Exploring veterinary professionals’ management and pet owners’ experience
of companion animal euthanasia

by
Alisha Renée Matte

A Thesis
presented to
The University of Guelph

In partial fulfilment of requirements
for the degree of
Doctor of Philosophy
in
Population Medicine

Guelph, Ontario, Canada
© Alisha Matte, December, 2019
ABSTRACT

EXPLORING VETERINARY PROFESSIONALS’ MANAGEMENT AND PET OWNERS’ EXPERIENCES OF COMPANION ANIMAL EUTHANASIA

Alisha Renée Matte
University of Guelph, 2019
Advisor(s):
Dr. Deep Khosa

When a companion animal dies, it is commonplace for pet owners to grieve their loss as they would a family member. The care provided by veterinary professionals can either assist in alleviating or exacerbating a pet owners’ grief, as well as impact the wellbeing of the veterinary professional. Despite increasing recognition of these impacts, research and education into the most effective way of managing companion animal end-of-life care is presently limited.

This research consisted of two sequential studies. The first study sought to better understand the management and impacts of companion animal end-of-life care and euthanasia on veterinary professionals. The second study explored pet owners’ experiences, expectations, satisfaction and grief following companion animal euthanasia. Both studies involved the use of in-depth interviews analyzed using thematic analysis which assisted in informing the development of online questionnaire tools, data from which were analyzed using descriptive statistics and multivariable regression modelling.

Findings indicated that through the use of bond-centered practices, participating veterinary professionals aimed to support the emotional needs and comfort of the pet owners and their companion animals, and to provide the companion animal with a “good death.” When
successful in reaching these intentions, veterinary professionals reported experiencing an improved sense of wellbeing, with the alternative being experienced when they felt unsuccessful.

Participating pet owners reported high levels of satisfaction with their euthanasia experience and felt their experiences impacted their ability to cope with the loss of their companion animal. Their satisfaction with the administrative practices, emotional support, follow-up care, and care for their animal’s remains were found to be positively associated with their overall satisfaction. Their grief was found to be negatively associated with the number of previous euthanasia experiences and positively associated with the strength of the human-animal bond and if the euthanasia was emergent or sudden.

The findings of this research have both clinical and educational implications and highlight the need for veterinary professionals to consider and tailor their supportive care to the individual circumstances of pet owners and their companion animals, and the need for better education of veterinary professionals on navigating end-of-life care and euthanasia decision making.
DEDICATION

In loving memory of Brody Theodore Matte and all companion animals who have, and continue
to, touch our lives.

“Companion animals are not our whole life, but they make our lives whole.”

– adapted from Roger Cares

Brody Theodore Matte
January 2007 – January 2012
ACKNOWLEDGEMENTS

This PhD has truly been an incredible and life-changing experience and I would like to thank everyone who participated and helped me along this journey.

I would like to extend my most sincere thanks and gratitude to my advisor, Dr. Deep Khosa, who without her continued support and dedication, my success would not have been possible. Thank you for investing your time, energy and expertise into my research and professional development. I particularly want to show my appreciation for your guidance and attention to academic writing and navigating the social aspects of academia. You have been an incredible source of support and one for whom I have immense respect.

I would additionally like to thank my academic committee, Dr. Jason Coe, Dr. Michael Meehan and Dr. Lee Niel. Thank you for contributing your input and perspective to help shape and guide me and this research. Your willingness to discuss the project and provide assistance has been invaluable. You have all added your unique perspectives to each study and I appreciate how it has all come together.

Thank you to the Ontario Veterinary College Pet Trust Fund for funding this project. Without this support, the project would not have been possible. I would also like to thank the Department of Population Medicine for making my PhD degree possible and providing both financial and infrastructural support. Thank you to all of the staff and faculty of the university and in the Department of Population Medicine, whose passion for what they do have made my motivation and opportunities possible. Additionally, I would like to express my deepest gratitude to the Ethel Rose Charney Scholarship in the Human/Animal Bond for their financial support to graduate students conducting research into the human-animal bond. Your generosity has
significantly lessened the financial and emotional burdens of graduate school. I hope this research continues to carry on Ethel’s memory and her deep love for her companion animals.

I also want to express my feelings of gratitude for my colleagues, classmates and fellow graduate students whose continued support has been a significant source of motivation and inspiration. Thank you for always being accessible, listening and for sharing your own feelings and experiences. A special thanks to May Kamleh who has been a great friend and colleague throughout this shared journey. I will always fondly remember our shared perspectives, ability to reduce stress with laughter and motivate one another.

My sincere gratitude to all the participants who made this research possible. Thank you for discussing such an important and often emotional topic. Your perspectives, experience and the love you have for your own and others’ companion animals are incredible. Know that the memory of your beloved companion animals will continue to go on through this research.

Thank you to my family and friends for being by my side and offering your support and encouragement. Special thanks to Phillip, who has been an anchor throughout this journey. Your never-ending support, love and encouragement have been fundamental to my success.
DECLARATION OF WORK PERFORMED

STUDY DESIGN:

The initial research design, objectives and proposal for this research was established by Dr. Michael Meehan. Before the project commenced, it was transferred to Dr. Deep Khosa who acted as my primary advisor. Dr. Deep Khosa and I revised the research questions and data collection tools while maintaining the initial objectives and subsequently expanded the overall project. Funding for this project was provided by the Ontario Veterinary College Pet Trust Fund and I received financial support from the Ontario Veterinary College Graduate Tuition Scholarship and Ethel Rose Charney Scholarship in the Human/Animal Bond. Conceptualization of the study design and methods of analysis conducted in this research were developed by myself, under the advisement of Dr. Deep Khosa and with feedback from my advisory committee members, Dr. Jason Coe, Dr. Lee Niel and Dr. Michael Meehan. For Chapters 5 and 6, pre-validated scales were adapted and implemented in the study design. In Chapter 5, the Jefferson Empathy Scale, adapted for veterinary use by Dr. Suzie Kovacs, was kindly provided by The Jefferson Empathy Scale Group (Hojat et al., 2001). An adapted version of the Pet Bereavement Scale developed by Hunt and Padilla (2006) was incorporated in the study design of Chapter 6. The development of the questionnaires presented in Chapter 5 and 6 were also informed based on previous literature and the qualitative research conducted in Chapters 3 and 4.

QUALITATIVE DATA COLLECTION:

Through the use of convenience and purposive sampling, I recruited veterinary professionals within Wellington Country and collected data through group and one-on-one interviews. The semi-structured question guide was developed by myself with advisement and feedback from Dr. Deep Khosa. Group and one-on-one interviews were conducted by myself and
were kindly hosted by the participating veterinary clinics where a free lunch was provided to all staff. Interviews were either transcribed by a professional transcriptionist, Kathy Kimmerly or by myself.

**QUALITATIVE DATA ANALYSIS:**

All verbatim transcripts were reviewed by myself before analysis. I conducted thematic analysis on all transcripts using the software program QSR International NVivo 11/12. Resulting codes, themes, and subthemes were reviewed and agreed upon by myself and Dr. Deep Khosa during a comprehensive data review session.

**QUANTITATIVE DATA COLLECTION:**

With the assistance of veterinary organizations (the College of Veterinarians of Ontario, the Ontario Association of Veterinary Technicians and the Canadian Veterinary Medical Association), and the Pet Trust Fund Marketing Communication Manager, Jane Dawkins, I oversaw recruitment of veterinary professionals using email and newsletter communications, and pet owners using social media platforms (i.e. Facebook, Twitter, Ontario Veterinary College social media pages). Qualtrics (Qualtrics Survey Software®, 2016, Provo, Utah) was utilized as the online host for the “Exploring Veterinary Professionals Euthanasia Practices” and “Exploring Pet Owner’s Perceptions and Experience with Companion Animal Euthanasia” questionnaires in Chapters 5 and 6, respectively.

**QUANTITATIVE DATA ANALYSIS:**

Resulting questionnaire data were cleaned, organized and analyzed by myself. Descriptive statistics and multivariable modelling was conducted using Stata Statistical Software (Stata/IC 15.1 for Mac; Stata Corporation, College Station, Texas) and was reviewed by Dr. Deep Khosa. Variables selected for regression analysis were agreed upon by myself and Dr.
Deep Khosa. Statistical analysis consultations were conducted with statisticians William Sears and Dr. David Pearl from the Department of Population Medicine and Nada Hafez, a Data Analyst employed by the University of Guelph.

**PREPARATION AND PRESENTATION OF RESULTS**

All chapters within this thesis were written by myself, under the guidance and advisement of Dr. Deep Khosa. Advisory committee feedback on all chapters was provided by Dr. Jason Coe, Dr. Lee Niel and Dr. Michael Meehan.

Results from this research were presented in poster format at the Canadian Association of Veterinary Epidemiology and Preventative Medicine Conference and the Graduate Student Research Symposium in 2016, and the International Conference on Communicating in Veterinary Medicine in 2018. Oral presentations of the research were conducted at the Population Medicine Seminar in 2017, the Graduate Student Research Symposium in 2018 and the International Association for Animal Hospice and Palliative Care in 2017 and 2018.
TABLE OF CONTENTS

ABSTRACT ................................................................................................................................. ii
ACKNOWLEDGEMENTS ........................................................................................................... v
DECLARATION OF WORK PERFORMED .................................................................................. vii
TABLE OF CONTENTS .............................................................................................................. x
LIST OF TABLES ........................................................................................................................ xi
LIST OF FIGURES ..................................................................................................................... xiv
LIST OF APPENDICES ............................................................................................................ xv
LIST OF ABBREVIATIONS ....................................................................................................... xvi
PREFACE ..................................................................................................................................... xvii

CHAPTER 1: LITERATURE REVIEW ......................................................................................... 1
  1.1 Companion Animal Euthanasia and End-of-Life Care ....................................................... 2
  1.2 The Human-Animal Bond ............................................................................................... 3
  1.3 Grief Associated with Companion Animal Loss .............................................................. 5
  1.4 Pet Owners’ Expectations of Companion Animal End-of-Life Care and Euthanasia ...... 7
  1.5 Impacts of End-of-Life Care on Veterinary Professionals .............................................. 9
  1.6 Education on the Management of Companion Animal Euthanasia and Bereavement .... 10
  1.7 Companion Animal End-of-Life Care Guidelines ........................................................... 12
  1.8 Bond-Centered Care ....................................................................................................... 13
  1.9 Methodological Approach ............................................................................................ 16
  1.10 Positionality Statement for Qualitative Research .......................................................... 18
  1.11 Overall Thesis Structure ............................................................................................. 22
References ............................................................................................................................... 23

CHAPTER 2: RESEARCH OBJECTIVES AND STRUCTURE .................................................. 34
  2.1 Research Objectives ....................................................................................................... 35
  2.2 Research Structure ....................................................................................................... 36

CHAPTER 3: An exploratory study of veterinary professionals’ self-reported support of bereaved clients before, during and after companion animal euthanasia in Southwestern Ontario, Canada ......................................................................................... 39
  3.1 Abstract .......................................................................................................................... 40
CHAPTER 4: Impacts of the process and decision making around companion animal euthanasia on veterinary wellbeing

4.1 Abstract

4.2 Introduction

4.3 Materials and Methods

4.4 Results

4.5 Discussion

References

CHAPTER 5: An exploration of veterinarians’ use of bond-centered practices during companion animal euthanasia in Ontario, Canada

5.1 Abstract

5.2 Introduction

5.3 Materials and Methods

5.4 Results

5.5 Discussion

References

CHAPTER 6: Exploring pet owners’ experiences, expectations, self-reported satisfaction and grief following companion animal euthanasia

6.1 Abstract

6.2 Introduction

6.3 Materials and Methods

6.4 Results

6.5 Discussion
CHAPTER 7: OVERVIEW, IMPLICATIONS, LIMITATIONS AND FUTURE DIRECTIONS .......................................................................................................................... 154

7.1 Overview of Findings .................................................................................................................. 155
   7.1.1 Importance of emotional support ....................................................................................... 156
   7.1.2 Importance of exploring pet owners’ experiences, expectations and emotions.............. 157
   7.1.3 Characteristics associated with veterinarians’ use of bond-centered care .................... 162
   7.1.4 Training on navigating euthanasia decision-making ....................................................... 163
   7.1.5 Importance of grief-related resources, services and professionals ............................... 164

7.2 Discussion and Management Of Limitations .......................................................................... 166
   7.2.1 Qualitative research ........................................................................................................... 166
   7.2.2 Quantitative research and questionnaire design ............................................................... 166
   7.2.3 Sources of Bias .................................................................................................................. 169

7.3 Future Directions ...................................................................................................................... 171
   7.3.1 Video analysis of veterinary end-of-life care and euthanasia interactions .................... 172
   7.3.2 What constitutes emotional support from a pet owner’s perspective ............................ 173
   7.3.3 Research into veterinary curriculum end-of-life care teaching paradigms ............... 173
   7.3.4 Research into the impacts of grief resources and professionals ................................... 174

7.4 Final Remarks .......................................................................................................................... 175

References ...................................................................................................................................... 177

APPENDICES ................................................................................................................................... 188
LIST OF TABLES

Table 3.1: Participant (n=38) descriptive statistics .................................................................66

Table 5.1. Participants’ (n=368) descriptive statistics. ..............................................................116

Table 5.2. Results of six multivariable ordinal regression models examining the association between veterinarians’ self-reported empathy, years in practice, amount of time scheduled for euthanasia appointments and the extent to which veterinarians’ explore a client’s experiences, expectations and emotions during companion animal euthanasia .................................................117

Table 5.3. Results of ten multivariable ordinal regression models examining the association between veterinarians’ self-reported empathy, years in practice, amount of time scheduled for euthanasia appointments and the extent to which veterinarians’ use various client support practices .................................................................118

Table 5.4. Results of one multivariable logistic regression model examining the association between veterinarians’ (n=368) self-reported empathy, years in practice, amount of time scheduled for euthanasia appointments and the extent to which veterinarians’ use bereavement information and resources ........................................................................................................119

Table 6.1 Participant and companion animal-related descriptive statistics as reported by questionnaire participants (n=2354). .................................................................................................146

Table 6.2 Descriptive statistics reporting whether participants (n=2354) recalled their veterinarian used the following support practices during companion animal euthanasia, and the ranked importance of each support practice (ranked from 1 to 10, with 1 being the most important) .................................................................................................................................147

Table 6.3 Percent of participants’ (n=2354) who agreed and strongly agreed to the eleven statements identified through a previous phase of qualitative research exploring pet owners’ desires/expectations for companion animal euthanasia. .................................................................148

Table 6.4 Results of multivariable linear regression reduced model* assessing associations between pet owners’ (N=2354) experiences and perceptions of companion animal euthanasia and their overall satisfaction following companion animal euthanasia .........................................................................................149

Table 6.5 Participants’ (n=2354) average agreeance (0=strongly disagree; 1=disagree; 2=agree; 3=strongly agree) with 7 question items assessing participants’ grief symptoms adapted from the Pet Bereavement Questionnaire and a resulting measure of participants’ total average grief following companion animal euthanasia. .........................................................................................150

Table 6.6 Results of multivariable linear regression reduced model** assessing associations between pet owners’ (n=2354) experiences and perceptions of companion animal euthanasia and their grief Questionnaire following companion animal euthanasia measured using an adaption of the Pet Bereavement Questionnaire ..................................................................................................................151
LIST OF FIGURES

Figure 2.1 A flow diagram representing the aims and structure of the research .........................37

Figure 5.1 Bar chart demonstrating how often (always; often and sometimes; rarely and never) veterinarians (n=368) in Ontario reported using practices to explore a client’s experiences, expectations and emotions during companion animal euthanasia, as determined through administration of the questionnaire “Exploring Veterinary Professionals Euthanasia Practices” ..............................................................................................................................................114

Figure 5.2 Bar chart demonstrating how often (always; often and sometimes; rarely and never) veterinary professional (n=368) in Ontario reported using practices to emotionally support bereaved pet owners during companion animal euthanasia, as determined through administration of the questionnaire “Exploring Veterinary Professionals Euthanasia Practices” ......................115
LIST OF APPENDICES

Appendix A: Exploring veterinary professionals’ management of companion animal euthanasia and the support of bereaved pet owners and the impact the process of end-of-life care and euthanasia has on veterinary professionals.................................................................186

A1. Phone script for contacting veterinary clinics.................................................................187
A2. Group interviews consent form - Managing veterinary euthanasia and client grief.........189
A.3. Individual interviews consent form - Managing veterinary euthanasia and client grief ....192
A4. Semi-structure interview question guide........................................................................195

Appendix B: An exploration of veterinarians' use of bond-centered practices during companion animal euthanasia ...........................................................................................................................................199

B1. Email script sent to veterinary clinics to inquire about their interest in participating in the questionnaire..............................................................................................................................200
B2. Poster advertisement of the questionnaire.....................................................................202
B3. Reminder email sent to veterinary clinics two weeks after the release of the questionnaire .........................................................................................................................................................203
B4. Online questionnaire tool ...............................................................................................205

Appendix C: Exploring Pet Owners’ Experiences, Expectations, Self-Reported Satisfaction and Grief Following Companion Animal Euthanasia .............................................................................................................228

C1. Advertisement used to invite pet owners to participants in questionnaire......................229
C2. Poster advertisement used to invite pet owners to participants in questionnaire...........230
C3. Online questionnaire tool ................................................................................................231
### LIST OF ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAHA</td>
<td>American Animal Hospital Association</td>
</tr>
<tr>
<td>DVM</td>
<td>Doctor of Veterinary Medicine</td>
</tr>
<tr>
<td>HAB</td>
<td>Human-Animal Bond</td>
</tr>
<tr>
<td>IAAHPC</td>
<td>International Association of Animal Hospice and Palliative Care</td>
</tr>
<tr>
<td>JSE-V</td>
<td>Jefferson Empathy Scale – Veterinary version</td>
</tr>
<tr>
<td>OVC</td>
<td>Ontario Veterinary College</td>
</tr>
<tr>
<td>PBQ</td>
<td>Pet Bereavement Questionnaire</td>
</tr>
</tbody>
</table>

**Note:**

*The terms ‘client’ and ‘pet owner’ are used interchangeably throughout the chapters of this thesis. In some cases, the term ‘client’ was used in place of ‘pet owner’ as this was the preferred style dictated by the target journal. When possible, the term ‘pet owner’ was used.*
PREFACE

Since beginning my endeavor as a graduate student in the Department of Population Medicine at the Ontario Veterinary College, I have had the opportunity to develop both as a researcher and academic. I have gained a greater level of insight and appreciation for the experiences of veterinary professionals and pet owners as they navigate companion animal end-of-life care and euthanasia.

