "How much support do you think a dog emergency/safety training would receive from community officials?"
Police Officer	Not aware	Not conducted, not enough support or interest	Yes (if privately funded)	Little/ Some
Police Officer	Not aware	Not conducted, not enough support or interest	Yes	Little/ Some
Veterinarian	Not aware (Former pet CPR for public was cancelled)	Not conducted, not enough support or interest	Yes	Little/ Some
Veterinarian	Not aware (Former pet CPR for public was cancelled)	Not conducted, not enough support or interest	Yes	Little/ Some
Firefighter	Not aware	Not conducted, not enough support or interest	Yes	Little/ Some
Firefighter	Not aware	Not conducted, not enough support or interest	Yes	Support

Dog Trainer	Aware SPCA	Not conducted, not enough support or interest	Yes	Little/Some
Dog Trainer	Aware Catdogs.org	Not conducted, not enough support or interest	Yes	Support
Humane Society	Aware Own work, Saving Wonderful Animals (SWA), Kiwanis K Kids, Animal Safety is Fun, AKC, ASUS, PAWS to read, the work of Dennis Suetco and South Florida Humane Societies.	Conducted, Humane education law requires a minimum	Yes	Support
Humane Society	Aware Own work with the Humane Society	Conducted, Classes are vital to keep animals and people safe	Yes	Support

Qualitative interview question results

Question 1

Question one asked participants "What types of dog emergency/safety training are you aware of?" Four of the ten participants were aware of a dog safety education or training program, however the majority of participants (6) were not aware of any community education offerings on this topic making up the thematic finding for this question. One firefighter replied "It took a lot of research to find a first aid class when I

got my boxer but that program has been canceled." This demonstrates that even community professionals in the field who are actively searching for this type of education, are unaware of the existing offerings.

Question 2

Question two asked participants "Why is the dog emergency/safety training conducted/not conducted?" 8 participants answered this question based on why the safety training is not conducted and 100% of the answers followed the same theme, *there is not enough support or interest on this topic to justify the return*. The two participants who answered the question based on why the dog safety training is conducted were both humane society leaders. One responded that humane educations laws in schools require a minimum, however that is usually all that is met. The other participant responded "classes are of vital importance to keep animals and people safe."

Question 3

Question three asked participants, "Would you support a dog emergency/safety training? Why or why not?" All participants responded with an enthusiastic "yes" to this question. One police officer did provide a caveat in his answer, "Depends on the cost and who is funding it. If privately funded, yes. Government funded, no (pause) there is already a need for better programs to help citizens."

Question 4

Question four asked participants "How much support do you think dog emergency/safety training would receive from community officials?" 7 of the 10 respondents answered that the training would receive little/some support. 3 respondents felt more confident that the training would receive more support. These three respondents

included both humane society leaders and one dog obedience trainer. One optimistic response was "I think the officials are supportive and continuing to make progress. The HSBC worked to have an anti-chaining legislation passed in Broward County. Fifteen cities and recently the county passed a law that no dog will be chained for a long period of time. Enforcement is key!"

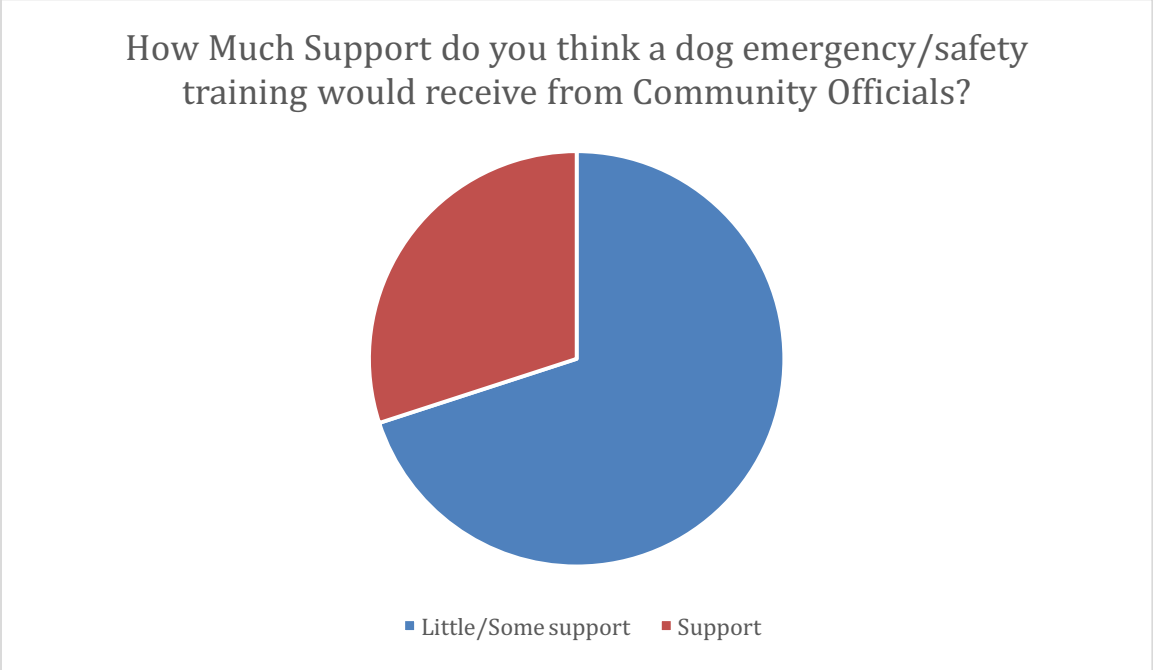

Figure 14. How much support do you think dog emergency/safety training would receive from community officials?

Across the interviews, a thematic finding was the optimistic outlook of the humane society leaders and dog obedience trainers on the topic of dog safety community education. Consistently across questions, answers from these two professions were closely aligned, while other professions provided a more cynical outlook.

Document Analysis

To understand the existing platforms of dog safety education, a document analysis was conducted. The researcher examined dog safety education and training options available at the state and national level. The findings, as displayed below are scarce.

Educational Opportunities

The pet safety educational opportunities available are primarily in the form of online training. While there are many organizations offering online training, they are not regulated, vetted, licensed, or certified in any way. They are simply small online businesses. There are three players in the dog safety education arena: PetTech, Basic Animal Rescue Training (BART), and Pet Emergency Education. Of the three main programs examined (Table B), the average length of time of the training is 4.6 hours. The average cost to the student is $123.33 with a low of $60 and a high of $125.