I have always had a strong interest in the veterinary profession, and before selecting to enter my graduate degree, I tailored my education and employment towards entering the Doctor of Veterinary Medicine (DVM) program. During my undergraduate degree, I worked in a variety of veterinary settings including, veterinary clinics, humane societies, diagnostic laboratories and the Ontario Veterinary College referral hospital. This is where my interest in companion animal euthanasia arose. I remember being interested in the unspoken changes that occurred in the climate and tone of my veterinary colleagues when a companion animal euthanasia appointment was being conducted. A normally bustling environment shifted to one which exuded calm and respect. Yet, intermingled was a personal feeling of unease and uncertainty.

It was the contrast between the normally bustling routine of veterinary care which, was so confidently performed by my veterinary colleagues and myself, to this subdued climate of calm uncertainty during companion animal euthanasia which fascinated me. I can remember thinking to myself, ‘Is this how it is supposed to feel?’ ‘How do my colleagues feel?’ Through some informal discussions, I began to unearth similar stories and perspectives. Many stated that, when working with a euthanasia appointment, they try to do their best by respecting the companion animal and owner, but often felt unsure if they were doing it in the right way. These discussions which supported my feelings contributed to a greater interest in this area of care.
With this interest in mind, I continued to pursue entrance into the DVM program. While employed in a veterinary laboratory, I began to look for alternative paths into the veterinary profession and stumbled upon a Ph.D. position advertised on the OVC website. It was here that I met with Dr. Deep Khosa. Through our discussion, it was revealed that she also had a different research position available which had yet to be advertised. This position, which began as an MSc degree and was later transferred into a PhD, sought to explore how veterinary professionals are presently managing the practice of companion animal euthanasia and the support of bereaved pet owners.

As a prior pet owner, who has experienced companion animal loss, and as the research evolved, I also saw the value and potential impact this research could have for pet owners facing or coping with the loss of their companion animal. For these reasons, I felt it was important to incorporate the perspectives of both veterinary professionals and pet owners in my research. By considering and comparing the perspectives of both these stakeholders, a more holistic understanding of the companion animal end-of-life care euthanasia process was established and provided an important foundation for future research.
CHAPTER 1: LITERATURE REVIEW
1.1 Companion Animal Euthanasia and End-of-Life Care

The term euthanasia stems from the Latin words "eu" meaning well and "thanatos" meaning death (Merriam-Webster, 2017). In veterinary medicine, it is ‘the act of allowing or causing the death of a hopelessly sick or injured animal in a relatively painless way for reasons of mercy and our moral principles of not allowing animals to endure insurmountable pain or disease’ (Merriam-Webster, n.d.; Antelyes, 1990). Until the mid-1980s, euthanasia was thought of as a routine medical procedure that should be performed in a medical setting and the involvement of owners was discouraged and even forbidden (Lagoni, 2011). Since then, the relationship between humans and animals has evolved and many pet owners now consider and describe their companion animals as members of the family (Sussman & Cain, 2018). As the human-animal bond has changed, so too has veterinary professionals’ responsibilities (Kolodny, 1991). In 1982, the Executive Board of the American Veterinary Medical Association (AVMA) formally recognized the human-animal bond as a discipline (Lagoni, Butler and Hetts, 1994), in 1993 the American Association of Human-Animal Bond Veterinarians was formed, and in 1999 the human animal bond was recognized as an important element of a successful practice (Brown & Silverman, 1999). Likewise, the emergence of veterinary oncology assisted in further reinforcing the importance the human-animal bond plays in shaping end-of-life care (Lagoni, 2011), and more recently, the 2016 AAHA/IAAHPC end-of-life care guidelines further validated the importance of companion animal end-of-life care which acknowledges the human-animal bond (Bishop et al., 2016). Practices around companion animal end-of-life care will continue to change and evolve with the human-animal bond. Evidence-based research that fully investigates companion animal end-of-life care from the perspectives of practicing veterinarians and the experiences of pet owners can help to facilitate a supportive interaction that reflects the human-
animal bond, meets the needs of the pet owner and veterinary professionals and improves
companion animal care.

1.2 The Human-Animal Bond

The human-animal bond (HAB) describes the relationship which exists between people
and companion animals (American Veterinary Medical Association, 2019). While the concept of
the human-animal bond only began to emerge in the last several decades (Hines, 2003),
companion animals have been intrinsically linked to human civilizations for thousands of years
(Gunter, 1999; Ross, 1994; Enders-Slegers, 2000), and over more recent decades, companion
animals have become increasingly important in human lives (Grier, 2007). Today, more than half
of Canadian and Americans live with companion animals, even surpassing the number of
households with children (APPA National Pet Product Association), and as many as 80-95% of
these pet owners consider their companion animals to be integral members of the family, and the
pets are given sibling or children status (Hetts & Lagoni, 1990; Gunter, 1999).

People’s attention and ultimately attachment to pets are believed to be influenced by
three main factors; 1) anthropomorphism, 2) neoteny and 3) allelomimetic behaviours (Amiot &
Bastian, 2015). Anthropomorphism is the attribution of human-like characteristics such as
feelings and thoughts, to non-humans or objects (Horowitz, 2007; Serpell, 2003; Waytz et al.,
2010). Anthropomorphism can induce empathy, protective behaviours and facilitate bonding
between humans and animals (Horowitz & Bekoff, 2007). Neoteny, defined as the retention of
juvenile characteristics, can further attract humans to animals (Lorenz, 1943). Allelomimetic
behaviours are defined as mimic-like behaviours and have been shown to enhance the probability
of social bonding (Vogel, Scott, & Marston, 1950). For example, a pet may sit, lie down or walk
when an owner does (Vogel et al., 1950). Research suggests that in some cases, attachments to
companion animals are viewed as being more secure than to people (Zilcha-Mano et al., 2011; Cromer and Barlow, 2013). Other research suggests that the changing role and value of companion animals in society is, in part, due to the current trend toward smaller nuclear families (Salmon & Salmon, 1983). With fewer extended family bonds, the human-animal bond has become more valued and has developed into the relationships which exist today (Salmon & Salmon, 1983). While many explanations for the human-animal bond may exist, experts (Kidd & Kidd, 1987; Lagoni et al., 1994) suggest that no one theory is adequate and "the best that can be said is that sometimes, under certain circumstances, and in some ways human-animal relationships are similar to human-human relationships" (Kidd & Kidd, 1987).

The value humans place on the human-animal bond is evident in both the activities and expenses humans are willing to incur to care for their pets. According to the American Pet Product Association (Pet Industry Market Size & Ownership Statistics, 2018), in 2018, pet owners spent close to $73 billion dollars on companion animal expenditures in the United States alone (Pet Industry Market Size & Ownership Statistics, 2018). The addition of animal-friendly spaces in restaurants, hotels and airlines and even the development of designer accessories, clothing, toys and animal-friendly meals allow animals to share in activities once exclusive to humans (Pet Industry Market Size & Ownership Statistics, 2018; Walsh, 2009). Moreover, owners today frequently report giving their animals a holiday present, including them in their holiday celebration, taking them to work, or taking time off work for a sick animal (Pet Industry Market Size & Ownership Statistics, 2018).

Research suggests that pet ownership can also result in many psychological, social and physical benefits for owners. For example, pet ownership has been found to be associated with a decreased incidence of cardiovascular disease (Friedmann & Son, 2009), a decreased sense of
loneliness (Zasloff & Kidd, 1994), increase physical activity (Rogers, Hart, & Boltz, 1993), an increased sense of morale (Goldmeier, 1986), and more frequent social interactions (Wood, Giles-Corti, & Bulsara, 2005). These benefits have even encouraged the integration of companion animals as therapeutic tools in human healthcare through animal-assisted therapy (AAT) (Barker & Wolen, 2008; Beck & Katcher, 2003).

1.3 Grief Associated with Companion Animal Loss

While pet ownership can result in numerous benefits, the close connection we share with our companion animals can also result in emotional repercussions, particularly upon the loss of a companion animal. Due to the shorter lifespan of companion animals, it is inevitable that most pet owners will experience the loss of one or more companion animals in their lifetime (Hart & Hart, 1990; Planchon et al., 2002). In one study from the University of Minnesota, researchers found that the death of a companion animal was the most frequently experienced trauma amongst their 242 surveyed couples (Gage & Holcomb, 1991). The loss of a companion animal can be a substantial source of emotional distress and grief for pet owners (Clements, Benasutti, & Carmone, 2003; Adrian, Deliramich, & Frueh, 2009; Planchon et al., 2002; Quackenbush & Glickman, 1984; Ross & Baron-Sorensen, 1998). In one study, 93% of owners reported experiencing emotional disruption upon the loss of a companion animal and 86% reported experiencing at least one symptom of grief following the loss of a companion animal (Wrobel & Dye, 2003).

As with either human or pet loss grief, the symptoms associated with grief can vary from individual to individual and may include, weeping, pain, anger, loss of appetite, insomnia, depression, withdrawal, preoccupation with the memory of the loss and feelings of guilt and loneliness (Williams and Mills, 2000; McCutcheon and Fleming, 2001; Hewson, 2015). The
intensity and physical expression of grief can also vary with some individuals remaining silent and stoic to others expressing their grief vocally or, in rare cases, experiencing thoughts of suicide (Williams and Mills, 2000; McCutcheon and Fleming, 2001; Hewson, 2015). Feelings associated with grief generally can last anywhere between 6 – 12 months (Quackenbush & Glickman, 1984; Wrobel & Dye, 2003). It is also suggested that grief never really ends as feelings of sorrow may persist long after the loss (Quackenbush & Graveline, 1985). However, strong or debilitating feelings of grief ideally should not usually persist beyond a year and, for the most part, should resolve with effective coping strategies and social support (Quackenbush & Graveline, 1985).

Certain situations, however, can cause an individuals’ symptoms of grief to remain unresolved, leading to complicated grief (Baron-Sorenses & Ross, 1998; Prigerson et al., 1995). Symptoms of complicated grief may include prolonged feelings of grief, functional impairments, agitation, feelings that one's future is meaningless, trouble accepting death, yearning for the deceased, mistrust of others, feelings of emptiness, difficulty moving forward, emotional numbness and bitterness over the death (Prigerson, 1995; Ross & Baron-Sorenses, 1998; Thomas, 1982). Research suggest that many of these symptoms can be harmful and possibly life-threatening to sufferers (Prigerson, 1995; Thomas, 1992; Baron-Sorenses, 1998).

An individuals’ grief severity following companion animal loss has been found to be associated with a several factors including, the circumstance of the death (e.g. unexpected, traumatic, prolonged) (McCutcheon & Fleming, 2001); the strength of the human-animal bond (Archer & Winchester, 1994; Crossley, 2013; Gerwolls & Labott, 1994; Gosse & Barnes, 1994); accumulation of stressful events in the owner's life (e.g. death of a child, bankruptcy) (Crossley, 2013); the presence of social support (Archer & Winchester, 1994; Blazina, 2011; Gosse &
Barnes, 1994; McCutcheon & Fleming, 2001); the individual characteristics of owners, such as their age and gender (Chur-Hansen, 2010; Cowling, 2013; McCutcheon & Fleming, 2001), and their experience during companion animal euthanasia (Adams et al., 1999; Rémillard et al., 2017). Taking these factors into consideration may help veterinary professionals estimate how severe an individual's grief experience may be and furthermore, allow them to respond with appropriate support practices.

Pet loss grief can also be considered to be a form of disenfranchised grief, meaning that it can, in some cases, lack social acceptance, acknowledgement and support. Other examples of disenfranchised grief include terminated or miscarried pregnancies (Lang et al., 2011), bankruptcy and foreclosure (Herrmann, 2011). Disenfranchisement can cause suffers to feel isolated, misunderstood and place them at a greater risk for complicated forms of grief (Meyers, 2002). It is currently estimated that as many as 30% of pet owners experience more complicated forms of grief following companion animal loss (Adams et al., 2000), as compared to only 10-20% of people following a human loss (Middleton et al., 1996; Prigerson et al., 1995). From this perspective, the support provided by veterinary professionals and the owner’s support network are essential sources of support that can assist in reducing pet owners’ risk for complicated grief.

1.4 Pet Owners’ Expectations of Companion Animal End-of-Life Care and Euthanasia

At present, very little is known in the literature about pet owners’ expectations of companion animal end-of-life care and euthanasia. One survey study conducted in Switzerland explored pet owners' expectations of veterinarians in end-of-life care (Fernandez-Mehler et al., 2013). One-third of pet owners participants reported wishing that their animal could die at home, that they wanted to choose the time of euthanasia and would prefer not to be in the waiting room before euthanasia (Fernandez-Mehler et al., 2013). Most pet owners (70%) reported that they
wanted to remain present at the time of euthanasia, 15% would prefer to pay the bill at another
time and 5% desired the ability to talk to the veterinarian sometime after the euthanasia
(Fernandez-Mehler et al., 2013). Forty-two percent of owners also wished to know the exact
protocols used when performing euthanasia (Fernandez-Mehler et al., 2013). In another study
exploring factors influencing the satisfaction of pet owners, staff, and students at a veterinary
teaching hospital, pet owners reported feeling it was most important to receive the option to be
present, that veterinarians and staff should be trained and well prepared to attend to their
emotional needs, that they are provided with a private space and are informed and prepared when
the procedure takes place (Martin et al., 2004).

Research into owners’ expectations of emotional support during euthanasia is presently
limited. Rather, veterinarians, who are considered to be experts in the field of animal hospice,
palliative and end-of-life care, have offered anecdotal knowledge and insight (Lagoni et al.,
1994; Shanan et al., 2017). These experts suggest that pet owners expect the following: to have
trust and confidence in their veterinarian; to receive enough attention and relevant information;
to receive acknowledgement and support around the human-animal bond; to have their
expectations, emotions and concerns heard and validated; to experience compassionate and
empathetic communication; to feel understood by their veterinary professional, and to receive
skilled support throughout their grief (Lagoni et al., 1994; Shanan et al., 2017). When it comes to
the sources of support owners feel they can rely on following the death of a pet, Fernandez-
Mehler et al. (2013) found that 88% of owners felt they could talk about the effects of pet loss
with their family, 67% could talk to friends, 34% could talk to their veterinarian, 15% to their
veterinary technician, and 2% felt that they had no one to talk to. Only 12% of participants
surveyed wanted their veterinarian to discuss information on how they may manage their grief symptoms (Fernandez-Mehler et al., 2013).

Fernandez-Mehler et al. (2013) also explored owners' expectations of their veterinarian around the communication and care of the companion animal's remains. They found that most owners expected their veterinarian to talk about the final destination of their companion animal's remains; 38% expected this to be done early in the companion animal’s life, 50% when the companion animal is old and/or ill and 8% did not want to talk about it at all. Certain information was also more important to owners including, the exact process of rendering their companion animal's remains (39%) and if communal cremation was chosen, where their companion animal’s ashes would be deposited (34%).

Beyond these few studies (e.g. Fernandez-Mehler et al., 2013; Martin et al., 2004) and expert insight (e.g. Lagoni et al., 1994; Bishop et al., 2016; Shanan et al., 2017), there is limited published knowledge of pet owners' expectations of their veterinarian during companion animal end-of-life care and euthanasia. More research is presently needed to better understand owners' expectations during companion animal euthanasia and end-of-life care. A more thorough understanding of these expectations can assist in informing veterinary euthanasia, support the development of evidence-based guidelines and the education of veterinarian professionals around companion animal end-of-life care and euthanasia.

1.5 Impacts of End-of-Life Care on Veterinary Professionals

Veterinarians accept the responsibility of ending the life of companion animals for reasons of preventing unnecessary pain and suffering. The act of companion animal euthanasia and interactions with pet owners during times of end-of-life care can also be difficult for veterinary professionals (Lagoni, 2011). For example, previous research found that 51% of
surveyed veterinarians expressed that they had 'felt guilty' at some time or another after euthanizing an animal (Fogle & Abrahamsom, 1990). “Euthanasia is the most time-consuming and emotionally wearing clinical exchange in which veterinarians are routinely involved” (Sander, 1995). Moreover, it is estimated that veterinarians experience the death of a patient five times more often than their counterparts in human medicine (Hart et al. 1990), largely due to shorter lifespans for companion species in comparison to humans. Research exploring the impacts of euthanasia-related work on animal shelter staff found it can contribute to stress and adversely impact their sense of wellbeing and job satisfaction (Baran et al., 2009; Reeve, Rogelberg, Spitzmuller, & Digiacomo, 2005). Furthermore, a systematic review of studies evaluating the effect of euthanasia-related work on veterinary staff, shelter workers and researchers also determined that those directly engaged in euthanasia are at risk of experiencing greater levels of work stress and lower job satisfaction (Scotney, McLaughlin, & Keates, 2015). Veterinary professionals who exclusively work in private veterinary practices must also cope with the effects of performing euthanasia in the presence of the owner, and as a result, have the additional responsibility of addressing the owner's emotional needs (Hart & Hart, 1990; Lagoni et al., 1994). As such, it is important, in supporting themselves, that veterinary professionals can cope with the emotional impacts associated with companion animal end-of-life care and euthanasia, including the impacts of supporting others through that process. As Lagoni (1994) suggests, veterinary professionals “cannot help others cope with grief until they have helped themselves.”

1.6 Education on the Management of Companion Animal Euthanasia and Bereavement

Previous research has found that topics related to death, dying, bereavement and companion animal end-of-life care are considered to be important topics within the veterinary
curriculum (Dickinson & Paul, 2014; Dickinson et al., 2011). Veterinary students and professionals have also reported that they value their roles and responsibilities related to companion animal end-of-life care (Tinga et al., 2001). Yet, veterinary professionals and students have also reported feeling unprepared to manage aspects of companion animal end-of-life care, particularly communicating with and supporting pet owners (Tinga et al., 2001; Dickinson, Roof and Roof, 2011).

Within the veterinary curriculum of US schools, it is estimated that approximately 15 hours are dedicated to companion animal end-of-life care, death and dying (Dickinson et al, 2010), and in UK veterinary schools, approximately 20.5 hours (Dickinson & Paul, 2004). These averages are comparable to education in human medicine, with an average of 14 hours dedicated to end-of-life care in nursing education (Dickinson, 2006) and 17 hours in US medical schools (Dickinson, 2011).

Topics shown to be most commonly covered in US and UK veterinary schools include communication with owners, how to perform euthanasia, and analgesics for chronic pain (Dickinson, 2010; Dickinson & Paul, 2014). Topics least covered include end-of-life decisions, topics related to bereavement, attitudes towards death and dying, stress, burnout, compassion fatigue, and hospice care, all of which are important topics related to companion animal end-of-life care (Dickinson, 2010; Dickinson & Paul, 2014). In both the USA and UK schools, the modalities of teaching end-of-life care content mostly consisted of seminars, small group discussions, lecture and role-playing (Dickinson, 2010; Dickinson & Paul, 2014), and instructors mostly consisted of veterinarians, and in some cases, social workers, psychologists, human nurses or epidemiologists (Dickinson, 2010; Dickinson & Paul, 2014). In UK and USA veterinary schools historically, these topics have been integrated within other course with only
14% of USA veterinary schools (Dickinson & Paul, 2014) and no UK schools as reported by Dickinson (2010) having separate courses dedicated to topics relevant to end-of-life care. Overall, the existing literature suggests that there are opportunities to enhance the current veterinary curricular offerings related to companion animal euthanasia, end-of-life care and on topics relevant to bereavement, stress and burnout. Opportunities also exist in the modalities and methods in which the topics related to euthanasia are taught.

1.7 Companion Animal End-of-Life Care Guidelines

Several guidelines and publications presently exist to assist veterinary professionals in the management of companion animal end-of-life care and euthanasia (Canadian Veterinary Medical Association, 2014; Bishop et al., 2016; Lagoni et al., 1994; College of Veterinarians of Ontario, 2016; Shanan et al., 2017). Guidelines range in detail and content with some providing comprehensive information on acceptable and unacceptable methods of euthanasia for various species (Leary, Underwood, Anthony et al., 2013), to legal and ethical considerations associated with euthanasia, communication topics, emotional support considerations and potential impacts of end-of-life care on veterinary professionals (Canadian Veterinary Medical Association, 2014; Leary et al., 2013; College of Veterinarians of Ontario, 2016). While these guidelines provide important information on the practical aspects of euthanasia, many are still based on veterinarian experts’ experiences and knowledge, as there is presently a lack of research in these areas. Recent guidelines such as AAHA/IAAHPC 2016 guidelines for end-of-life care (Bishop et al., 2016) and the Hospice and palliative care for companion animals: Principles and practice (Shanan et al., 2017), assist in bridging some of these gaps by offering informational guidance on end-of-life care protocols; however, the authors of these guidelines themselves acknowledge the present lack and need for research evidence (Bishop et al., 2016; Shanan et al., 2017).
1.8 Bond-Centered Care

To further recognize the impacts the loss of the human-animal bond can have on pet owners and veterinary professionals, a different approach to companion animal end-of-life care has emerged which focuses on acknowledging and respecting the human-animal bond (Lagoni & Shanam, 2017; Lagoni et al., 1994; Ormerod, 2008). This approach has been termed "bond-centered" care. Originally defined by sociologists Laurel Lagoni, Carolyn Butler and Suzanne Hetts at Colorado State University (Lagoni & Butler, 1994), bond-centered care is considered to be an approach to veterinary care where "the medical needs of animals and the emotional needs of humans coincide." Veterinarians who practice bond-centered care seek to understand, respect and respond to the significance of animals in their owner’s life (Lagoni et al. 1994).

In human medicine, the counterpart to bond-centered care, known as patient-centered care, has been shown to improve patients' satisfaction, trust, compliance and health outcomes, as well as enhance healthcare providers' reputations, improve staff morale and reduce expenses while increasing profit (Epstein, 2005; Fiscella et al., 2004; Rathert, Williams, McCaughey, & Ishqaidef, 2015; Stewart et al., 2000). Veterinary experts suggest that similar to patient-centered care, bond-centered care can result in greater owner satisfaction, retention and adherence; a greater focus on teamwork; reduction in staff stress; and increased profitability and community perception (Lagoni et al., 1994; Ormerod, 2008; Shanan et al., 2017). There is certainly a potential for bond-centered care to meet the needs of bereaved pet owners and alleviate the emotional strain on veterinary professionals. However, more research is presently needed to better understand, describe and assess the impact of bond-centered care on the companion animal, pet owners and veterinary professionals.
Lagoni et al. (1994) suggest that there are four distinct roles that veterinary professionals play when practicing bond-centered care, the role of 1) a facilitator; 2) an educator; 3) a supporter, and 4) a resource and referral guide. As a facilitator, veterinary professionals should seek to guide pet owners through the process of euthanasia by informing them on important topics such as how the euthanasia will be conducted, what they might expect, as well as responding to pet owners’ questions or concerns. As an educator, veterinary professionals should inform pet owners on their companion animals' prognosis, treatment options, when to make end-of-life decisions and topics related to grief and bereavement. As a supporter, veterinary professionals are relied upon for emotional support, comfort and reassurance through both verbal and non-verbal means. The role of a resource and referral guide is one in which veterinary professionals act as a liaison between the pet owner and additional grief-related resources. Such resources may include written information (e.g. pamphlets, brochures, books), electronic information (e.g. websites) or counselling professionals (e.g. social workers, psychologists). By recognizing and applying these four roles and their associated practices, Lagoni et al., (1994) suggest that veterinary professionals can provide support, relief, guidance and counsel owners through the process of euthanasia and subsequent grief in a manner that is respectful to the owner, the animal and their mutual bond.

Other authors (Bishop et al., 2016; Ormerod, 2008; Shanan et al., 2017) have further reinforced and expanded the recommendations made by Lagoni et al. (1994). Bond-centered care and emotional support recommendations, including associated bond-centered roles, made by these authors include:
Facilitator
- Develop a trusting partnership
- View the entire family as the owner and provide personalized attention and care
- Provide extended appointment times
- Encourage owners to remain present at the time of euthanasia
- Perform euthanasia using ethically approved techniques
- Ensure you, as the veterinarians, and other veterinary staff exude self-awareness, confidence and a positive sense of wellbeing
- Engage in continued education and promote bond-centered care
- Elicit and incorporate feedback from owners and staff

Educator
- Be accessible throughout the end-of-life care process
- Help owners recognize when it is the right time to select euthanasia
- Provide adequate information in a direct and honest manner.

Supporter
- Demonstrate respect for the human-animal bond
- Create an emotionally friendly and comfortable clinic environment
- Be empathetic and compassionate when communicating
- Do not rush owners
- Knowledgeably and confidently respond to clients' supportive needs
- Elicit owners’ feelings, needs and expectations
- Offer support while maintaining a level of professional detachment as owners process their emotional experience
- Validate owners’ perceptions and feelings
- Reassure and soothe owners’ fears and anxieties
- Discuss how children and other pets may grieve
- Commit to making grief support as important as other medical procedures
- Offer cremation and memorialization items
• Provide follow-up care (e.g. condolence card, phone call)

• Provide written information on companion animal loss and bereavement

• Have a staff member with the ability to recognize when an owner is not coping well and the ability to refer them to counselling professionals

While the literature and practices associated with bond-centered care continue to grow and gain traction among professionals who practice companion animal end-of-life care (Bishop et al., 2016; Shanan et al., 2017), research has not yet explored the extent to which veterinary professionals implement bond-centered care practice during companion animal end-of-life care. A greater understanding of veterinarians' use of bond-centered care can provide important insight into how end-of-life care is being practiced and how much of end-of-life care is currently consistent with a bond-centered approach.

1.9 Methodological Approach

To achieve the objectives of the present research, a quasi-sequential exploratory study was conducted. A quasi-sequential exploratory study design is a mixed-methods-like approach characterized by an initial phase of qualitative data collection and analysis which is used to inform a subsequent phase of quantitative data collection and analysis, but the results of the qualitative and quantitative studies are not combined as they would be in a non-quasi sequential exploratory study (Teddlie & Tashakkori, 2009).

The benefits of this approach are that it leverages the strengths of both qualitative and quantitative methodology without the requirement of mixed-methods reporting. The qualitative methodology allows researchers to capture an in-depth understanding of the phenomenon of interests, in this case, the process of companion animal end-of-life care and euthanasia, which is
then used to inform the subsequent quantitative phases of research (Creswell, 2003; Morgan, 1998). An initial qualitative methodology is ideal when little is known about an area of research or phenomenon (Morgan, 1998), such as in the case of companion animal end-of-life care and euthanasia. Since research which explores the current practices and perceptions of veterinary professionals and pet owners is presently limited, the use of a qualitative methodology was essential to gain an in-depth understanding of the process and also to inform the development of a comprehensive questionnaire tool in the subsequent quantitative phase of research. This approach allowed us to gain a more broad and complete understanding of the phenomenon and include statistical representations which may be more widely generalized (Creswell, 2003; Morgan, 1998).

This research consisted of two separate quasi-sequential exploratory studies. The first was conducted with veterinary professionals (i.e. veterinarians and veterinary staff). During the qualitative phase of research, a sample of veterinary professionals (n=38 participants) in Wellington County, Ontario were engaged in group or one-on-one interviews to explore how they presently managed the practice of companion animal euthanasia and the support of bereaved pet owners, as well as the impacts the process of end-of-life care has on them. The outcomes of this qualitative phase are presented in Chapters 3 and 4. Results of the qualitative phase of research were then used to inform the development of an online questionnaire tool that explored a sample of Ontario veterinarians’ (n=368) use of bond-centered practices during companion animal euthanasia; findings of which are presented in Chapter 5.

The second quasi-sequential exploratory study consisted of an online questionnaire tool that was informed by the outcomes from study 1 and focus groups with pet owners (n=35) from the Wellington County-area discussing their experiences, perceptions and expectations of
companion animal euthanasia. The online questionnaire tool was used to survey pet owners (n=2354) about their companion animal euthanasia experience and their perceptions of the impact this experience had on their resulting satisfaction and grief; findings of which are presented in Chapter 6.

1.10 Positionality Statement for Qualitative Research

As a researcher employing qualitative research, it is important to acknowledge my positionality in the research and the topic at hand (Bourke, 2014). The act of examining the research process and the impact the researcher may have had on that process is called reflexivity (Berger, 2015). Reflexivity involves examining and becoming aware of the relationship between the researcher and research and understanding the effects, either intentional or unintentional, a researcher may have on the research (Berger, 2015). By exploring this relationship, credibility and reliability to the research is explored (Jootun, McGhee, & Marland, 2013). Since the researcher is the instrument through which data is collected (Jootun et al., 2013), it is reasonable to assume that the researchers' view, values, beliefs, experiences and background may in some way influence the research and are, therefore, important to consider. Research suggests that a researchers' positionality can affect the research in three major ways: 1) it can affect the researchers’ access to participants; 2) the participants' willingness to share information; and 3) the way in which the researcher poses questions or the lens through which they look at the information, findings and conclusions of the study (Berger, 2015).

Considering this, there are three main influences I would like to acknowledge and are pertinent to this research and my position within it. First, I am a previous pet owner who has experienced the loss of my pet. Second, I have worked and been employed in the veterinary industry including veterinary clinics, humane societies, a diagnostic laboratory and the OVC
referral hospital, and third, my characteristics as a late-twenties, Caucasian female student researcher may also impact my positionality. As I reflected on these influences, I asked myself, what role did these experiences and beliefs play in my research? How did I use these experiences throughout my research? Did these experiences influence the interaction I had with my participants or how I viewed the research and data?

I would like to address the influences of my experiences in the veterinary industry first. Starting at a young age, I was drawn to the veterinary world and aspired to enter the OVC DVM program. As previously described, to achieve this objective, I obtained employment in a variety of veterinary settings. Through these experiences, I gained various levels of exposure to the process of companion animal euthanasia, always from the perspective of the veterinary profession. This is where my interest in the practice of euthanasia came to light. As I progressed from one area of employment to the next, this interest continued. Later, through contact with Dr. Deep Khosa at the Ontario Veterinary College, I got the chance to pursue my interest in the practice of euthanasia during a Master's (MSc) degree, which was later transferred from a MSc into a Ph.D.

When I began this research, I started from the position of a student researcher who was familiar with the processes involved within veterinary clinics and the process of companion animal euthanasia but had minimal insight into why euthanasia is practiced the way it was and the impact it can have on veterinary professionals and pet owners. My subjective experiences helped to shape the lens through which I approached this research. From one perspective, I believe these experiences were of great benefit to me and the research because it allowed me to develop a passion for this research early on and carry it forward. Moreover, my experiences in the veterinary profession gave me a baseline understanding of the processes and practices
associated with companion animal euthanasia. This understanding helped me feel comfortable, connected and confident when interviewing my veterinarian participants, which I feel in turn, allowed them to feel comfortable with me. From another perspective, it can be difficult to set aside your subjective insights and not actively seek out the answers you are looking for. When entering each interview, I purposefully set aside my prior subjective experiences and opinions and focused on listening deeply to the stories my participants were telling me. In this way, I let the participants guide the flow of the conversations, allowing them to decide what was important to discuss and share, while also maintaining a loose structure using the question guide. I noticed that this approach worked well with my participants as they began to open up to me and one another and share their perspectives on companion animal euthanasia and the impacts it had on their sense of wellbeing. This was especially important since topics related to companion animal euthanasia, stress, fatigue and burnout can be difficult to discuss.