Table 2.

Educational opportunities for pet safety.

Company Name	Length of Training	Cost per student	Platform
PetTech	8 hours	$125	In-Person
Basic Animal Rescue Training (BART)	3 hours	$60	In-Person* *only for first responders
Pet Emergency Education	3 hours	$60	In- Person Online

The PetTech training offers a 1-day program that teaches pet CPR, First Aid, and emergency care. The cost to the student is around $125 for the 8-hour session. PetTech

has an interesting business model. They offer instructor training, a three-day workshop costing $1795. This allows an individual to become a PetTech Instructor, with this designation they are allowed to promote and advertise PetTech trainings and keep a percentage of the classes they host. PetTech is the widest spread of all other pet safety education programs, they have instructors across the country and advertise in appropriate areas such as dog obedience schools, veterinarians' offices, and pet shops. (PetTech, 2016)

BART stands for Basic Animal Rescue Training. BART courses satisfy the requirements of the Pets Evacuation and Transportation Standards (PETS) Act enacted by Congress in 2006. Because of this, the US Department of Homeland Security (DHS) has sanctioned both BART curriculums as state-sponsored courses. These classes are only offered to first responders; an everyday dog owner is not allowed to attend. All fire departments in Minnesota who receive BART training can now apply to have the cost of the course reimbursed by the Minnesota Board of Firefighter Training and Education. Classes are offered in person, as a three-hour course for around $60 per person. (Basic Animal Rescue Training, 2016)

Pet Emergency Education is an approved continuing education provider by the American Association of Veterinary State Boards and provides RACE approved continuing education. The course is three hours, in person and anyone is welcome to attend. The training includes a manual, and costs $60 for students who would like an e-manual and $85 for those who prefer a printed book. The organization also provides instructor education, free of cost with the purchase of an instructor kit, which ranges from $250-500. Pet Emergency Education offers an online training, they require

the students to email in a video of themselves performing CPR and other skills on a dog-mannequin as well as sending in a written essay before passing the training. (Pet Emergency Education, 2016)

The shortfall of these three educational opportunities is that there is no guarantee of the quality of the programs. There are dozens of other small online companies, offering online pet first aid and CPR training. None of which are regulated or certified by any reputable institution. The trainings last from four hours to 540 hours, with costs ranging from $20-$100 per student. These trainings are mostly offering tactical skills.

Big players in the CPR field for humans on a national level include the American Heart Association (heart.org) and The American Red Cross (redcross.org). Neither of these organizations offer pet or dog CPR. On March 14, 2016, the American Heart Association confirmed that they do not have pet CPR or First Aid offerings, and recommended the Red Cross as a resource. On the same afternoon, the American Red Cross confirmed that they did offer pet CPR in the past, but cancelled all courses due to low enrollment. They still sell their pet first aid books, and will continue to do so until their inventory sells out.

Community newspapers such as the *Palm Beach Community Educator*, *Boca Life,* and *The Parklander* were reviewed for areas of interest. Unfortunately, dog safety educational offerings were not advertised through community newspapers. However, in the *Palm Beach Community Educator Fall Catalog 2016*, two dog obedience classes are offered. Both classes are held one time each week in the evening on Thursdays for one and a half hours. The first class is 5 weeks long and costs $38, for puppies four months old or older and is held at Santaluces Community High School. The second class is 8

weeks long and costs $50, for puppies six months and older and it is held at the West Boca Community High School. Participants can register for either class online or in person.

Palm Beach County Humane Societies offer several opportunities for dog safety education as advertised online. Directors of many of these programs discussed the offerings in more detail. The Humane Society of Broward County has a very intricate "Animal Safety" program, which encompasses many areas. They start teaching and instilling the concepts at an early age and continue through adulthood, initiatives include:

A. How to read to an animal– teaching how to meet and greet animals in a safe way. Learning about their body language and what they are trying to communicate to us and acting accordingly. This lesson is taught on a simple level to small children and an advanced level to adults. The humane society provides training to our staff and volunteers. They offer this program to all schools or to any group in Broward County. Currently they are working on implementing a program with local police officers. They have taught this lesson to Animal Control Officers, US Postal Service and more. This is a very important lesson to reduce dog bites and attacks.

B. Animal Identification/ Collars/ Leashes– this lesson is taught in the schools and in county camp and kid's club programs. The lesson focuses on the importance of your pet always wearing identification including a collar and tag, microchip and a leash for their own safety. The humane society does encourage the use of break-away collars and not using choke chains or prong collars ever. Every year millions of pets end up lost and never return home due to lack of

identification.

C. Safety Brochures– The humane society has a number of safety brochures that they pass out at general events, in presentations and are available at the shelter which include: Hot Car/Hot Pet, Holiday Dangers, Hurricane Preparedness for Your Pet, Prong Collar/Choke Chain verse Front Pull Harness, Lost Pet, Bookmarks on "How to Meet a Dog Safely", Poisons and Pets, Break the Chain (about not chaining your dog), Outdoor Dogs not the Best Idea. These brochures are easy to read and are accompanies by illustrations.

D. Dog training classes– All of the classes include proper fitting of collars and harnesses, proper leashes and 100% positive training. They have a multitude of handouts available on line for every behavior. Some behavior and training classes require a donation, $150.00 for dogs adopted from the shelter, $180.00 for all other dogs. These classes are in a series of six classes for dogs five months and older.

E. Miscellaneous – Humane societies are always happy and willing to partner with communities to promote "Pet Safety." They have many brochures at police stations; Neighborhood Watch groups and recently partnered with a company to promote water safety and boating with dogs.

Several senior citizen group centers were reviewed for pet safety education courses including the Volen Center, Brookdale Senior Living, and Saint Andrews Estates, a pet-friendly continuing care retirement community. None of the organizations reviewed demonstrated documents announcing dog owner education opportunities. The American Kennel Club (AKC) did not have any specific training or education offerings for senior

citizens.

Palm Beach County offers a Humane Education program about animal welfare issues and animal laws to local schools. School presentations are limited to 150 students and three presentations per school; they include field trips to animal care and control and shelter tours. There is no fee for these programs. The City of Boca Raton offers puppy kindergarten and beginner dog classes that focus on obedience but not safety education. The classes run in 6-week sessions, 1 hour per session. The cost is $90 for residents of Boca Raton and $112.50 for non-residents.