The second influence I would like to acknowledge is being a pet owner who has previously lost a companion animal (my family’s 5-year old Shih Tzu, Brody Theodore Matte) due to a complication with Intervertebral Disc Disease (IVDD). While I was not able to be present at the time of euthanasia, I believe that the loss I experienced that day allowed me to position myself well in my research. I feel I was able to relate to, understand, sympathize and empathize with my pet owner participants as they described their experiences with companion animal euthanasia and loss. This allowed me to form a mutual connection with my participants and provide a sense of comfort and support as they opened up and shared their experiences. I believe that this experience was vital to opening a trusting dialogue with my pet owner participants and also allowed me to look at the research from the lens of a pet owner.
Lastly, as a young female just beginning her research career, I felt it was important to exude a calm and supportive confidence when interacting with my participants. Being young and a novice in research methodologies, I didn’t want participants to doubt me. To counteract any doubt, I dressed in a business casual manner and thoroughly discussed my role and the research objectives before conducting each interview. On a few occasions, participants expressed interest in hearing my advice on how they could better support pet owners or sought insight into how veterinarians are educated on companion animal euthanasia. In each situation, I used discretion when disclosing information which might alter the direction of the interviews, and instead held a short question and answer period following each interview to resolve any of the participants’ queries. I felt this method was effective at keeping the interviews on track and, by minimizing distractions, allowed participants to reach greater levels of depth when sharing their stories.

In addition to my positionality, my advisor, Dr. Deep Khosa, whose guidance was instrumental in this research, was a practicing veterinarian for 17 years before entering academia, and now actively teaches veterinary students on clinical skills. As a veterinarian and pet owner, she has experienced both sides of companion animal end-of-life care and euthanasia. Her insight and experiences have helped to shape how the research was conducted, viewed and authored, and enhanced my ability to present this research in a clinically valuable manner.

I believe that all of these factors, my experience working in the veterinary profession, the loss of a beloved companion animal and the support from my advisor, have allowed me to be a better researcher, particularly when researching the topic of companion animal euthanasia. It has allowed me to relate and connect with both of my participant groups, which I believe allowed the collection and presentation of rich and detailed accounts of my participants’ experiences, opinions and expectations related to companion animal end-of-life care and euthanasia.
1.11 Overall Thesis Structure

The aims and overall thesis structure are presented in Chapter 2. Chapters 3, 4, 5 and 6 each present the four research papers encompassed in this thesis. Chapter 7 provides a discussion of the main conclusions including clinical and educational implications, future research and limitations of this research.
References


Adams, C. L., & Frankel, R. M. (2007). It may be a dog's life but the relationship with her owners is also key to her health and well being: communication in veterinary medicine. Veterinary Clinics: Small Animal Practice, 37(1), 1-17.


Beach, M. C., Inui, T., & Relationship-Centered Care Research Network. (2006). Relationship-centered care: a constructive reframing. Journal of general internal medicine, 21(S1), S3-


https://doi.org/10.1007/978-1-4419-9761-6_11


https://doi.org/10.1192/bjp.169.2.167


https://doi.org/10.1177/104973239800800307


https://doi.org/10.3138/jvme.35.4.545


https://doi.org/10.1080/00224545.1993.9712145


https://doi.org/10.1089/jpm.2005.8.1186


https://doi.org/10.1163/156853003321618864


http://www.jfponline.com/Pages.asp?AID=2593&UID=


https://doi.org/10.1037/a0020240


https://doi.org/10.1016/j.socscimed.2005.01.017


CHAPTER 2: RESEARCH OBJECTIVES AND STRUCTURE
2.1 Research Objectives

The following provides an outline of the studies, objectives and associated papers of the research in this thesis.

**Study 1:** Explore how veterinary professionals are presently managing and practicing companion animal end-of-life care and euthanasia

- **Objective 1:** Qualitatively explore how veterinary professionals presently support bereaved pet owners before, during and after companion animal euthanasia.
- **Objective 2:** Qualitatively explore how veterinary professionals feel the process of euthanasia-related care impacts their sense of wellbeing.
- **Objective 3:** Quantitatively explore the extent to which veterinary professionals are presently practicing companion animal euthanasia and supporting bereaved pet owners using bond-centered care.

**Study 2:** Explore pet owners’ experiences, perceptions, expectations, satisfaction and grief following companion animal euthanasia. Using the outcomes of Study 1 and the results of focus group interviews with pet owners, a questionnaire was designed to:

- **Objective 1:** Quantitatively explore and describe pet owners’ euthanasia experiences and expectations related to companion animal euthanasia.
- **Objective 2:** Quantitatively assess pet owner’s satisfaction with the practices used by their veterinarian and their overall euthanasia experience.
- **Objective 3:** Quantitatively assess participants’ grief following euthanasia.
• **Objective 4:** Quantitatively identify associations between participants’ perceptions of the euthanasia experience and their overall satisfaction and grief following companion animal euthanasia.

2.2 Research Structure

The first objective of Study 1 was addressed in Paper 1. It involved group and one-on-one interviews with veterinary professionals (i.e. veterinarians and veterinary staff). Results from this study are reported in Chapter 3: An exploratory study of veterinary professionals’ self-reported support of bereaved clients before, during and after companion animal euthanasia in Southwestern Ontario, Canada.

The second objective of Study 1 was addressed in Paper 2. The same group and one-on-one interviews used in Paper 1, were used for Paper 2. Results are presented in Chapter 4: Impacts of the process and decision making around companion animal euthanasia on veterinary wellbeing.

The third objective of Study 1 was addressed in Paper 3. The results from Paper 1 and 2 were used to inform the development of an online questionnaire tool surveying veterinarians in Ontario on their use of bond-centered practices. This work is presented in Chapter 5: An exploration of veterinarians’ use of bond-centered practices during companion animal euthanasia in Ontario, Canada.

Study 2 and the four associated objectives were addressed in Paper 4. The study explored pet owners’ experiences, perceptions, expectations, satisfaction and grief following companion animal euthanasia. This work is presented in Chapter 6: Exploring pet owners’ experiences, expectations, self-reported satisfaction and grief following companion animal euthanasia.
Figure 2.1 represents an overview of the research structure presented in this thesis. The diagram provides a visual representation of the relationship between the research objectives, studies and resulting papers.
Study 1: Explore how veterinary professionals are presently managing and practicing companion animal end-of-life care and euthanasia

Objective 1: Qualitatively explore how veterinary professionals presently support bereaved pet owners before, during and after companion animal euthanasia

Objective 2: Qualitatively explore how veterinary professionals feel the process of euthanasia-related care impacts their own sense of wellbeing

Objective 3: Quantitatively explore the extent to which veterinary professionals are presently practicing companion animal euthanasia and support bereaved pet owners using bond-centered care

Paper 1: An exploratory study of veterinary professionals’ self-reported support of bereaved clients before, during and after companion animal euthanasia in Southwestern Ontario, Canada
Target Journal: OMEGA – Journal of Death & Dying
Audience: Veterinary professionals, social workers

Paper 2: Impacts of the process and decision making around companion animal euthanasia on veterinary wellbeing.
Target Journal: Veterinary Record
Audience: Veterinary professionals, researchers, social workers

Paper 3: An exploration of veterinarians’ use of bond-centered practices during companion animal euthanasia in Ontario, Canada
Target Journal: Veterinary Record
Audience: Veterinary professionals, researchers

Study 2: Explore pet owners’ experiences, perceptions, expectations, satisfaction and grief following companion animal euthanasia.

Objective 1: Quantitatively explore and describe pet owners’ euthanasia experiences and expectations related to companion animal

Objective 2: Quantitatively assess pet owner’s satisfaction with the practices used by their veterinarian and their overall euthanasia experience

Objective 3: Quantitatively assess participants’ grief following euthanasia

Objective 4: Quantitatively identify associations between participants’ perceptions of the euthanasia experience and their overall satisfaction and grief following companion animal euthanasia.

Paper 4: Exploring pet owners’ experience, self-reported satisfaction and grief following companion animal euthanasia
Target Journal: Veterinary Record
Audience: Veterinary professionals, researchers, social workers

Figure 2.1 A flow diagram representing an overview of the research
CHAPTER 3: An exploratory study of veterinary professionals’ self-reported support of bereaved clients before, during and after companion animal euthanasia in Southwestern Ontario, Canada


* client’ is used in replacement of the term ‘pet owner’ in the present chapter
3.1 Abstract

Veterinary professionals are recognised as an important source of support for many veterinary clients, particularly during companion animal euthanasia and end-of-life care. While many veterinary professionals recognize the importance of their role, many also report feeling unsure about what methods of support are most effective. Furthermore, few evidence-based guidelines currently exist to inform veterinary professionals on the support of grieving clients. To begin bridging this gap, the present study qualitatively explored how veterinary professionals currently report supporting grieving clients before, during and after companion animal euthanasia. Findings suggest that veterinary participants in this study strive to be meaningful sources of support for grieving clients and employ an array of support practice to do so. However, opportunities exist for veterinary professionals to better explore clients’ needs, expectations and feelings as they relate to companion animal euthanasia, including offering more grief-related resources and access to professional counselling services.

3.2 Introduction

The significance of the modern human-animal bond continues to greatly influence veterinary medicine and clients’ expectations of veterinary medicine (Brown & Silverman, 1999; Knesl, Hart, Fine, & Cooper, 2016; Prasse, Heider, & Maccabe, 2007). Clients’ expectations may be most evident and perhaps even heightened during the practice of companion animal euthanasia. As past research has shown, veterinary professionals are not only responsible for the medical needs of companion animals, but increasingly also the emotional needs of clients (Hart & Hart, 1990; Lagoni, Butler, & Hetts, 1994; Shaw & Lagoni, 2007; Morris, 2012; Fernandez-Mehler et al., 2013; Bishop et al., 2016). While previous research suggests that most clients are satisfied with the euthanasia procedure itself (Martin et al., 2004), one study found that 24% of
clients who contacted a pet loss hotline reported negative encounters with their veterinary professionals during a companion animal euthanasia-related interaction (Rémillard, Meehan, Kelton, & Coe, 2017). Findings from that study and others have reported that many of these negative encounters are a result of behaviours displayed by the veterinary professional. Examples of negative encounters described in these studies included: a lack of compassion from the veterinarian; inappropriate or emotionally-insensitive communication; and a lack of acknowledgement of the existing human-animal bond (Adams, Bonnett, & Meek, 1999; Fernandez-Mehler et al., 2013; Martin et al., 2004; Rémillard et al., 2017). The importance of professional behaviours has been demonstrated in previous research where characteristics such as compassionate and caring attitudes were ranked first by clients in a list of traits considered to be essential for a successful euthanasia (Martin et al., 2004). Furthermore, when veterinary professionals do not demonstrate these desirable traits or inappropriately manage euthanasia, clients may experience dissatisfaction with their veterinarian, are at increased risk of complicated grief, and may have a decreased willingness to continue a relationship with the veterinarian or veterinary clinic (Adams et al., 1999; Fernandez-Mehler et al., 2013).

While it is recognised that euthanasia can be a source of great emotional stress for veterinary clients, Hart & Hart (1987) suggest that providing emotional support to clients can also be a source of stress for veterinary professionals themselves. Research exploring the impact of euthanasia-related work on animal shelter staff found that euthanasia can contribute to stress, adversely impact staff wellbeing and job satisfaction (Baran et al., 2009; Reeve, Rogelberg, Spitzmuller, & Digiacomo, 2005). Furthermore, a systematic review of studies evaluating the effect of euthanasia-related work on veterinary staff, shelter workers and researchers also determined that those directly engaged in euthanasia are at risk of experiencing greater levels of
work stress and lower job satisfaction (Scotney, McLaughlin, & Keates, 2015). A key difference between animal shelters and veterinary clinics is that veterinary professionals in clinics are most often performing euthanasia in the presence of the client and have the additional responsibility of addressing the client’s emotional needs (Hart & Hart, 1990; Lagoni, Butler, & Hetts, 1994; Shaw & Lagoni, 2007; Morris, 2012; Fernandez-Mehler et al., 2013; Bishop et al., 2016). While most veterinary professionals report that providing emotional support is an important aspect of their professional responsibilities (Butler, Williams, & Koll, 2002; Dickinson, Roof, & Roof, 2011), many have also expressed uncertainty as to how they might best address and manage the emotional needs of bereaved clients (Adams, Conlon, & Long, 2004; Butler et al., 2002; Dickinson et al., 2011; Tinga, Adams, Bonnett, & Ribble, 2001).

As companion animal euthanasia is most often performed by a team of veterinary staff members (Shanan, Pierce, Shearer, & Wiley, 2017), it is important that each staff member clearly understands their roles, responsibilities and receives adequate training in methods which may assist them in effectively communicating and supporting clients (Lagoni et al., 1994; Shanan et al., 2017). The ability for veterinary professionals and staff to receive adequate training in their roles can assist in fostering a system of teamwork that can assist in ensuring euthanasia proceeds smoothly (Lagoni et al., 1994). A smooth euthanasia procedure which includes support for clients, companion animals and veterinary staff can lead to improvements in staff confidence and job satisfaction, assist in alleviating client grief, improve client satisfaction, and benefit the practice as a whole (Adams et al., 1999; Fernandez-Mehler et al., 2013).

Currently, few evidence-based guidelines exist to support veterinary professionals and staff in the management of clients’ emotions related to companion animal euthanasia. A variety of guidelines exist both nationally and provincially, however, many of the current
recommendations related to the support of clients are still largely informed by expert knowledge (Leary et al., 2013; Canadian Veterinary Medical Association, 2014; The College of Veterinarians of Ontario, 2016; Bishop et al., 2016). Considering that many veterinary professionals report feeling unsure about how best to provide emotional support (Tinga et al., 2001; Butler, Williams and Koll, 2002; Adams, Conlon and Long, 2004; Dickinson, Roof and Roof, 2011), it may be reasoned that more specific and detailed recommendations may better assist in preparing veterinarians and veterinary staff to support and communicate with bereaved clients. As such, exploring and learning about the support practices presently used by veterinary professionals during companion animal euthanasia is important. Such insight can help determined which practices might be considered most or least effective, areas in need of attention or change and furthermore, assist in informing future guidelines. A better understanding of these practices is presently needed to assist in informing specific and detailed guidelines about the technical and nontechnical aspects of the euthanasia process with attention to the emotional support of clients. A greater knowledge in this area has the potential to reduce negative interactions between clients and veterinary staff (Fernandez-Mehler et al., 2013; Rémillard et al., 2017), lessen clients’ grief (Adams et al., 1999) and the emotional burden on veterinary professionals themselves (Baran et al., 2009; Reeve et al., 2005; Scotney et al., 2015).

As part of a larger research project exploring how veterinary professionals are currently managing the practice of companion animal euthanasia and addressing the supportive needs of bereaved clients, the findings presented here provide an account of how participants presently address the emotional and supportive needs of grieving clients before, during and after companion animal euthanasia. Given this is also an underexplored area of research with very limited previous reports and findings, a qualitative methodology was purposefully selected to
develop a detailed understanding of veterinary participants’ perspectives on companion animal euthanasia and methods of client support. As such, the research questions are not hypothesis-generating, and hypothesis testing is not possible or necessarily applicable in this instance.

3.3 Methods

The purpose of the current study was to explore how veterinary professionals currently address the emotional and supportive needs of grieving clients before, during and after companion animal euthanasia. To gain an in-depth perspective, a qualitative research design utilizing a basic interpretive approach was employed. Study protocols were approved by the institution’s research ethics board (REB#14MY006).

3.3.1 Participants

A list of companion animal veterinary clinics (n=84) within 25kms of the Ontario Veterinary College was accessed from the College of Veterinarians of Ontario (CVO) online Public Register. Clinics were randomized in Microsoft Excel® Version 16.24 (2017) software and contacted via telephone and invited to participate in the study. Participants from each clinic were collectively provided with the option to participate in either a group or one-on-one interview format. Participants from nine clinics selected group interviews and one clinic selected an individual one-on-one interview format. All interviews took place between March and June of 2016. Consent was provided by all participants before the interviews.