The document analysis covered a wide range of content searching for educational opportunities for dog owners. The results demonstrated a wider range of opportunities for obedience and behavior focused training, with less available options for dog educational safety and emergency training.

Chapter Summary

In sum, this chapter describes the statistics derived from the online surveys and captured the categorical answers for each interview question separated by participant by occupation. Documents were systematically analyzed to relate their usefulness in confirming the survey and interview results. In addition to the questions answered on the document analysis form (see Appendix G), the researcher reviewed the what, when, where and why of each document to relate its significance to the purpose statement.

CHAPTER 5. REVIEW OF FINDINGS

Introduction

This mixed methods study sought to describe the current state of dog safety community education in Florida and to propose policies and procedures for dog safety community education for adults, if needed based on the research. Although the origin of the study was born out of tragedy, research questions were formulated in direct efforts to initiate positive educational opportunities for the community, if needed. The research questions were designed to investigate the current state of dog safety education in the Florida community and answered in this chapter.

Summary/Findings

Individuals interact with dogs on a daily basis, with nearly half of our country coming home to their own dogs each day, yet dog safety education receives little to no attention. While many cities across the state of Florida recognize dog obedience classes as important and the state of Florida is one of only nine states that recognize humane education as part of the public school curriculum, the piece of protecting dog's safety on its own is not readily accessible.

Research Question 1

What reasons, do dog owners state for their need for a dog?

Research question one was answered through survey, 94% of participants stated companionship as a reason for needing a dog, followed by social interaction and family interaction. The literature review did provide an accurate correlation of value based in

bodies of research on physical, physiological, psychological, social, family interaction, social catalyst. Participants included each one of these items as reasons for why they need and value their dog.

Research Question 2

How does the literature compare to the survey results on value of dogs to their owners (i.e., physical, physiological, psychological, social, family interaction, social catalyst)?

The lack of available educational opportunities in the community and nationwide created a disconnect in answering research question two. The literature review did provide an accurate correlation of value based in bodies of research on physical, physiological, psychological, social, family interaction, social catalyst. Participants included each one of these items as reasons for why they need and value their dog.

Research Question 3

What ranking, on a sliding scale, do the current dog owners place on the value of their dogs? (10-Highest to 1-Lowest)

The findings from this study's survey demonstrate that the dog owning participants in the state of Florida value their pets, ranking the value of their dog in their lives as high, over a 9.5 out of 10 on a Likert scale, answering research question three.

Research Question 4

Do current dog and past dog owners see a value in the creation of dog safety community education?

Research question four was answered with 77% of survey respondents declaring "yes" they do want their town to offer dog safety education to its community members. There is an opportunity to satisfy that need through education.

Research Question 5

What community education programs, if any, need to be in place regarding dog safety?

Survey participants were asked “Question 9: “what would you need to confidently manage a dog emergency, select all that applies”. The majority of participants (73%) responded that they need tactical training (i.e., pet CPR, wound care, chocking dislodging). This is followed by 60% of participants who responded that they would need dog safety education (i.e.: prevention tips and management) and 53% of respondents would need help from a medical professional. Only 6% of respondents answered that they need nothing because they have adequate knowledge and training. This finding means the majority of respondents (94%) would need some form of intervention to manage a dog emergency, which answers research Q5.

Research Question 6

What do professionals working with dogs (veterinarians, police officers, fire fighters, humane societies, obedience schools) believe the importance of canine safety education to be?

Research question six was addressed through interviews with professionals who work with dogs, they were asked if they would support dog safety education. 100% of participants answered with an enthusiastic yes, a great demonstration of their belief in the importance of canine safety education.

Conclusions

This mixed methods study sought to describe the current state of dog safety community education in Florida and to propose policies and procedures for dog safety community education for adults, if needed based on the research. Research questions

were guided by and focused on identifying the current state of dog safety community education.

Of the 150 participants, the majority (65%) have experienced or know someone has experienced a dog related emergency. Despite a significantly high value placed on their dogs and a high exposure to dog emergencies, when asked in an emergency situation where a dog's life is in danger, survey question number 8 "do you feel you have adequate knowledge and skills to assist the dog in the emergency", 77% of participants answered that they were "not sure" or "no" they did not have adequate knowledge. These results are correlated to the findings from the interviews as only four of the ten participants were aware of a dog safety education or training programs, however the majority of participants (60%) were not aware of any community education offerings on this topic. It is important to note that the four people that were aware of the emergency training opportunities were dog trainers and humane society educators by profession. These results also echoed through the document analysis as dog safety education opportunities are not readily advertised through typical sources such as community newspapers, website announcements or flyers.

After carefully examining data collected from 10 interviews, document analysis, and surveys of 150 participants who are dog owners in Florida, the researcher of this study revealed factors that show substantial value that dog owners place on their dogs and interest in educational opportunities to protect their safety.

Recommendations for Further Research

Recommendations for future research to focus on areas of investigation to enhance an understanding and appreciation of the implemented dog safety education

programs. By refining the research to include demographics such as household income and profession, the researcher could identify experience and access to educational opportunities. There are lessons to be learned in creating the training models, and the models effectiveness. It is recommended to submit this research for publication in applicable journals and magazines at both the community and academic level. The researcher intends to present this topic at future conferences and seminars including the American Association for Adult & Continuing Education (AAACE), International Society of Self-Directed Learning (ISDL), and meeting with Community Education Directors. Community education involves leveraging resources and the researcher intends to use her memberships in several chamber of commerce boards across the state through other business ventures, to use that existing platform to present this research.

Recommendations for Future Practice

Florida law 233.09 (TeachHumane.org, 11/1/16) states "When recommending instructional materials for use in the schools, each committee shall require such materials as it deems necessary and proper to encourage thrift, fire prevention, and humane treatment of people and animals." It could be argued that proper dog safety techniques would qualify under this statute as saving a dog's life and preventing tragedy is part of humane education for the dog and for the pet owner or others that may come in contact with a dog.

Florida's law requires instruction in the humane treatment of animals in public schools. This is a great start, and opens the dialogue to include dog safety techniques into these existing programs. There are two levels that can be addressed: the community and first responders. Florida law 233.09 is a gateway into the community by educating the

children of the community. A recommendation is to expand this learning opportunity to include adults and families so that the lessons are reinforced at home and learning is participated in as a collective unit. Dogs are considered members of the family in American culture, among many other cultures across the globe, so the inclusion of dog safety education as a family learning opportunity coincides. Dog safety education opportunities could be implemented in a variety of community based settings including city and county Parks & Recreation departments, local humane societies, veterinarian's offices and public schools. By exposing children to the value of pet safety in afterschool programs and clubs, the children can bring this information home to share and educate their own families.

Another recommendation particularly applicable to the area of study is to implement dog safety education and training targeting senior citizens. The majority of senior living communities and adult day care centers already offer educational opportunities to its members, however dog safety education is missing from the course offerings. This is ironic because so many senior citizens rely on their dogs for disability assistance, therapy and emotional support. In many cases, the well-being of the dog is closely related to the well-being of the senior citizen and these offerings could prove both beneficial and empowering. This could be a future study into the self-efficacy of senior citizens pre and post dog safety training.

There is a large community of dog loving expert volunteers qualified to teach these offerings. From the response of the police officers and firefighters interviewed, as well as many survey respondents, this initiative would more likely succeed through private funding as opposed to government funding because there are many other

initiatives that receive more support and attention. It could also be a great opportunity to create a train the trainer model, and provide returning wounded war veterans with the opportunity to train with a dog, providing an opportunity for healing and helping. The researcher fully intends to create a nonprofit organization titled “For Pets’ Sake” to raise funds and push forward the work from this study and put it into practice with legislation. For Pets Sake will focus on dog safety community education for the dog owners in the community as well as first responders who our community members depend on in cases of emergency.

Based on the findings from this study, a great area of opportunity is with emergency responders, 93% of participants said “yes” they think it would be beneficial for emergency response professionals (i.e., first responders, firefighters, police officers, animal control officers) to participate in dog safety education. One suggestion is to include dog safety education into the course offerings for required annual continuing education units. It would be the officer’s decision to participate in the course but would provide a level of discernment in education among other responders. The US Department of Homeland Security has approved similar curriculum in state-sponsored courses that fulfill requirements of Congress’ 2006 Pets Evacuation and Transportation Standards Act. Of the responders interviewed, 100% said that they would support a dog emergency training.

Survey participants offered a final recommendation, which include a telephone number for animal emergencies. Implementing a phone line specifically for animal emergencies could help to make the difference in managing a life-threatening situation.

The participants in this study made other suggestions of note:

- "Vets (veterinarians) alone would not be able to provide adequate security. Maybe there could be a number for emergency pet services instead of the fire or police department."
- "Emergency professionals should be available for contact in cases where a dog is in danger, just as with a human."
- "If there is a human emergency, the first place I'd call is 911... Is there such a response for animal emergencies? If it is a simple adjustment for these officers to learn a bit extra for common animals (if I were in an emergency I would probably apply human rescue techniques myself), sounds like a good idea to me!"
- "If you call 911, they should have the knowledge to help all common house pets. There is no emergency line for a pet if they have a fatal issue."

Closing Statement

The history of the human-canine relationship and the human-canine bond is longstanding and has grown and developed throughout the years. Today, dogs are part of the family and are beneficial in impacting the people across our country. The significance of this study presented additional research dispelling a misconception that dog safety education is easily accessible and available in Florida based communities. This study was also significant because it contributed to the literature by identifying the value dog owners place on their dogs, as demonstrated in both survey and document analysis. Maslow (1970) believes that individuals have an intrinsic drive towards self-direction and growth. Reflection and experiential learning is an important component for all learners, including learners interested in dog safety. As indicated by the results of this study, dog

owners place a significantly high value on their dogs and don't feel that they have the knowledge and skills to adequately manage a dog emergency. The participants of this study would like to see dog safety community education implemented in their community, through offerings to both community dog owners and first responders.

Community Education embraces the beliefs that: education is a lifelong process, the entire community shares a responsibility of educating community members of all ages, and citizens have responsibility and a right to connect resources to improve their community. There is a basis of learner-centered collaboration and inclusion to advance community learning and sustainability. A community of practice (Wenger, 1998) made up of dog lovers needs to be developed to see dog safety community education in the state of Florida. McGivney (1999) found that informal learning produced by community members themselves frequently resulted in broader community involvement and activism; this style of learning lends itself to the vision of dog safety community education. Protecting our dogs' safety by educating the community will strengthen the awareness and confidence of canine lovers across the state and hopefully reduce the number of preventable dog emergencies. This will most likely not be an easy fix, as many other initiatives have taken precedence. However, with private funding, marketing, and passion it is entirely possible to educate the willing dog-loving community on dog safety.

APPENDICES

Appendix A. IRB Approval Letter

Institutional Review Board
Division of Research
777 Glades Rd.
Boca Raton, FL 33431
Tel: 561.297.1383
fau.edu/research/researchint

Charles Dukes, Ed.D., Chair

DATE:	August 24, 2016
TO:	Valerie Bryan, Ph.D.
FROM:	Florida Atlantic University Social, Behavioral and Educational Research IRB
PROTOCOL #:	926652-2
PROTOCOL TITLE:	[926652-2] For Pet's (and their Owner's) Sake: Is there a need for dog safety community education?
SUBMISSION TYPE:	Response/Follow-Up for New Project
REVIEW CATEGORY:	Exemption category # *A3*
ACTION:	DETERMINATION OF EXEMPT STATUS
EFFECTIVE DATE:	August 24, 2016

Thank you for your submission of Response/Follow-Up materials for this research study. The Florida Atlantic University Social, Behavioral and Educational Research IRB has determined this project is EXEMPT FROM FEDERAL REGULATIONS. Therefore, you may initiate your research study.

We will keep a copy of this correspondence on file in our office. Please keep the IRB informed of any substantive change in your procedures, so that the exemption status may be re-evaluated if needed. Substantive changes are changes that are not minor and may result in increased risk or burden or decreased benefits to participants. Please also inform our office if you encounter any problem involving human subjects while conducting your research.

If you have any questions or comments about this correspondence, please contact Donna Simonovitch at:

Institutional Review Board
Research Integrity/Division of Research
Florida Atlantic University
Boca Raton, FL 33431
Phone: 561.297.1383
researchintegrity@fau.edu

* Please include your protocol number and title in all correspondence with this office.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within our records.

Appendix B. Survey

Why Do You Own a Dog?