3.3.2 Interview structure

Interviews occurred at the location of each veterinary clinic and followed a semi-structured question guide. The moderator wrote notes during interviews to keep track of conversation and details. Demographic information was collected from all participants using a survey developed by the researchers. All interviews were audio-recorded, transcribed verbatim
by the first author or a professional transcriptionist, and de-identified to ensure that transcripts could not be linked to individual participants. Quotes belonging to each participant were identified using a sequential number-letter combination, i.e. A1 is identified as the interview “A”, participant #1. The term “veterinary professional” is used to denote all veterinary staff members including veterinarians, veterinary technicians, and other support staff. Specific titles such as veterinarian are used to identify individuals. Data saturation was reached at ten interviews when it was found that no new information was being collected during the final interview (Braun & Clarke, 2006). One-week post-interview, a follow-up email was sent to clinics inquiring whether the clinic participants wanted to add information they thought was missed during the interviews. Only one clinic responded with minor additional information.

### 3.3.3 Data Analysis

Demographic information was analyzed using descriptive statistics. Transcripts were organised using NVivo 12® software and subsequently analyzed using thematic analysis (Braun & Clarke, 2006) by the first author. In brief, transcripts were read multiple times ensuring familiarity, code words were applied to sections of text to represent concepts participants were describing (e.g. opinions, procedures, ideas), similar concepts were then grouped, further classified into themes and subthemes and described in a codebook. As part of the analytical process, the relationships between themes and subthemes were mapped. Themes, subthemes, codes and the thematic map were systematically reviewed, named and defined by the first author. The final data analysis process involved a comprehensive review process involving the first and second authors. Authors reviewed individual codes, themes, subthemes, their attributed names and the overall relationship among themes.
3.4 Results

A total of 38 participants, including veterinarians, veterinary technicians, veterinary assistants, veterinary receptionists, practice managers and, client care specialists participated in ten interviews. Interviews ranged from 27.3 to 81.5 minutes (mean = 60.18 minutes) in length. Additional demographic information reporting age, gender, employment position, years at the current clinic and years in the veterinary profession can be found in Table 3.1.

3.4.1 Support by Considering and Accommodating Companion Animal And Clients’ Needs Before Euthanasia

Participants across all interviews described how support is integrated into many different stages of the euthanasia appointment, from the moment the euthanasia is scheduled to when the client leaves the clinic. Participants explained that one method of support before clients have even arrived is to consider and accommodate both the physical and emotional needs of both the companion animal and the client. For example, when scheduling the euthanasia appointment, many participants explained that they try to consider and accommodate the client’s needs by booking the euthanasia appointment at a time which is most convenient for the client, as one participant explained, “I try to do whatever time works for them” (I6). Participants also suggested that certain times of the day, such as the morning before regular appointments begin, over lunch and as the last appointment of the day, are times better suited for euthanasia appointments since they are less busy allowing additional quiet, time and privacy. As a participant explained “I don’t want to squeeze it in when we are busy … at a time like that or have a loud clinic” (I8). All participants also described the feeling that it was important that clients are never rushed through any stage of the appointment, “we never want to make them feel rushed. We tell them to take as long as you want” (I7).
Participants described preparing the clinic or clinic space before the client and companion animal arrives. For more than half of the clinics, this meant preparing their designated euthanasia room, often referred to as the “comfort” or “quiet” room. Participants described these rooms as being more home-like and comfortable, “it’s kind of more comfortable, more lounge-like rather than the look of a medical appointment room” (A1). Other participants described using existing exam rooms. Regardless of the room used, all participants described preparing these rooms with consideration for the comfort and needs of the clients and companion animal, “we’ll make sure that there’s a blanket there for the animal and that it’s clean and Kleenex and everything” (I1). Participants felt that it was important that the setting was peaceful and respectful of the experience. In addition to considering the environment, participants also felt that upon the client’s arrival, they would appreciate being greeted immediately and ushered to their designated room so that, “they’re not having to wait out front with the puppies and everything else that’s going on” (E1).

3.4.2 Support by Informing and Preparing Clients Before and During Euthanasia

It became clear that providing accurate information was central to client support. Participants described providing information verbally as a way to support or comfort the client. For example, all veterinarian participants explained that they always fully prepare clients for the process of euthanasia and discuss such topics as, the protocols they will use, potential physical reactions from the animal, and the period of time in which the animal will take to pass. Participants explained that this conversation is intended to ensure that the client is prepared and aware of what to expect. As described by one veterinarian participant,
I usually explain the process, what’s going to happen… then they know what to expect. I think sometimes they just feel a little bit more like, okay this is it; this is what’s going to happen and, are a little more at ease. (G2)

In some cases, participants did describe discussing other topics such as, the client’s comfort witnessing or remaining present for the procedure. As one participant described, “we give the client the option to be present for the procedure or not. It’s up to them” (A1). In another case, a participant described inquiring about a client’s past experience with euthanasia or death, stating “I ask them if they’ve been through this procedure before” (J2). As the participant continued to describe, based on the client’s response, they then tailor their conversation, “If they haven’t, or if they have, I ask if they have any questions or anything like that. If they haven’t been through it before, I like to go through the basic steps of what happens during the euthanasia” (J2).

Participants also explained that while informing clients, they wanted to be clear and detailed. For example, as one participant explained, “I want them to understand this is a procedure for humane euthanasia and they are authorizing that, and that means humane death” (F1). Participants expressed that they want to be clear and unambiguous so that clients understand what it means to euthanize an animal and there is no misunderstanding in the terminology used, “so that there’s no words like put to sleep or something that someone could misconstrue” (F1). However, participants also felt that it is important to be sensitive when discussing euthanasia, especially when discussing topics related to the care of the companion animal’s body. Specifically, participants felt that when discussing body aftercare, too much or certain details could possibly be upsetting to clients, “I try to be as specific and kind as I can be,
without it being traumatic for them” (F1). Instead, in this instance participants described the use of terminology they felt was more sensitive, like, “cooling area” or “cold storage” or “body bag”. By using such language, participants felt that they could temper the client’s perception of the process, as a participant explained, “It’s bending to fit what their perception of the experience should be” (H1).

3.4.3 Verbal and Non-Verbal Support Techniques During Euthanasia

Participants described using both verbal and non-verbal support techniques to support clients, such as offering sympathy and empathy. One of the most commonly used techniques described by participants was reassurance. Participants frequently described using reassurance when helping clients justify their decision to select euthanasia, as one participant explained, “we make the attempt to try and justify it saying, it’s okay you are doing the right thing so that they definitely feel correct” (D1). Across all interviews, participants also described normalizing and validating the client’s emotions. As one participant described, “I say, it’s okay to cry for them because everybody should have somebody cry for them. It’s okay. It’s all, this is all okay. This is sad and awful, but it’s okay” (C1). Participants also described normalizing emotions a client may not be outwardly expressing, such as a sense of relief. As explained,

If there’s been a lot of caregiving going on too I sometimes say, you know what, sometimes with these things, it’s a bit of a relief you know, because you’ve had to put in so much time and you shouldn’t feel bad if you feel some relief…it’s okay to feel like that. It’s normal. (E3)
Many participants also shared their own experiences of pet loss with clients to relate to and normalize the client’s emotions. As the participant explained,

I first let them know that I have been through it too and what that day was like. It’s very hard. It’s hard to come to that decision. Even being a veterinarian it’s still hard and it’s still hard after. It hurts and it’s a sad day. (F1)

Other participants described expressing their own emotions and crying along with the client. As one participant explained,

I cry right along with the client. And I think they get; I think they honestly get comfort out of that because they realize that it’s okay to be upset because they look at this person beside me who doesn’t even really know my pet and she’s upset. (H2)

Support practices also often involved non-verbal behaviours or actions. For example, most participants described using physical contact to support clients such as placing a hand on the client’s shoulder or offering a hug. Other participants also felt that support could be provided without words, “I try to comfort them with words and sometimes it means silence as well” (A1). Participants also felt that the way they spoke to clients was important. For example, many participants described using softer and quieter tones and considering their demeanor when speaking with clients. As one participant explained, “I try to speak in a soft, compassionate voice” (E5).
3.4.4 Support After Euthanasia Through Follow-Up

Across all interviews, participants described following-up with clients after euthanasia. For example, participants from each clinic indicated that they followed-up with clients by sending condolence cards. In some cases, additional items such as poems or photos were added along with the condolence card. As a participant described, “Everybody does get a sympathy card with a [poem] and if we have a picture of the pet then I put a picture of the pet on the poem page” (H2). A few participants also described following-up by calling clients,

I call the people and say, ‘Hi, I am just calling to check in on you. How are you doing? I am just letting you know that we are obviously thinking about you during this sad time and you know, is there any support that you need?’ (A1)

For the most part though, participants only described calling clients when they thought the client might require more support, “[for] some clients we will check on by phone the next day… we kind of worry about them and call” (B1), or, “if there are ashes or special items coming back, we call just to say it has been returned” (G2).

Participants explained that when considering how they follow-up with clients, time is often a limiting factor, “I think we could do better at follow-up phone calls but that is somewhat a staff time limitation” (G1). Additionally, participants also expressed uncertainty in which method clients would appreciate, “I think it’s also a hard area to read with clients, many of them would perhaps prefer a card. So, we need to get a better sense of who should be called and who should be given a card” (G1). Many other participants agreed, that beyond sending a condolence card, additional contact methods depended on the client. As one participant described, “A lot of
it is again, very individualized on a patient, on the person, on the relationship with the clinic as well, that we will send flowers, donations to either the humane society or Pet Trust” (E1).

Regardless of the follow-up, many participants agreed that follow-up allows staff to offer additional condolence and also allows continued contact with the client, as a participant stated, “I don’t want you to feel that just because your animal has passed away that our support stops there. Please call me” (F1).

In addition to feeling there were limits on how to follow-up with clients, participants also felt that there are definite limitations on the emotional support they were able to provide. As one participant stated very simply, “There are boundaries. We are not trained as psychologists. We are not trained as grief counselors…there’s a fine line between substituting for a professional counselor and just being there to listen” (F1). This opinion was widely held by other participants, as one succinctly stated, “I think we have to be careful as veterinarian staff to not fall into that trap of thinking we can counsel clients because I don’t think we should” (E1). Further suggesting that when support limits are reached, they should, “assess and refer [clients] if we’re worried” (E1). However, few participants described being aware of any professional resources beyond a pet loss hotline. Some participants reported that their clinic sometimes offers other resources such as pamphlets and brochures on grief and bereavement which were on display in the euthanasia room. Participants felt that they rarely had to provide these resources to clients unless otherwise prompted by a client or if they were previously aware that the client may need additional support. As one participant described, a client had suffered the previous loss of a child and the staff at the clinic felt that they were unable to support the owners to the extent they needed. Thus, the participant felt that a professional counsellor would better meet the client’s needs, stating, “they really needed a psychologist” (E1).
3.5 Discussion

Findings of the present study provide insight into how veterinary professionals currently support bereaved clients before, during and after companion animal euthanasia. Participants described employing an array of methods to support clients including creating a working environment that caters to the medical needs of the companion animal as well as the emotional needs of the client; using verbal and non-verbal support and communication; and through forms of follow-up such as, sending condolence cards or contacting clients by telephone. The various modes by which participants described supporting clients suggests that veterinary professionals strive to be meaningful sources of support for grieving clients throughout euthanasia. Many of these practices also align with what is commonly known in veterinary medicine as bond-centered care (Lagoni, Butler, & Hetts, 1994; Ormerod, 2008; Shanan et al., 2017). Described by Lagoni et al. (1994), the mission of bond-centered care is to provide simultaneous medical and emotional care to animal patients and their clients in a manner that acknowledges the human-animal bond. The benefits of bond-centered practices are numerous. Clients who receive bond-centered support are less likely to experience severe bereavement reactions, are more likely to adopt again and sooner, are more likely to remain at the same veterinary clinic and encourage other clients to register with that veterinary clinic (Ormerod, 2008). Additionally, teamwork may be improved, reduce staff stress, increase job satisfaction and more (Ormerod, 2008). Consistent with many bond-centered recommendations (Lagoni, Butler, & Hetts, 1994; Ormerod, 2008; Shanan et al., 2017) and findings from other research (Pilgram, 2010; Dickinson, Roof, & Roof, 2011; Morris, 2012; Fernandez-Mehler et al., 2013), results of the present study further reinforces veterinary participants’ commitment to delivering medical and emotional care to animals and their human counterparts. These findings further add to current literature (Lagoni,
Butler, & Hetts, 1994; Ormerod, 2008; Pilgram, 2010; Morris, 2012) and offer an opportunity for veterinary professionals to consider how they currently support bereaved clients within their practice.

A number of the methods by which participants in the current study described supporting clients was through what is commonly known in bond-centered care as “facilitation” (Lagoni, Butler, & Hetts, 1994). As a facilitator, veterinary participants guide clients through the euthanasia process in a structured manner, but also sensitively manage clients’ emotions as they arise (Lagoni, Butler, & Hetts, 1994; Shanan et al., 2017). In the current study, participants consistently explained that they paid particular attention to this role, ensuring that they prepare a comfortable clinic space, display compassionate and respectful demeanors and inform clients on the process of euthanasia. Other studies have reported similar practices (Pilgram, 2010; Morris, 2012). Bond-centered care researchers suggest that facilitation is one of the most important roles which veterinary professionals play during end-of-life care (Lagoni & Butler, 1994; Shanan et al., 2017). Indeed, this is also represented in many of the current guidelines which govern the practice of companion animal euthanasia as they also contain many facilitative recommendations (Leary et al., 2013; Canadian Veterinary Medical Association, 2014; The College of Veterinarians of Ontario, 2016; Bishop et al., 2016). In the current study, participants’ attentiveness to their responsibilities as a facilitator suggests that veterinary professionals also feel that this is a vital component of client support. In their practices, veterinary professionals are encouraged to reflect on their role as a facilitator and consider how their facilitative practices might support both the companion animal, client and themselves.

In terms of managing the emotions that arose for clients during companion animal euthanasia, participants described employing a variety of verbal and non-verbal support
techniques. These included techniques such as offering sympathy, empathy, reassurance, normalizing and validating emotions, and physical contact. While other studies have reported similar findings (Pilgram, 2010; Morris, 2012), research has yet to examine the effectiveness of these techniques in the management of client grief. In veterinary medicine, much of the literature focuses on the use of empathy as an important support technique to establish rapport, build trusting relationships and demonstrate supportive communication (Frankel, 2006; Shaw & Lagoni, 2007). While empathy is vital to compassionate relationships, more research is needed to better understand how other forms of communication and support impact the emotional experience of clients. The process of grief and bereavement itself can vary widely among individuals (Quackenbush & Glickman, 1984), as a result, future research may also wish to examine the effectiveness of different support techniques based on a client’s background, beliefs, and the existing human-animal bond.

Interestingly, while a variety of methods were used to support clients, few participants explained how they interpret or explore the emotions a client may be experiencing. Other research suggests that most times, veterinary professionals rely on their relationship with the client or intuition to assess how a client may be feeling (Morris, 2012). On occasion participants in the current study did explain that they can assess if a client may require additional professional support, but this too was selective. In most cases, participants explained that they had prior knowledge that a client may be experiencing intense or complicated grief resulting from a previous loss. These findings suggest that veterinary professionals’ direct exploration of the emotions and feelings a client may be experiencing might be limited. Limited exploration of the client’s feelings has been noted in other research examining communication during the pre-euthanasia discussion (Nogueira Borden et al., 2010). Thus, there may be more opportunities for
veterinary professionals to facilitate conversations that discuss a client’s emotional experience, their grief experience, and bereavement. When addressing the emotional experience of clients, there may also be incidences where clients may not wish to share their feelings (Lagoni, Butler, & Hetts, 1994; Stoewen et al., 2014). Thus, veterinary professionals may first wish to identify the extent to which clients wish to participate in such discussions.

In addition to a limited exploration of the emotional experience of clients, there may also be a limited exploration of the client’s needs and expectations related to companion animal euthanasia. For example, participants in the current study suggested that there is uncertainty around which methods of follow-up such as, condolence cards, phone calls or others, maybe preferred by many clients. Similar findings were also noted by Nogueira Borden et al., (2010) who determined that in addition to a limited exploration of clients’ feelings, veterinary professionals may not be fully exploring clients’ needs and expectations associated with companion animal euthanasia. Current bond-centered recommendations encourage veterinary professionals to explore clients’ previous experiences, expectations and needs related to companion animal euthanasia (Lagoni, Butler, & Hetts, 1994; Toray, 2004; Ormerod, 2008; Shanan et al., 2017). Understanding an individual’s preference provides an opportunity for veterinary professionals to customize the euthanasia experience to suit individual needs. In the current study, one participant explained that they will ask a client if they have previously experienced euthanasia and if so, they will tailor the depth of information they provide that clients. However, veterinary professionals may also wish to explore clients’ expectations related to other aspects of euthanasia such as the support and follow-up they need, expect or prefer.

Participants from the current study suggested that there are limits on the extent and nature of support they feel comfortable providing to clients. Other studies have noted similar findings in
which veterinary participants reported feeling that they are not trained psychologists but medical professionals, and as a result feel that there are limits to the support they should provide (Butler, Williams, & Koll, 2002; Morris, 2012). Experts suggest that it is rarely possible for veterinary professionals to meet all of the emotional needs of grieving clients, and they should not attempt to support beyond their means and skills (Shanan et al., 2017). Lagoni et al., (1994), especially emphasizing that veterinary professionals are not clergy, suicide prevention, therapists or psychologists.

Participants from the current study suggested that if their supportive limits are reached and they feel that a client may benefit from professional counselling, they follow-up and act as a guide to resources and professional counselling services. In the current study, most clinics mentioned being familiar with written resources like brochures and pamphlets or with professional support services, such as a pet loss hotline. However, it appeared these tools were not frequently utilized or provided to clients. The reason why veterinary professionals may not be discussing or using resources related to grief and bereavement was not described by participants. It may be speculated that since many veterinary professionals report feeling inadequately trained to support clients in general (Butler, Williams, & Koll, 2002; Adams, Conlon, & Long, 2004; Dickinson, Roof, & Roof, 2011), they may feel equally unprepared to discuss topics related to grief and bereavement. Or equally so, they do not feel that clients require these services or assume that a client may not benefit from them. Experts suggest that veterinary professionals are an important access-point to professional counselling services and resources (Lagoni, Butler, & Hetts, 1994; Ormerod, 2008; Shanan et al., 2017). Thus, following bond-centered practices, veterinary professionals are encouraged to offer grief-related education through verbal or written means, when appropriate (Lagoni, 1997). The use of written resources
such as books, pamphlets, and brochures are useful options as they allow clients to select and engage in the use of these resources on their own accord (Lagoni, Butler, & Hetts, 1994; Dawson, 2008; Ormerod, 2008). Ideally, resources should also be easily accessible, such as downloadable digital versions from clinic websites or displayed in the waiting room, exam and euthanasia rooms. As such, veterinary professionals and clinic must locate and connect with existing professional support services and resources in their area. Veterinary professionals should also research and remain up-to-date on these resources and services (Shanan et al., 2017).

Recognizing that veterinary professionals feel that their supportive ability is limited, it is important to also consider if it is even practical or feasible for veterinary professionals to take on the role of assessing client’s emotions, needs, and expectations. Some may argue that veterinary professionals are already at their supportive capacity. If this is indeed the case, other alternatives may need to be considered. For example, as the field of animal hospice and palliative care continues to expand, so too does the integration of veterinary social workers (Shanan et al., 2017). According to Shanan et al., (2017), social workers can assess the history and current mental state of the client, match resources to their individual needs, provide supportive counselling and more. They also have the additional benefit of being an accessible source of support for veterinary professionals themselves (Shanan et al., 2017). While veterinary social workers are well-established in the United States, they are less common in Canada (Dulmus & Sowers, 2012). As such, licensed providers are not always available and clinics may not have the financial ability to afford an additional employee (Shanan et al., 2017). Therefore, another alternative may be certifying veterinary staff in pet loss counselling. A variety of independent pet loss certification programs exist today, however, it is unclear if the credibility of many of these certificates has been assessed. Veterinary professionals might also consider conducting
preliminary euthanasia consultation. This may provide clients with the opportunity to communicate their needs and expectations and allow the veterinary professional and client to develop a plan, build rapport and improve communication around euthanasia and emotions. Shanan et al., (2017) also suggest that connecting with and referring to professionals in the community may also be a viable option. While each option has its associated pros and cons, more research is needed to determine if veterinary professionals can explore clients’ feelings, needs, and expectations related to companion animal euthanasia including the efficacy and economic impact that this addition may have.

3.6 Limitations and Directions for Future Research

Limitations of this study include the small sample size inherent in most qualitative research, including the narrow geographical range in which participants were located (Wellington Country, Ontario) which impacts the transferability of findings to all other veterinary professionals. Selection bias is also likely as there is a possibility that participants who agreed to be interviewed were more comfortable discussing euthanasia. Therefore, caution should be taken when considering the application of these findings to all companion animal practices, particularly those with different training, attitudes towards end-of-life care and cultural backgrounds. Additionally, since data collection involved open discussions among a group of participants, in this case, colleagues from the same clinics, there is always the possibility that participants may answer in socially desirable ways. To address this limitation, we contacted clinics by email one-week post-interview to provide participants with the opportunity to include any additional or clarify information which they felt were pertinent to the study. Only one clinic responded with minor additional information. The findings of the present study also reflect veterinary professionals’ self-reported methods of supporting clients during companion animal
euthanasia. Future research may want to record and observe euthanasia appointments in real-time to determine if veterinary professionals’ methods of support differ from the ones reported in this study. This may also allow for an assessment of how support practices impact clients. Additionally, since this study focused on client support during the euthanasia process itself, future research may also consider exploring support provided during other end-of-life care such as pre-euthanasia consultations, hospice and palliative care.

3.7 Conclusion

Results of the present study suggest that veterinary professionals work diligently to provide support throughout and after companion animal euthanasia. Further exploration of the client’s emotions, needs and expectations related to companion animal euthanasia may allow veterinary professionals to tailor their support and improve clients’ experience. Veterinary professionals are encouraged to connect with local professional support services and provide grief resources to clients. The loss of a companion animal is never easy, but veterinary professionals can improve that experience for many clients by appreciating clients’ emotional experiences, their background, relationship with the companion animal and collaborating with clients about their expectations related to companion animal euthanasia.
References


WV Saunders Company.


### Tables

**Table 3.1. Participant descriptive statistics**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>n = 38</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>36 years</td>
</tr>
<tr>
<td>Range</td>
<td>16-60 years</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>5 (13%)</td>
</tr>
<tr>
<td>Female</td>
<td>33 (87%)</td>
</tr>
<tr>
<td><strong>Employment position</strong></td>
<td></td>
</tr>
<tr>
<td>Clinic manager</td>
<td>3 (8%)</td>
</tr>
<tr>
<td>Practice owner</td>
<td>9 (24%)</td>
</tr>
<tr>
<td>Associate veterinarian</td>
<td>5 (13%)</td>
</tr>
<tr>
<td>Veterinary technician</td>
<td>9 (24%)</td>
</tr>
<tr>
<td>Veterinary assistant</td>
<td>8 (21%)</td>
</tr>
<tr>
<td>Veterinary receptionist</td>
<td>3 (8%)</td>
</tr>
<tr>
<td>Client care specialist</td>
<td>1 (2%)</td>
</tr>
<tr>
<td><strong>Years at clinic</strong></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>3 years</td>
</tr>
<tr>
<td>Range</td>
<td>0.5 – 27 years</td>
</tr>
<tr>
<td><strong>Years in veterinary profession</strong></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>10 years</td>
</tr>
<tr>
<td>Range</td>
<td>1 – 36 years</td>
</tr>
</tbody>
</table>
CHAPTER 4: Impacts of the process and decision making around companion animal euthanasia on veterinary wellbeing.

A version of the original publication is presented in the following chapter: Matte, A., Khosa, D., Meehan, M., Coe, J. (2019). The impacts of managing companion animal end-of-life care: perspectives of veterinary professionals in Southeastern Ontario, Canada. Veterinary Record. http://dx.doi.org/10.1136/vr.105540

*client’ is used in replacement of the term ‘pet owner’ in the present chapter
4.1 Abstract

A qualitative study using group and individual interviews involving 10 veterinary hospitals in Wellington County, Ontario, explored how the practices involved in euthanasia-related care impacts the wellbeing of veterinary professionals. Thematic analysis indicated two major outcomes: the goal and desire of veterinary professionals were to facilitate a ‘good death’ for the companion animal and navigating the euthanasia decision process was more challenging than the actual event of performing euthanasia. When successful in achieving a ‘good death’ and navigating euthanasia decisions, participants reported feeling that their sense of wellbeing and the veterinary client’s sense of wellbeing were improved. When unsuccessful, participants reported experiencing a reduced sense of wellbeing, reduced job satisfaction, increased emotional strain and feeling that the client was also detrimentally impacted. For many participants, navigating euthanasia decision-making consultations was seen as a greater challenge and a greater contributor to a reduced sense of wellbeing than the act of euthanasia itself. These findings suggest that there is a need for greater attention and support for veterinary professionals, particularly when navigating euthanasia decision-making consultations. Additional training and resources on navigating euthanasia consultations may assist in improving the wellbeing of veterinary professionals and the companion animals and owners under their care.

4.2 Introduction

The human-animal bond continues to shape and alter the landscape of the veterinary profession to one which greatly values, acknowledges and supports modern human-animal interactions (Knesl et al., 2016). New technologies, treatment options, and expectations of care now provide veterinary professionals and pet clients with a greater variety of discussions and decisions to navigate (Knesl et al., 2016; Ormerod, 2008). One of the most important decisions
which pet clients and veterinary professionals must navigate is when to end medical care and transition into end-of-life care (Tait, 2003). This decision can be especially challenging for the pet owner who often finds themselves weighing the quality of their pet's life, their desire for more time and the implications of continued care (Adams et al., 1999; Shaw & Lagoni, 2007).

The roles and responsibilities of veterinarians and their staff during the transition and enactment of end-of-life care are also extensive and multifaceted. Veterinarians and their staff must simultaneously act as a facilitator, supporter, educator, and a resource and referral guide (Bishop et al., 2016; Lagoni et al., 1994; Shanan et al., 2017). Enactment of these roles is contingent on veterinary professionals proficiently utilizing numerous skills including, high-quality technical skills, being capable and empathetic communicators, and being able to meaningfully address the emotional or supportive needs of the pet owner (Bishop et al., 2016; Lagoni et al., 1994). Unsuccessful execution of any of the roles or the skills underpinning them can have serious implications for both the pet owner and veterinary professionals (Rémillard et al., 2017; Scotney et al., 2015).

When euthanasia-related care is managed well, a pet owner’s grief may be minimized, their concerns acknowledged, emotions supported, and difficult decisions, such as the transition to end-of-life, can be more easily negotiated (4,5). When managed poorly, clients may experience dissatisfaction with their veterinarian, have a decreased willingness to continue a relationship with that veterinarian or veterinary hospital, and be at a greater risk for complicated forms of grief (Adams et al., 1999; Cameron, 1996; Fernandez-Mehler et al., 2013). The wellbeing of veterinary professionals themselves has been a growing concern in the veterinary profession and emerging in the accompanying literature (Baran et al., 2009; Reeve et al., 2005; Rogelberg et al., 2007). Findings from previous research have demonstrated that veterinary
professionals who engage in euthanasia-related work can and do experience reduced wellbeing, stress, emotional strain and a decrease in job satisfaction as a result of euthanasia-related work (Baran et al., 2009; Reeve et al., 2005; Rogelberg et al., 2007; Scotney et al., 2015).

For many veterinarians, a sense of being accomplished is closely tied to their ability to successfully perform their roles and responsibilities, particularly, those associated with euthanasia-related care (Morris, 2012a). However, previous research (Butler et al., 2002; Dickinson et al., 2011; Tinga et al., 2001) has already and continues to demonstrate that many veterinarians may not feel fully prepared to manage all aspects of euthanasia-related care, particularly communicating with and supporting the emotional needs of pet clients. Furthermore, what constitutes the most effective way of managing the various aspects of euthanasia-related care including the act of euthanasia and navigating euthanasia decision-making are still largely under-researched. Prior research and publications have begun to contribute to this area (Belshaw, Asher, Harvey, & Dean, 2015; Christiansen, Kristensen, Lassen, & Sandøe, 2016; Shaw & Lagoni, 2007), and more comprehensive guidelines are emerging (Bishop et al., 2016; Leary et al., 2013). However, authors of these guidelines and other research (Dickinson et al., 2011; Littlewood et al., 2018; Nogueira Borden et al., 2010; Tinga et al., 2001) also acknowledge the need for more research to further inform evidence-based recommendations, guidance and education around euthanasia-related care.

To begin to bridge the gaps in existing research, assist in informing evidence-based guidelines and support veterinary professionals and subsequently the pet clients under their care, the present study sought to explore and develop a deeper understanding of euthanasia-related care. Specifically, we aimed to explore how the practices of euthanasia related care and the processes leading up to euthanasia impacts the wellbeing of veterinary professionals. Exploring
the perceptions of veterinary professionals can provide a greater depth of insight into euthanasia-related care and the associated implications such care may have on the companion animal, pet owner and veterinary professionals themselves.

Given the lack of existing research, an inductive qualitative methodology consisting of group and individual interviews were used as it allowed the researchers to gain a greater depth of insight and appreciation for participants’ underlying opinions, concerns and experiences while also generating hypothesis for future research (Mayan, 2001).

4.3 Materials and Methods

4.3.1 Study Design and Participants

This exploratory qualitative study consisted of 9 focus group discussions and 1 individual interview with veterinarians, veterinary technicians and veterinary receptionists from 10 companion animal veterinary hospitals in Wellington County, Ontario. Companion animal veterinary hospitals and their staff were recruited from a list of small animal veterinary hospitals within 25kms of the Ontario Veterinary College (n=84) which was collated from the College of Veterinarians of Ontario (CVO) online Public Register. The list of hospitals was randomized, and hospitals were sequentially contacted by the first author via telephone with an invitation to participate in the study. Staff from each hospital were provided with the option to participate in either a group or individual interview format. Participants from 9 hospitals selected group discussions, and 1 hospital selected an individual interview format. Consent was provided by all participants before the interviews. Study protocols were approved by the institution’s research ethics board (REB#14MY006).

4.3.2 Interview Structure
All interviews took place between March and June of 2016. Interviews were held at the location of the participating veterinary hospital and moderated by the first author. Interviews followed a semi-structured question guide consisting of open-ended questions (Q) and follow-up prompts (FP). The specific question and follow up prompts related to the aim of this paper were: Q: What aspects of euthanasia-related care do you feel impacts your sense of wellbeing, positively or negatively?; FP: What other aspects of euthanasia-related care do you feel cause you to feel emotionally strained?; FP: Which aspects of euthanasia-related care do you feel cause the greatest emotional strain? Field notes were taken during interviews to keep track of discussion and details and a meal was provided to all participants and clinic staff at the time of each group or individual interview. Demographic information was collected from all participants post-discussion using a demographics survey developed by the researchers. All interviews were audio-recorded and transcribed verbatim by the first author and by a professional transcriptionist. Transcripts and their associated audio-recordings were compared to ensure transcription accuracy by the first author. Transcripts were de-identified and quotes belonging to each participant were labelled using a sequential number-letter combination, e.g. A1 is identified as group “A”, participant #1. Data saturation was considered to have been reached at the tenth interview when no new information emerged from the interview (Braun & Clarke, 2006).

4.3.3 Data Analysis

Demographic information was analyzed using descriptive statistics, including means and range in Microsoft Excel®. Finalized transcripts were imported, organised and analyzed in QSR International NVivo 12 software using thematic analysis (Braun & Clarke, 2006) by the first author. In brief, transcripts were read multiple times to ensure familiarization, open codes were applied to sections of text to represent concepts participants were describing (e.g. opinions,
procedures, ideas), similar concepts were then grouped into themes and described in a codebook. The final step of analysis involved a comprehensive review by the first and second authors of all codes, themes, attributed names and the overall relationship between the themes to establish rigour in analysis.

4.4 Results

4.4.1 Demographics

A total of 38 participants, including veterinarians (n=14), veterinary technicians (n=9), veterinary assistants (n=8), practice managers (n=8), veterinary receptionists (n=3), and client care specialists (n=1) participated in the interviews. The number of participants per interview ranged from 1 to 11 with an average of 4 participants per interview. Interview length ranged from 27.3 to 81.5 minutes, with an average of 60.2 minutes. Thirty-three (87%) participants were female. The mean age of participants was 36 years (range 16-60 years) and, the average number of years participants worked at their current veterinary hospital and in the veterinary profession were 3 years (range 0.5-27 years), and 10 years (range 1-36 years), respectively.

4.4.2 Themes

The two themes discussed in this paper specifically address the aim of this study. These themes were; i) the goal and desire of veterinary professionals are to facilitate a “good death” for the companion animal; ii) navigating the decision to euthanase a companion animal is harder to experience than the actual event.

4.4.2.1 Theme 1: The goal and desire of veterinary professionals is to facilitate a “good death” for the companion animal

Across all interviews participants emphasized that the most essential aspect of the euthanasia process was to provide the companion animal with what was commonly described as
a “good death”. For most participants, facilitating a “good death” was seen as a positive act that ultimately allowed veterinary professionals to end the suffering of a companion animal. Characterized by participants, a “good death” was described as being “humane”, “peaceful” “smooth,” and “quick”, and as a participant explained, they felt it was a good euthanasia, “if the process from start to finish is smooth, the transition to death is smooth, everything is smooth” (F2).