Target Audience: Dog Owners in Florida

The purpose of the needs assessment is to

- Identify value of dogs to owners
- Identify areas for future outreach activities
- Target resources more effectively to complete the mission of providing safety to pets

1. How many dogs do you own currently?

   1

   2

   3

   4

   5

   6+

2. How many hours do you spend each week caring for your dog(s)?

   _____

3. What reasons do you have for owning a pet dog? Check all that apply.

   Physical

   Physiological

   Psychological

   Social

   Family Interaction

Companionship

Health-related

Safety

Other_____

4. Do you see value in dog safety community education for dog owners to attend?

   No Value 0 –1—2—3—4—5—6—7—8—9—10 High Value

5. Have you or someone you know experienced a dog-related emergency or tragedy?

   Yes or No

   If yes, Please describe (i.e. was the emergency fatal, what did you do?)

   _____

6. What dog safety precautions are you currently aware of? Check all that apply.

   Flea, heartworm, tick

   Foods to avoid

   Heat safety

   Poisonous animals & plants

   Collar danger

   Choking hazards/ leash laws

7. On a scale of 1 through 10, how much do you value your dog? (with level of importance in your life set at 1for the Lowest, to 10 is highest)

   1 2 3 4 5 6 7 8 9 10

8. In an emergency situation where a dog's life is in danger, do you feel you have adequate knowledge and skills to assist the dog in the emergency?

   Yes

No

Not sure

Why or why not?

---

9. What would you need to confidently manage a dog emergency? Check all that apply.

   Nothing, I have adequate knowledge & training

   Tactical Training (i.e.: pet CPR, wound care, choking dislodging)

   Help from medical professional

   Dog safety Education (i.e.: preventative tips)

   Other_____

10. What is the best way to receive information about dog safety? Check all that apply.

    Email

    Training

    Newsletter

    Personal interaction

    Brochures/Pamphlets

    Website

11. Do you want your town to offer dog safety education to its community members?

    Yes

    No

No Opinion

12. Do you think it would be beneficial for emergency response professionals (ie: first responders, firefighters, police officers) to participate in dog safety education?

    Yes or No

    Why or Why not: _____

13. How much time would you commit to participating in dog safety community education?

    Less than 1 hour

    1-2 hours

    3-6 hours

    over six hours

14. (Optional)

Thank you for your time and participation in this survey. If you would like to receive information about the results of this study or upcoming pet emergency trainings, please enter your email address _____

Appendix C. Recruiting

Email Blast from Parks & Recreation Department

& To Special interest groups at FAU

Dear Community Members,

If you are a dog owner, please complete this survey on "Why you Own a Dog." Results will be analyzed by a doctoral student at FAU, to explore the opinions of community members on pet safety education in our neighborhoods.

The survey will only take a few minutes to complete and you will remain completely anonymous.

Thank you for your time.

Appendix D. Document List

Document List

1. American Red Cross website
2. Basic Animal Rescue Training website
3. Pet Emergency Education website
4. Pet Tech website
5. Palm Beach County Humane websites
6. City of Boca Raton websites
7. Boca Raton municipalities websites
8. Community newspapers (i.e.: Boca News)
9. Community Organization flyers
10. Senior citizen group announcements

Specific areas of interest include:

1. Dog owner Education options
2. Availability of dog safety education
3. Training/education platform
4. Cost of attendance

Appendix E. Informed Consent

Informed Consent

Title of research study: "For Pet's (and their owners) Sake: Is there a need for dog safety community education?"

Investigator: Jaclyn Falcone, Ed.S.

Purpose: I am being asked to participate in a doctoral research project that will explore the opinions of Florida community members on dog safety community education.

Procedures: I understand that by giving my consent that I agree to participate in a 14 question online survey lasting approximately 5 minutes and open to follow up questions. You will be asked questions about your current or past dogs.

Risks: I understand that it is possible that the survey may stimulate sad feelings related to animal emergencies.

Benefits: I understand that, by participating in this study, I will be contributing to an effort to increase the knowledge of the impact of dog safety.

Data Collection & Storage: Your data will be submitted to an FAU server using a secure, encrypted website. Only the researchers working with the study will see your data. All data provided will be kept confidential, unless required by law. We will make every attempt to keep your data secure to the extent permitted by the technology. However, no guarantees can be made regarding the interception of data sent via the Internet by any third parties. Stored data will be deleted from the server and any computers used in this study one year after the study is completed. I will be guaranteed anonymity in this study. I understand the material may be quoted or paraphrased in the

write up of this study but that no identifying information will be used. I also understand that I have the option to refuse to participate in this study or to withdraw from it without prejudice at any time.

Contact Information: For related problems or questions regarding your rights as a research subject, contact the Florida Atlantic University Division of Research at (561) 297-0777. For other questions about the study, you should call the principal investigator Valerie Bryan at 561-297-3000.

Consent Statement:

I have read the information describing this study. All my questions have been answered to my satisfaction. I am 18 years of age or older and freely consent to participate. I understand that I am free to withdraw from this study at any time without penalty. I have printed a copy of this consent form for my records. By clicking the "I consent" button below, I am giving my consent to participate in this research study.

____ I consent to the study

____ I do not consent to the study

My quoted words can be used in this study without identifiers

____ Yes

_____ No

Date:_____

Appendix F. Interview Protocol

Interview Protocol & Verbal Consent Script

Audience: (Two of each)

Veterinarians, Police Officers, Fire Fighters, Obedience Schools, Animal Shelters

Interviewer:

Interviewee:

Position:

Date:

Start Time:

End Time:

Thank you very much for participating in this interview. My name is Jaclyn Falcone, and I am a doctoral student in the Educational Leadership Program at Florida Atlantic University. I am conducting research on dog safety in our community and the purpose of this interview is to understand what professionals working with dogs believe the importance of pet safety education to be.

Today you are participating in an individual phone interview, which should take approximately 20 minutes. Please know that your identity will remain strictly confidential as your name will not appear anywhere in the final manuscript. You may opt out of answering any or all of the questions at any time. You may do so by saying, "no comment", "next question" or "I'd like to end the interview". Answers given in this interview will be recorded, transcribed and synthesized into a final report, and will be void of any identifying properties. The audio recording will be stored on the researcher's

computer and destroyed one year from the interview date. Taking part in this interview is your agreement to participate.

If you would like a copy of this letter for your records, please let me know and I will email a copy to you. If you have any questions regarding the research, contact Valerie Bryan, my advisor, at bryan@fau.edu in the Department of Educational Leadership and Research Methodology. If you have any questions regarding your rights as a research subject, please contact the Florida Atlantic University Division of Research at (561) 297-0777. Thank you again for your help.

Do I have your permission to record this interview?