In addition to being seen as a positive act for the companion animal, participants also felt that the successful facilitation of a "good death" can help to support the wellbeing of the pet owner. Many participants themselves described having experienced the loss of a pet and knew from their own experience as both veterinary clients and veterinary professionals that clients “just want their animals to pass away peacefully” (J1). Participants felt that if euthanasia did not result in a “good death,” “it would make everything much worse” (I8) for the pet owner. For this reason, participants wanted to make the euthanasia process “a positive one, as best we can” (F1).

A “good death” was also described as an important influencer of veterinary participants’ sense of wellbeing. For example, when participants felt they achieved a “good death”, they reported experiencing an improved sense of wellbeing. As a participant explained, “When I do them well, I feel really good about myself even though it’s a sad thing. I feel really, really good and I come home going, god that went amazing” (C1). Other participants agreed with the positive impacts that providing a “good death” can have on them stating, “we ended that pet’s suffering and now it’s at peace, so I can be at peace” (F6). Some participants even described experiencing positive effects when they had to perform several euthanasia procedures. For example, as a participant explained, “[y]ou would think that the more you do euthanasias the
worse you would be, but I’m better when I can do them well….I feel really good about myself even though it’s a sad thing” (C1).

However, this did not always apply to all participants. Some participants reported feeling that there is a limit on how frequently they could perform euthanasia, particularly in one day. For example, as a participant described, “I had a day…where I did 5 euthanasias in one day. That’s my limit. That did not feel good. Nor, did it sit well with myself or any of my staff” (F1). Conversely, when participants felt that their ability to provide a “good death” was, in some way, diminished or inhibited, they reported experiencing a reduced sense of wellbeing. For example, when participants felt that they were not successful in achieving the hallmarks of a “good death” (i.e. humane, peaceful, smooth, and quick), they reported experiencing a reduced sense of wellbeing. As a participant explained, “you come home going, I don’t like my job, I can’t believe I just did that. That was supposed to be nice and that was awful” (C1).

Participants explained that unwanted side-effects (that are often out of their control) which can occur as the animal transitions into death are most often the reason, they perceive death to be “poor.” For example, a participant explained that companion animals with a compromised cardiovascular system can experience a less smooth and prolonged transition into death which violates certain characteristics of a good death. As the participant explained,

“[t]he bad euthanasias are the ones where the animal has low blood pressure, low cardiac output, electrolyte abnormalities…[the animal] is just getting little sniffs of the drug slowly, and sometimes it’s not as smooth as it should be” (H1). Other unwanted side-effects described by participants included if the companion animal experienced adverse
physical reactions, such as arching or vocalization, which may be perceived as symptoms of discomfort by the owner.

4.4.2.2 Theme 2: Navigating the decision to euthanase a companion animal is harder to experience than the actual event.

Participants across focus groups described the lead up to the euthanasia as being of greatest impact due to the effect it can have on their wellbeing. More specifically, participants felt that the consultations around euthanasia decision-making can be the most difficult process to navigate. As a participant described, “we are often in that situation where the decision-making process is harder than the actual event [euthanasia]” (B1).

Participants particularly felt this way when the euthanasia decision-making process required multiple or prolonged consultations. As a participant explained, “The fatigue probably comes more with the constant consultation towards the decision of euthanasia” (E4). The other participants agreed, "I agree. The hand-holding… I find that draining, those conversations repeatedly or on numerous occasions. That's draining” (E2). Participants from other interviews held similar opinions, that “it is the hardest part to deal with” (B1).

During prolonged euthanasia decisions, participants felt that the strain they experienced can also become further aggravated by feelings of concern for the companion animal. For example, participants reported feeling a strong sense of reduced wellbeing when a companion animal’s health was perceived to have consequentially deteriorated as a result of a prolonged euthanasia decision or potential lack of euthanasia consultation. As a participant described;
“We had a cat two days ago…they waited way too long in my opinion to bring their cat in. And their poor cat was almost dead…And it broke my heart. I just broke into tears…I had to take a minute and step aside and I didn’t stick around for that euthanasia because I just couldn’t believe that the cat came in in that condition. That’s what’s hard for me. Seeing that” (F7).

In these situations, participants felt that “it is harder to deal with a dying patient than the euthanasia itself” (B1). Participants did recognize that it can be difficult for clients to discuss and make a euthanasia decision. As a participant described, “[i]t’s hard to come to that decision. Even being a veterinarian it’s still hard” (F1). Furthermore, participants also recognized that it can be difficult for clients to objectively see the changes in the companion animal’s health and know when the best time to select euthanasia is. As a participant continued to explain, ”people who keep animals to that extent, I think because they’re so close to it they don’t really see how bad it is… and it’s because we don’t see them every day that we recognize how far it’s gone” (F1).

Participants themselves also explained that it can be difficult as veterinary professionals to determine when the most appropriate time to consider euthanasia is, and this can be a source of strain for them as well. As a participant explained, “the stress is more about making the [euthanasia] decision, about the quality of life of the pet and determining euthanasia” (A1). Another participant had similar thoughts, stating ”I sometimes lie awake at night wonder whether you know, you should have suggested it now or is the quality-of-life adequate for another few days” (B1). It seemed that it wasn’t until a euthanasia decision was made, and participants felt that euthanasia was indeed warranted, that participants reported experiencing less emotional
strain. As a participant continued to explain, “then you euthanize and there is a feeling of relief” (B1).

4.5 Discussion

The findings of the present study provide a deeper understanding of how the practices of euthanasia-related care and the processes leading up to euthanasia impacts the wellbeing of veterinary professionals.

Firstly, veterinary participants in the current study saw the ability to end the suffering of a companion animal and provide a “good death” as a positive act and the main goal of the euthanasia process. In addition to being a positive act for the companion animal, participants also felt that the quality of the companion animal’s death was an important component of the pet owner’s experience and one which may assist in easing some of the grief they experience. Conversely, when a “good death” was not successfully or wholly achieved, participants felt a pet owner’s experience could be detrimentally affected. These findings support previous research which suggests that how euthanasia care is handled by veterinary professionals can impact a pet owner’s emotions and grief experience (Adams et al., 1999; Adams, Bonnett, & Meek, 2000; Rémillard et al., 2017).

Results of the current study also suggest that how euthanasia care is managed can also be an important component of a veterinary professional’s experience and wellbeing. When a “good death” was achieved, participants reported experiencing an improved sense of wellbeing. Conversely, when unsuccessful, participants reported experiencing a reduced sense of wellbeing and job satisfaction. Previous research (Morris, 2012a) found that for many veterinarians, being good at euthanasia and supporting clients is an important identifier of being an accomplished veterinarian. As such, how successful a veterinary professional feels following euthanasia may
be an important predictor to consider when assessing factors contributing to veterinarians’ sense of overall wellbeing and job satisfaction. Future research is encouraged to further examine the relationship between veterinary professionals’ perceived success in achieving a “good death” and effects on their overall wellbeing and job satisfaction.

The second area of focus for participants in the current study was navigating euthanasia-decision consultations. Participants reported feeling that they experienced the greatest challenges when navigating euthanasia decision-making consultations, particularly when they were prolonged or complicated by feelings of concern for the companion animal. As a result of these challenges, participants reported feeling a reduced sense of wellbeing and emotional strain. Shaw and Lagoni (2007) suggest that discussions about the decision to euthanize a pet are one of the most difficult conversations a veterinary professional has to conduct. Added to the difficulty is the dual role the veterinarian plays in helping the pet owner in their decision-making process while also considering the implications for the health of the companion animal – making this already difficult conversation even more challenging and complicated. When these consultations were finally resolved, participants in the current study reported experiences a sense of relief. The impacts described by participants in the current study are supported by Ptacek & Eberhardt (2004) who suggest that the stress physicians experience while conducting difficult conversations can only dissipate when conversations are completed and resolved. Therefore, for participants in the current study, conducting euthanasia-decision conversations repeatedly or for an extended duration may cause their stress can become heightened and eventually contribute to a reduced sense of wellbeing (Ptacek & Eberhardt, 1996; Ptacek et al., 2004).

While companion animal euthanasia has previously been investigated as a source of compassion fatigue and emotional strain for veterinary professionals (Bartram, Yadegarfar, &
Baldwin, 2009; Kahler, 2015; Platt, Hawton, Simkin, & Mellanby, 2010; Skipper & Williams, 2012), few studies have considered the effects of euthanasia-related practices other than performing the act of euthanasia itself. Considering that participants from the current study felt that navigating the euthanasia-decision consultations was even more difficult than the act of euthanasia itself, it suggests that there is a need for greater attention to the impact of these discussions. Continuing to ensure that veterinary professionals have adequate skills and training to successfully perform and manage all aspects of the euthanasia process including the euthanasia consultation, may make a meaningful difference in the wellbeing of veterinary professionals. Based on the findings of the current study, it would appear that veterinary professionals may benefit from more training and guidance on how to navigate euthanasia consultations, particularly those that are prolonged or complicated. Consistent with our findings, previous research (Nogueira Borden et al., 2010, 2019) exploring simulated client-veterinary interactions during euthanasia discussions found that there is a need for more training of veterinarians in areas related to end-of-life conversations and euthanasia decision-making.

Both human (Ptacek et al., 2004) and veterinary (Knesl et al., 2016) experts suggest that greater provisions of resources as well as improving practitioners’ confidence and competence may also help to improve veterinary professionals’ ability to manage and cope with difficult discussions. While some resources in the form of guidelines presently existing to help assist veterinary professionals (Bishop et al., 2016; Shaw & Lagoni, 2007; Yeates & Main, 2009), the most effective means of managing veterinary euthanasia consultations is presently under-researched. As such, more research into the most effective communication skills, including when specific skills should be used is warranted and encouraged. Future research may wish to further explore the impact of euthanasia-decision consultations, veterinary professionals’ perceived
success in managing euthanasia consultations and the effects on their wellbeing. Due to the sensitive nature of such discussions, it may be difficult to use video recording or observe euthanasia consultations in real-time. Therefore, the use of simulated clients may offer a practical solution and one which has proved reliable in some previous research (Nogueira Borden, Adams, Bonnett, Ribble, & Shaw, 2019).

It has been suggested that veterinary professionals can only do so much with the skills and time they have available to them (Buckman, 1992; Gorman, Ahern, Wiseman, & Skrobik, 2005; Rosenbaum, Ferguson, & Lobas, 2004) and for these reasons, it may be logical to consider the role that other trained professionals such as clinical counsellors and social workers can play within veterinary healthcare (Quackenbush & Glickman, 1984; Shanan, 2011; Sharkin & Knox, 2003). Experts (Donohue, 2005; Quackenbush & Glickman, 1984; Sharkin & Bahrick, 1990; Sharkin & Knox, 2003) suggest that professionals trained in counselling skills can assist veterinary professionals in a variety of ways, including relieving emotional strain on veterinary professionals and helping clients manage the euthanasia decision-making process. Many social workers and other professionals have already begun to join interdisciplinary veterinary teams (Bishop et al., 2016; Quackenbush & Glickman, 1984; Shanan et al., 2017; Strand et al., 2012) to assist in managing client support, euthanasia decision-making and staff support. Other means of assistance may include the use of digital and virtual sources of support, such as telehealth. Previous research (Mars & Auer, 2006) suggests that telemedicine can improve the services veterinary professionals can provide, offer specialist services, reduce travel costs for owners, and act as a source of support and education for veterinary professionals themselves. The integration of trained counselling staff and the utilization of new technologies may be a practical solution to meet the complex needs of both veterinary professionals and clients.
Overall, the findings highlight the current realities of the participants in this study performing euthanasia-related care. Findings indicate that veterinary professionals in this study strive to perform euthanasia most humanely and peacefully as possible to bring comfort to the companion animal, owner and themselves. For the veterinary professionals here, their sense of wellbeing appears to be linked to their perceived success in providing a “good death” and navigating euthanasia consultations. Findings contribute to a call for a greater need for discussions and attention to the impacts that the practice of euthanasia and navigation of euthanasia consultations can have on the wellbeing of veterinary professionals. Having the ability to successfully navigate all aspects of the euthanasia process, including the euthanasia consultations and the act of euthanasia, can improve the wellbeing of both the clients and veterinary professionals. However, veterinary professionals may be struggling in certain aspects of the euthanasia process which may be of detriment to their wellbeing. A greater provision of research, training and resources to assist veterinary professionals in managing euthanasia decision-making consultations and achieving a “good death” may make a meaningful difference in the wellbeing of veterinary professionals, and the companion animals and clients under their care.

Directions for future research may include exploring clients’ expectations and perceptions of the euthanasia process, and how their perceptions compare to those described by veterinary professionals in the current study. Limitations of the current study may include the small sample size inherent in qualitative research. Due to the sample size being specific to the geographical area of Wellington Country, Ontario, findings may not be generalizable to all situations, individuals, experiences and contexts as the practices of veterinary professionals and
expectations of pet owners may differ from those reported and described by participants in the present study.
References


11. Cameron C. Patient compliance: Recognition of factors involved and suggestions for


20. Christiansen SB, Kristensen AT, Lassen J, Sandøe P. Veterinarians’ role in clients’


32. Skipper GE, Williams JB. Failure to acknowledge high suicide risk among Veterinarians. *JVME* 2012;39:79–82.


CHAPTER 5: An exploration of veterinarians' use of bond-centered practices during companion animal euthanasia in Ontario, Canada.

A version of the original manuscript formatted as per requirements for submission to Veterinary Record is presented here. Matte, A., Khosa, D., Meehan, M., Coe, J. & Niel, L. An exploration of veterinarians’ use of bond-centered practices during companion animal euthanasia in Ontario, Canada, under journal review.

*client’ is used in replacement of the term ‘pet owner’ in the present chapter
5.1 Abstract

This study explored the extent to which veterinary professionals employ bond-centered care practices during companion animal euthanasia and how variables such as veterinarians’ empathy, years in practice and availability of time might impact veterinarians’ use of bond-centered care practices. Relevant bond-centered practices were identified through a review of the literature and helped to inform the development of a 65-item online questionnaire tool. Veterinarians’ use of bond-centered practices, empathy score, years in practice and availability of time for euthanasia were assessed for 368 practicing veterinarians in Ontario. Data were analyzed using descriptive statistics and multivariable regression. Findings suggest that veterinarians report consistently providing emotional support and think it is important to assess clients’ expectations during companion animal euthanasia. However, few reported consistently implementing practices that assist in exploring clients’ expectations, previous or emotional experience. Veterinarians’ empathy scores, years in practice and the amount of time scheduled for euthanasia were positively associated with use of bond-centered care practices. Providing adequate time allocation for euthanasia appointments may assist in efforts to foster relationships, explore clients’ experiences, expectations and emotions, and provide emotional support. Empathy skills training may also be valuable in improving the comfort level and skill of veterinarians in providing bond-centered care.

5.2 Introduction

Like other healthcare professions, veterinary medicine is not solely about the diagnosis and treatment of disease but embraces a broader, more holistic approach to animal and human health and wellbeing (Beck & Katcher, 2003; Brown & Silverman, 1999; Pukay, 2000). The unique relationship which exists between humans and animals and the increasing recognition of
this bond has expanded the standards of teaching within veterinary medicine to also include considerations for the social and emotional wellbeing of veterinary clients. This philosophy of care has been termed bond or relationship-centred care (Lagoni et al., 1994; Ormerod, 2008; Shanan et al., 2017).

Bond-centered care is based on a model of shared-decision making between the veterinarian and clients who work together to achieve the best care for the companion animal while respecting and appreciating the human-animal bond and the needs of clients created by this bond (Ormerod, 2008). Effective bond-centered care requires the balance of exceptional technical and communication skills, including support, empathy, respect for the human-animal bond and a developed understanding of the clients' feelings and emotions (Adams & Frankel, 2007; Ormerod, 2008; Shaw, 2006). The need for competent bond-centered care is particularly necessary when clients are faced with end-of-life decisions, euthanasia and the grief associated with pet loss (Ormerod, 2008; Shanan et al., 2017). Understanding and empathizing with clients’ experiences during companion animal euthanasia can have positive effects on clients’ grief, satisfaction and overall sense of wellbeing (Reynolds & Scott, 1999). Indeed, previous research has demonstrated that strategies veterinary professionals presently use to manage the practice of companion animal euthanasia can assist in alleviating or aggravating a client’s grief experience following pet loss (Adams et al., 1999).