Do you have any questions before we begin?

Interview questions:

1. What types of dog emergency/safety training are you aware of?
2. Why is the dog emergency/safety training conducted/not conducted?
3. Would you support a dog emergency/safety training? Why or why not?
4. How much support do you think a dog emergency/safety training would receive from community officials? Legislation?

Probe questions (Bogdan and Bilken, 2007)

1. Would you explain that?

2. Tell me about that.

3. What do you mean by that?

Thank you for taking the time to complete this interview. Please be assured that your identity will remain anonymous. This concludes our interview.

May I contact you for any clarifying or follow up information if necessary?

Appendix G. Document Summary Guide

Document Summary Guide

Name or description of document:

Event or contact, if any, with which document is associated:

Significance or importance of document:

Brief summary of contents and researcher analysis below:

Appendix H. Recruitment Post on Social Media

Recruitment Post on Social Media for dog owners

"Attention: dog owners in Florida,

Why do you own a dog? Please complete this survey to share your answers.

The survey will take less than 5 minutes. Results will be analyzed by a doctoral student at FAU, to explore the opinions of community members on dog safety education in our neighborhoods.

Thank you for your time!"

Appendix I. Letter of Cooperation

June 23, 2016

To Jaclyn Falcone and the FAU IRB,

I am familiar with Jaclyn Falcone's research project entitled "For Pet's (and their owners) Sake: Is there a need for pet safety community education?". I understand the Parks and Recreation Department's involvement to include taking and sending out the provided email with the survey link included to fellow recreation employees and community members during the months of July and August of 2016. The survey is expected to take just a few minutes to complete.

I understand that this research will be carried out following sound ethical principles and that participant involvement in this research study is strictly voluntary and provides confidentiality of research data, as described in the protocol.
On behalf of the Parks & Recreation department we look forward to participating in Mrs. Falcone's research project, and please consider this communication as the Letter of Cooperation.

Sincerely,

Rebecca Pagan

Director of Parks & Recreation
Encore at Reunion

REFERENCES

American Animal Hospital Association (2016). Pets matter. Retrieved: https://www.aaha.org/default.aspx

American Veterinary Medical Association (2016). Pet ownership calculator. Retrieved: https://www.avma.org/KB/Resources/Statistics/Pages/Market-research-statistics-US-pet-ownership.aspx

AONTAS (2000). Community education policy series. Dublin, IRL; AONTAS.

Armour, E. (2012). *Animal-assisted therapy: An adjunctive intervention for reducing depression and anxiety in female college students with physical disabilities and guidelines for implementation into psychotherapy practice and research.* (Electronic Thesis or Dissertation). Retrieved from https://etd.ohiolink.edu/

Basic Animal Rescue Training (BART). (2016). Basic animal rescue training national. Retrieved from http://basicanimalrescuetraining.org

Beck, A., & Katcher, A. H. (1996). *Between pets and people*. West Lafayette, IN: Purdue University Press.

Beck, M. (2010). Beside Freud's couch, a chow named Jofi. *The Wall Street Journal*. Retrieved from http://online.wsj.com/articles/SB10001424052748703886904576031630124087362

Bilger, B. (2003). *The last meow.* New York, NY: Conde Nast Publications, Inc.

Boccagno, J. (2016). Therapy dogs deployed to Orlando. *CBS News.* Retrieved from: http://www.cbsnews.com/news/orlando-shooting-therapy-dogs-lutheran-church-charities-k-9-comfort-dogs/

Bolman, L. G., & Deal, T. E. (2013). *Reframing organizations: Artistry, choice, and leadership*.

Bradshaw, J. (2011). *Dog sense*. New York, NY: Basic Books.

Bryant, B. K., & Donnellan, M. B. (2007). The relation between socio-economic status concerns and angry peer conflict resolution is moderated by pet provisions of support. *Anthrozoös*, *20*(3), 213-223.

Brown, S. G., & Rhodes, R. E. (2006). Relationships among dog ownership and leisure-time walking in western Canadian adults. *American Journal of Preventive Medicine*, *30*(2), 131-136. Retrieved from Science Direct. http://www.ncbi.nlm.nih.gov/pubmed/16459211

Bruner, J. (1977). *The Process of Education* (2nd ed.). Cambridge, MA: Harvard University Press.

Buchanan, E. & Hvizdak, E. (2009). Online survey tools: Ethical and methodological concerns of human research ethics committees. *Journal of Empirical Research on Human Research Ethics, 4*(2), 37-48.

Buszewski, B., Rudnicka, J., Ligor, T., Walczak, M., Jezierski, T., & Amann, A. (2012). Analytical and unconventional methods of cancer detection using odor. *TrAC Trends in Analytical Chemistry*, *38*, 1-12.

Camp, M. M. (2001). The use of service dogs as an adaptive strategy: A qualitative study. *American Journal of Occupational Therapy, 55*(5), 509-517.

Canfield, J. (1999). *Chicken soup for the pet lover's soul: Stories about pets as teachers, healers, heroes and friends.* (pp. 103-104). Deerfield Beach, FL: Health Communications.

Caspari, E. (2003). *Animal life in nature, myth and dreams.* Wilmette, EL: Chiron.

Charnetski, C. J., Riggers, S., & Brennan, F. X. (2004). Effect of petting a dog on immune system function. *Psychological Reports*, *95*(3,Pt2), 1087-1091.

Chinner, T. L., & Dalziel, F. R. (1991). An exploratory study on the viability and efficacy of a pet-facilitated therapy project within a hospice. *Journal of palliative care*, *7*(4), 13-20.

Clutton-Brock, J. (2006). Origins of the dog: Domestication and early history. In J. Serpell (Ed.), *The domestic dog: Its evolution, behaviour and interactions with people* (pp. 7-20). New York: Cambridge University Press.

Cole, K. M., Gawlinski, A., Steers, N., & Kotlerman, J. (2007). Animal-assisted therapy in patients hospitalized with heart failure. *American Journal of Critical Care*, *16*(6), 575-585.

Crawford, E. K., Worsham, N. L., & Swinehart, E. R. (2006). Benefits derived from companion animals, and the use of the term "attachment". *Anthrozoös*, *19*(2), 98-112.

Creswell, J. (2013). *Qualitative inquiry & research design: Choosing among five approaches* (3rd ed.). Thousand Oaks, CA: Sage Publications.

Cutt, H., Giles-Corti, B., & Knuiman, M. (2008). Encouraging physical activity through dog walking: Why don't some owners walk with their dog? *Preventative Medicine*, *46*, 120- 126. Retrieved from *Science Direct* at http://www.sciencedirect.com/science/journal/00917435/46/2

Darkenwald, G. and Merriam, S. (1982) *Adult education. Foundations of practice*,New York: Harper and Row.

Dictker, D. & Roznowski, M. (1996). Basic statistical analysis. In F. Leong & J. Austin (Eds.), *The psychological research handbook: A guide for graduate students and research assistants* (pp. 114-124). Thousand Oaks, CA: Sage Publications.

Digby, A. (1984). The changing profile of a nineteenth-century asylum: The York Retreat. *Psychological Medicine, 14*(4), 739.

Dotson, M. J., & Hyatt, E. M. (2008, May). Understanding dog-human companionship. *Journal of Business Research*, *61*(5), 457-466. Retrieved from *Science Direct* http://www.2ndchance.info/WhyIBDmypetDotson2008.pdf

Edmonds, A. S., & Cutter, S. L. (2008). Planning for pet evacuations during disasters. *Journal of Homeland Security and Emergency Management*, *5*(1) 1-18.

Elo, S., & Kyngäs, H. (2008). The qualitative content analysis process. *Journal of advanced nursing*, *62*(1), 107-115.

Fawcett, N. R., & Gullone, E. (2001). Cute and cuddly and a whole lot more? A call for empirical investigation into the therapeutic benefits of human-animal interaction for children. *Behaviour Change*, *18*(2), 124-133. Retrieved from *Science Direct* https://www.cambridge.org/core/journals/behaviour-change/article/div-classtitlecute-and-cuddly-and-a-whole-lot-more-a-call-for-empirical-investigation-into-the-therapeutic-benefits-of-humananimal-interaction-for-childrendiv/798747FD2527E6D6E13C5B4DD4CEF311

Frankel, R. (2014). *War dogs: Tales of canine heroism, history, and love*. New York, NY: St. Martin's Press.

Gall, M., Gall, J. & Borg. W. (2007). *Education research: An introduction* (8th ed.). Boston, MA: Allyn and Bacon.

Gay, L., Mills, G., & Airasian, P. (2011). *Educational Research* (8th ed.). Upper Saddle River, NJ: Pearson.

Government of Ireland (1998). *Green paper on adult education, adult education in an era of lifelong learning*. Dublin, IRL: Stationery Office.

Government of Ireland (2000). *Learning for life: White paper on adult education. Department of education and science*. Dublin, IRL: Stationery Office.

Hare, B., & Woods, V. (2013). *The genius of dogs: How dogs are smarter than you think*. Westminister, UK: Penguin.

Headey, B., Na, F., & Zheng, R. (2008). Pet dogs benefit owners' health: A 'natural experiment' in China. *Social Indicators Research, 87*(3), 481-493.

Horowitz, A. (2010). *Inside of a dog: What dogs see, smell, and know*. New York, NY; Simon and Schuster.

Jarvis, P. (1987). *Adult learning in the social context*. London, GB: Croom Helm.

Katz, J. (2003). *The new work of dogs: Tending to life, love, and family*. New York, NY: Random House Trade Paperbacks.

Knowles, M. (1984). *Andragogy in action*. San Francisco, CA: Jossey-Bass.

Knowles, M. (1973). *The adult learner: A neglected species*. Houston, TX: Gulf Publishing Company.

LeCompte, M. & Schensul, J. (1999). *Designing and conducting ethnographic research* (Ethnographer's toolkit, Vol. 1). Walnut Creed, CA: AltaMira.

Leonard, H. A., & Scammon, D. L. (2007). No pet left behind: Accommodating pets in emergency planning. *Journal of Public Policy & Marketing*, *26*(1), 49-53.

MacLean, E., Hare, B. (2015). Dogs hijack the human bonding pathway. *Science, 348*, 280-281. DOI: 10.1126/science.aab1200

Mallon, G. P. (1992). Utilization of animals as theraptutic adjuncts with children and youth: A review of the literature. *Child and Youth Care Forum, 21*, 53-67.

Marinelli, L., Adamelli, S., Normando, S., & Bono, G. (2007). Quality of life of the pet dog: Influence of owner and dog's characteristics. *Applied Animal Behaviour Science*, *108*, 143-156. Retrieved from Science Direct.

Martin, F., Farnum, F., & Farnum, J. (2002, October). Animal-assisted therapy for children with pervasive developmental disorders. *Western Journal of Nursing Research*, *24*(6), 657- 670. Retrieved from EBSCOhost.

Maslow, A. (1970). *Motivation and personality* (2nd ed.). New York: Harper and Row.

Mattessich, P., & Monsey, B. (1997). *Community building: What makes it work? A review of factors influencing successful community building.* New York, NY; Fieldstone Alliance.

McCubbin, M. A., & McCubbib, H. I. (1993). Families coping with illness: The resiliency model of family stress, adjustment and adaptation. In C. B. Danielson, B. Hamel-Bissell, & P. Winstead-Fry (Ed.), *Families, health, & illness* (pp. 21-63). St. Louis: Mosby.

McCubbin, H. I., Thompson, E. A., Thompson, A. I., & Fromer, J. E. (1998). *Stress coping, and health in families: Sense of coherence and resiliency.* Thousand Oaks, California: Sage.

McGivney, V. (1999). *Informal learning in the community: A trigger for change and development.* Ballart, Victoria. National Institute of Adult Continuing Education.

McNeil, D. G. (2006). Dogs excel on smell test to find cancer. *The New York Times*, *17*. Retrieved from http://www.nytimes.com/2006/01/17/health/dogs-excel-on-smell-test-to-find-cancer.html

Melson, G. F. (1991). Children's attachment to their pets: Links to socioemotional development. *Childrens Environments Quarterly, 82*, 55-65.

Melson, G. F. (2003). Child development and the human-companion animal bond. *American Behavioral Scientist, 47*(31), 31-39.

Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation*. San Fransisco, CA: Jossey-Bass.

Merriam, S. B. and R. S. Caffarella (1998). *Learning in adulthood: A comprehensive guide* (2nd ed.). New York, NY: Jossey-Bass.

Messent, P. R. (1983). Social facilitation of contact with other people with pet dogs. In *new perspectives on our lives with companion animals,* Eds. A. H. Katcher & A.M. Beck, pp. 37-46. Philadelphia, PA: University of Pennsylvania Press.

Mezirow, J. (1981). A critical theory of adult learning and education. *Adult Education, 32*(1), 3-24.

Moretti, F., De Ronchi, D., Bernabei, V., Marchetti, L., Ferrari, B., Forlani, C., ... & Atti, A. R. (2011). Pet therapy in elderly patients with mental illness. *Psychogeriatrics*, *11*(2), 125-129.

Nagengast, S. L., Baun, M. M., Megel, M., & Leibowitz, J. (1997). The effects of the presence of a companion animal on physiological arousal and behavioral distress in children during a physical examination. *Journal of Pediatric Nursing, 12*(6), 323-330.

Neimeyer, R. A., Harris, D. L., Winokuer, H. R., & Thornton, G. F. (Eds.). (2011). *Grief and bereavement in contemporary society: Bridging research and practice*. New York, NY. Routledge.

Odendaal, J. S. J. (2000). Animal-assisted therapy -- magic or medicine? *Journal of Psychosomatic Research, 49*(4), 275-280.

Olson, P. N. (2002). The modern working dog: A call for interdisciplinary collaboration. *The Journal of the American Medical Association*, *221*, 352-355.

Patton, M. (2002). *Qualitative research and evaluation methods: Integrating theory and practice.* (4th ed.). Los Angeles, CA: Sage Publications.

Pet Emergency Education, LLC. (2016). Register for a class. Retrieved from http://petcpr.petemergencyeducation.com/petcpr/

PetTech.net (2016). PetTech programs. Retrieved from. http://www.pettech.net/index.php

Piaget, J. (1970). Structuralism. New York: Harper & Row.

Posavac, E. J. & Carey, R. G. (1997). *Program evaluation: Methods and case studies.* Saddle River, NJ: Prentice Hall.

Risely-Curtiss, C. (2010). Social work practitioners and the human-companion animal bond: A national study. *Social Work, 55*(1), 38-46.

Russack, N. (2000). *Animal guides: In life, myth and dreams.* Toronto, ON, Canada: Inner City Books.

Salkind, N. (2009). *Exploring research* (7th ed.) Upper Saddle River, NJ: Pearson/Prentice Hall.

Schaefer, K. (2002, January). Human-animal interactions as a therapeutic intervention. *Counseling and Human Development*, *34*(5), 1-18. Retrieved from *Science Direct* http://www.sciencedirect.com/science/book/9780123814531

Schaffer, C. B. (2009, Winter). Animals connecting people to people: Insights into animal- assisted therapy and animal-assisted activities. *Reflections*, *15*(1) 42-45.

CeVe (1990). *Scottish Community Education Council: Preservice training for community education work,* Edinburgh, SCT: SCEC.

Sharkin, B. S., & Knox, D. (2003). Pet loss: Issues and implications for the psychologist. *Professional Psychology: Research and Practice*, *34*(4), 414.

Shiloh, S., Sorek, G., & Terkel, J. (2003). Reduction of state-anxiety by petting animals in a controlled laboratory experiment. *Anxiety, Stress & Coping, 16*(4), 387-395.

Tannen, D. (2004). Talking the dog: Framing pets as interactional resources in family discourse. *Research on Language & Social Interaction, 37*(4), 399-420.

TeachHumane.org (2016). Humane education laws. Retrieved from http://teachhumane.org/advocacy/human-ed-laws/

Thomas, S. C., & Beirne, P. (2002). Humane education and humanistic philosophy: Toward a new curriculum. *Journal of humanistic counseling, education, and development, 41,* 190-199. Retrieved from http://www.c-ahead.com/publications.htm

Trivedi, L., & Perl, J. (1995). Animal facilitated counseling in the elementary school: A literature review and practical considerations. *Elementary School Guidance & Counseling*, *29*(3), 223-34. Retrieved from EBSCOhost.

United States Army (2016). Military working dog handler. Retrieved from: http://www.goarmy.com/careers-and-jobs/browse-career-and-job-categories/legal-and-law-enforcement/military-working-dog-handler.html

United States Bureau of Labor, (2013). Americans spend $61 billion on pets annually. Retrieved from http://www.usnews.com/news/articles/2013/05/22/americans-spend-61-billion-on-pets-annually

United States Census Bureau, (2016). Quick facts United States. Retrieved from, http://www.census.gov/quickfacts/table/HSG445214/1207300,00

Valentine, D. P., Kiddoo, M., & LaFleur, B. (1993). Psychosocial implications of service dog ownership for people who have mobility or hearing impairments. *Social Work in Health Care*, *19*, 109-125.

Veevers, J. E. (1985). The social meanings of pets: Alternative roles for companion animals. In M. B. Sussman (2016) (Ed.), *Pets and the family* (pp. 11-30). New York: Haworth Press.

Velde, B. P., Cipriani, J., & Fisher, G. (2005). Resident and therapist views of animal-assisted therapy: Implications for occupational therapy practice. *Australian Occupational Therapy Journal*, *52*(1), 43-50.

Vygotsky, L. S. (1962). *Thought and language*, Cambridge, MA: MIT Press.

Walsh, F. (2009). Human-animal bonds II: The role of pets in family systems and family therapy. *Family Process 48*(4), 481-499.

Weil, Z. (2003). *Above all, be kind: Raising a humane child in challenging times.* Gabriola Island, BC: New Society.

Wenger, E. (1998). *Communities of practice: Learning, meaning and identity.* Cambridge, UK: Cambridge University Press.

Wiersma, W. (2000). *Research methods in education: An introduction*. Boston, MA; Allyn and Bacon.

Wisdom, J. P., Saedi, G. A,. & Green, C. A. (2009). Another breed of "service" animals: Stars study findings about pet ownership and recovery from serious mental illness. *American Journal of Orthopsychiatry*, *79*, 430-436.

Wood, L. J., Giles-Corti, B., Bulsara, M. K., & Bosch, D. A. (2007). More than a furry companion: The ripple effect of companion animals on neighborhood interactions and sense of community. *Society and Animals*, *15*, 43-56.

Wright, G. (2008). The dreams that drive us. Retrieved from *The Washington Post* at http://www.washingtonpost.com/wpdyn/content/article/2008/08/08/AR2008080802941_2.html

Zilcha-Mano, S., Mikulincer, M., & Shaver, P. R. (2012). Pets as safe havens and secure bases: The moderating role of pet attachment orientations. *Journal of Research in Personality*, *46*(5), 571-580.