In the context of veterinary practice, a bond-centered approach can result in numerous benefits including greater client satisfaction; retention and adherence; a greater focus on teamwork; reduction in staff stress; and increased profitability and community perceptions (Lagoni et al., 1994; Ormerod, 2008; Shanan et al., 2017). In human medicine, the counterpart to bond-centered care, known as patient-centred care has been shown to improve patients’
satisfaction, trust, compliance and health outcomes (Epstein, 2005; Fiscella et al., 2004; Rathert, Williams, McCaughey, & Ishqaidef, 2015; Moira Stewart et al., 2000). Also, within human healthcare, research has demonstrated that several barriers can act to prevent physicians from practicing robust patient-centred care. Such factors include a lack of time, belief that empathy is not of value and a lack of training in compassion and emotional aspects of healthcare (Esmaeili, Ali Cheraghi, & Salsali, 2014; Nelson et al., 2006; Visser, Deliens, & Houttekier, 2014). Similar barriers may also be present in veterinary medicine. For example, practices related to communication and emotional support of clients during companion animal euthanasia have already been identified as areas where veterinarians may feel unprepared (Dickinson et al., 2011; Tinga et al., 2001). Previous research in veterinary medicine has also found that veterinarians with fewer years in practice had lower levels of self-reported comfort and competence with their professional responsibilities, including the emotional support of clients (Tinga et al., 2001).

Among the existing literature two relevant areas of bond-centered care related to companion animal euthanasia exist: 1) the exploration of clients' experiences, expectations and emotions as they relate to companion animal euthanasia (Lagoni et al., 1994; Ormerod, 2008) and 2) the emotional support of bereaved clients (Bishop et al., 2016; Frankel, 2006; Leary et al., 2013; Ontario, 2016b). Research suggests that exploring the expectations and emotional experiences of clients can provide important information for veterinarians, particularly during end-of-life care and euthanasia (Adams et al., 2000; McCutcheon & Fleming, 2001; Nogueira Borden et al., 2010). For example, in human medicine, a patient’s family, finances, employment, and social support have been shown to impact patients' health and wellbeing (M Stewart et al., 2003). Similarly, in veterinary medicine, a client’s attachment to their companion animal, previous life experiences and existing support network are known to be important predictors of
the severity of an individual’s grief (Adams et al., 2000; McCutcheon & Fleming, 2001).

Furthermore, the importance of emotional support of clients during companion animal euthanasia has been widely described and encouraged among the existing literature (Bishop et al., 2016; Fernandez-Mehler et al., 2013; Lagoni et al., 1994; Martin et al., 2004). There is also a growing consensus among experts in the field of animal end-of-life care (e.g. Bishop et al., 2016; Shanan et al., 2017) that emotional support could be further expanded by incorporating professional counsellors and resources into veterinary clinics to not only support clients but also the veterinary staff dedicated to their care.

Considering the growing importance of bond-centered care within the veterinary profession and the potential impact effective bond-centered practices may have on a client’s grief experience, it is imperative to better understand the current climate of bond-centered care within the veterinary profession. As such, the objective of the present study was to explore the extent to which veterinary professionals employ bond-centered practices, and variables such as veterinarians' empathy, years in practice and availability of time might impact veterinarians’ use of bond-centered practices.

5.3 Materials and Methods

5.3.1 Study and Questionnaire Design

A cross-section study was conducted between April and June 2016. The 65-item questionnaire was organized into two sections: (1) veterinarians’ use of bond-centered practices; and (2) participant demographic information including veterinarians’ self-reported empathy, years in practice and amount of time scheduled for euthanasia appointments. Study protocols were approved by the institution’s research ethics board (REB#14MY006).
Exploration of Clients’ Experiences, Expectations and Emotions - On a 5-point Likert scale (1=never; 2=rarely; 3=sometime; 4=very often; 5=always) participants were asked to report how often they inquired about a client’s expectations and emotional experience during the euthanasia process, including factors known to be important predictors of grief severity following pet loss such as, clients’ previous experiences with euthanasia or death, the strength of the client’s relationship with their companion animal, and the presence of a support network (Adams et al., 2000; McCutcheon & Fleming, 2001). Furthermore, on a 5-point Likert scale (1=strongly disagree; 2=disagree; 3=neither agree nor disagree; 4=agree, and 5=strongly agree), questions assessed how important participants felt it was to inquire about the expectations of clients and their willingness to alter their euthanasia practices based on clients’ expectations.

Emotional Support of Bereaved Clients - Participants rated how often on a 5-point Likert scale (1=never, 2=rarely; 3=sometime; 4=very often; 5=always), they utilized 10 different support practices which were identified through a previous study (Matte, Khosa, Meehan, Coe, & Niel, 2019). These practices included; providing comfort items, sympathy, empathy, validation, normalizing emotions, physical contact, remaining in the room, relating to clients, reminiscing with clients, and offering reassurance. Participants’ use of follow-up care such as condolence cards and phone calls, as well as bereavement information and resources such as pamphlets, brochures, websites, and counselling professionals for the support of clients were also assessed using a dichotomous yes or no response.

Participant Demographic Information - Participants’ self-reported empathy was assessed using the validated Jefferson Empathy Scale for veterinarian participants (JSE-V) (Hojat et al., 2001). The JSE-V was comprised of twenty 7-point Likert items measured on a scale of strongly disagree = 1 to strongly agree =7. Ten items were negatively worded, and
reverse scored. Cumulative empathy scores could range from 20 to 140 with a higher cumulative score suggesting a higher level of cognitive empathy when engaged in patient and client care (Hojat et al., 2001). The number of years a participant had been practicing veterinary medicine was measured on a continuous scale. It was assumed that with more years in practice participants had more experience practicing veterinary medicine and therefore, more experience practicing companion animal euthanasia. The amount of time typically scheduled for euthanasia appointments was measured using 3 categories; <30 minutes, 30-45 minutes, and >45 minutes. Other demographic questions included, participants age, gender, school of training (Canadian, or non-Canadian school), the clinic’s location (urban, suburban, rural), the amount of time typically scheduled for wellness appointment, and the type of room typically used for euthanasia appointments (i.e. exam, euthanasia room, other).

5.3.2 Questionnaire Distribution

A target sample size (n=345) was calculated using a conservative approach with 5% error and 95% confidence (Bartlett, Kotrick, & Higgins, 2001). The questionnaire was pretested with a convenience sample of veterinarians (n=3) and veterinary researchers (n=3) at the Ontario Veterinary College as well as undergraduate students that were part of a pre-veterinary student group (n=10) whose feedback was used to refine questionnaire length, clarity of language, flow and completeness. Participants’ responses in pre-testing were not included in the study sample. The finalized questionnaire was administered through an online platform (Qualtrics Survey Software®, 2016, Provo, Utah) via an email link distributed through an electronic communication from the College of Veterinarians of Ontario electronic communication. Eligible participants included all veterinarians in Ontario who practiced companion animal medicine (n=3589). Once the initial wave of respondents began to slow, 1114 email addresses for
veterinary clinics who practiced companion animal medicine were also collected following an internet search and an invitation to participate in the questionnaire was emailed to each clinic directly. Seventeen clinics asked for the questionnaire to be faxed in paper form. Information about the questionnaire was also advertised through the Ontario Veterinary College’s social media pages. Participants were informed that all responses were anonymous and provided consent to participate via an electronic consent form built into the questionnaire. Upon completion of the questionnaire, participants could elect to participate in a prize draw via a separate survey link. Participants were eligible to win 1 of 5 gift card prizes, one $150 gift card, one of two $50, or one of four $25 gift cards from popular retailers.

5.3.3 Data Analysis

Completed questionnaire data were entered and reviewed in a database management program (Microsoft® Excel Software, Version 16.24, 2017, Redmond, Washington), and then imported, analyzed and modelled using standard statistical software (Stata/IC 15.1 for Mac; Stata Corporation, College Station, Texas). Missing values were assessed and if less than 20% of responses were missing, the variable was retained for analysis (Dong & Peng, 2013). Descriptive statistics were calculated for all completed data and included frequency and distribution for categorical variables, means and medians for continuous responses.

A total of eighteen multivariable regression models were conducted with listwise deletion of all missing data (Dong & Peng, 2013). Six models pertained to the extent to which (always, very often, sometimes, rarely or never) veterinarians’ inquired about clients’; (1) relationship with their companion animal; (2) expectations; (3) emotional state through intuition; (4) emotional state directly; (5) expectations; (6) support network, and 12 models pertained to the extent to which (always, very often, sometimes, rarely or never) veterinarians’ used of client
support practices (i.e. comfort items, sympathy, empathy, validating emotions, remaining present, normalizing emotions, physical contact, relating to clients, reminiscing, reassuring client, offering bereavement resources and information and providing follow-up care). All models were conducted using multivariable ordinal regression, excluding veterinarian’s use of bereaved services and follow-up care which were modelled using multivariable logistic regression due to their binary outcome. Predictor variables used in all models were selected a priori and included participants’ cumulative empathy score (continuous, ranging from 75-140), years in practice (continuous, ranging from 1-54 years) and the amount of time scheduled for euthanasia procedures (categorical, <30 minutes; 30-45 minutes; >45 minutes).

Multicollinearity between predictors was assessed using Spearman rank test. If collinearity was ≥0.7, the most plausible predictor was retained (Dorman et al., 2013). For each model, univariable regression using a conservative p-value (p<0.20) was used to assess unconditional associations with the dependent variables. All variables with an unconditional association with the dependent variable were retained in the full multivariable model. Backwards stepwise regression was conducted and all non-significant predictors (p<0.05) were removed from the full multivariable model after assessing for confounding at the time of removal. If the odds ratio of the other predictors changed by more than 20% when the variable was removed, the variable was retained (Dohoo, Martin & Stryhn, 2012). If no confounding was found, the predictor was removed from the model. Linearity was assessed using a quadratic transformation of continuous predictors. If the quadratic was significant (p<0.05) when entered into the model, the relationship was considered to be non-linear and addressed by categorizing the predictor. Interactions between all predictors making up the final main effects models were assessed. Interactions that were non-significant (p>0.05) when entered in the model were removed. For
ordinal regression, the proportional odds assumption was assessed using the Brant test ("Ordinal logistic regression," n.d.). The fit of the logistic regression model was assessed using the Hosmer-Lemeshow goodness-of-fit test.

5.4 Results

A total of 368 (response rate =10.3%) veterinarian participants completed the questionnaire. Participants were primarily female (77%) with a mean age of 46 years (range 26 to 74). Eighty percent of participants reported attending a Canadian school. Most participants (77%) were employed in a small animal hospital located in an urban area (55%) and performed euthanasias in the clinic’s exam room (53%). Sixty-five percent of participants were employed in a clinic that typically performed 1 to 5 euthanasias per week and thirty percent of participants worked in a clinic with 6-10 employees. Participants reported scheduling between <30 minutes for wellness (82%) and euthanasia appointment (49%). Participants’ average empathy score was 114 out of 140 (SD=12) and years in practice was 18.5 (SD=12; Range 1-54 years). The internal consistency of the JSE-V scale was assessed using Cronbach alpha, which proved good (alpha = 0.82), indicating acceptable internal consistency (Tavakol & Dennick, 2011). Additional demographics are summarized in Table 5.1.

The top three topics practices which participants reported always discussing with clients included: inquiring about clients’ previous experience with euthanasia or death; inquiring about clients’ relationship with their companion animal; and assessing clients’ emotional state by using their intuition (i.e. perceptions) (Figure 5.1). Almost all participants (91%) agreed or strongly agreed that it was important to assess the individual wishes of clients during the companion animal euthanasia process. Seventy-two percent also agreed or strongly agreed that it was important to tailor how they practiced euthanasia based on the client’s wishes.
The top three support practices which were always used by participants included providing comfort items and using sympathy and empathy (Figure 5.2). Almost all participants (96%) reported providing some form of follow-up care of which 80% agreed and strongly agreed that follow-up care was an important form of client support. Least used by participants was providing clients with bereavement resources or information (5%), or always attempting to relate, reminisce or reassure clients during companion animal euthanasia.

As demonstrated in Tables 5.2 and 5.3, the amount of time scheduled for euthanasia appointments was positively and significantly associated with almost all bond-centered practices. This included several emotional support practices as well as veterinarians’ inquiring about clients’ expectations and emotional experience, human-animal bond, and existing support network. Participants’ self-reported empathy was significantly associated with almost all emotional support practice (Table 5.3 and 5.4) including the extent to which participants inquired about the client’s emotional state directly and through intuition, the client’s human-animal bond, and their existing support network (Table 5.2). Similarly, as seen in Tables 5.3, participants’ years in practice was positively associated with veterinarians’ use of support practices including, offering comfort items, remaining present, using physical contact, relating, reminiscing and reassuring clients, as well as the use of bereavement resources and information (Table 5.4). Furthermore, years in practice was positively associated with the extent to which veterinarians inquired about a client’s expectations, their emotional state directly, and their existing support network (Table 5.2).

5.5 Discussion

Findings of the present study broaden our understanding of how veterinarians in Ontario utilize bond-centered practices during companion animal euthanasia, including the associations
between veterinarians’ self-reported empathy, years in practice, and amount of time scheduled for euthanasia appointments and veterinarians' use of bond-centered practices.

Findings suggest that while participating veterinarians felt it was important to assess the wishes of clients and alter their euthanasia practices based on clients' wishes, veterinarians may not be consistently exploring the experiences, expectations and emotions of clients during companion animal euthanasia. These findings are supported by previous research (Nogueira Borden et al., 2019) involving standardized client attending a veterinary practice unannounced to simulate and examine end-of-life conversations. Exploring the expectations and emotional experience of clients can provide important information to veterinarians, particularly during end-of-life care and euthanasia (Adams et al., 2000; McCutcheon & Fleming, 2001; Nogueira Borden et al., 2010). Such information includes gaining a better understanding of clients’ wishes for their companion animal, clients’ previous experiences with euthanasia or loss, and the potential impact of factors known to play a role in the level of grief pet owners may experience following pet loss. Findings from human research suggest that a better understanding of patients’ expectations and needs, and tailoring care based on these needs, can contribute to better health outcomes (Kuipers, Cramm, & Nieboer, 2019). Similar practices may apply to veterinary medicine (Nogueira Borden et al., 2010). As such, veterinarians should consider exploring the expectations and perceptions of clients to develop a deeper appreciation and understanding of the clients’ experience. Veterinarians could begin to explore this by asking clients about the previous experience with euthanasia, how they view their companion animal (e.g. family member or pet), if they have a support network at home, as well as what their expectations and needs are around the euthanasia of their pet. From a client’s perspective, it is still unclear as to what extent they expect veterinarians to understand their experience and explore psychosocial topics (e.g. factors
related to patients’ social environment, health and wellbeing). As such, future research may wish to better clarify the extent to which clients expect their veterinarian to explore their experiences, expectation and emotions and the impact of exploring such topics has on clients' satisfaction and grief experience following pet loss, and if clients even wish to share this information to begin with.

Veterinarians participating in the present study reported using a variety of emotional support practices when supporting pet owners during companion animal euthanasia. Interestingly, three support practices (i.e. offering comfort items, sympathy and empathy) were reported to almost always be used to support pet owners while, the other seven support practice were used irregularly. While the three most commonly used support practices are well-recognized and encouraged methods of support in veterinary literature (Lagoni et al., 1994; Bishop et al., 2016; Shanan et al., 2017), participants’ partiality towards these select few support practices may suggest that there is an opportunity for veterinarians to more consistently employ a greater variety of support practices when supporting pet owners. For example, in addition to communicating empathetically, using sympathy and providing comfort items, veterinarians can ensure they always normalize a clients’ emotions and provide reassurance. It is likely, however, that no one combination of support practices will fit the supportive needs of every pet owner. Instead, it is important that veterinary professionals actively explore and attend to the individual needs of each pet owner and tailor their support practice to each owners’ needs.

Based on findings of the current study, very few participants reported always or very often providing clients with bereavement information and resources (e.g. written information or access to professional services). While previous research suggests that only 12% of pet owners expect veterinarians to discuss the emotions they may experience following pet loss (Fernandez-
Mehler et al., 2013), considering the place that companion animals now hold in human lives, it is not unreasonable to think that pet owners may benefit from access to grief-related resources and information (Lagoni et al., 1994). A similar position is held by many veterinarian organizations which recommend that veterinary professionals connect with and provide pet owners with access to grief-related resources and information (Bishop et al., 2016; Canadian Veterinary Medical Association, 2014; Leary et al., 2013; The College of Veterinarians of Ontario, 2016). A way to passively provide these resources, in light of the small percentage of pet owners who may wish to discuss these topics with their veterinarian, is to have grief-related information openly accessible and on display in waiting, exam or euthanasia rooms (Dawson, 2008; Lagoni et al., 1994). Alternatively, listing resources on clinic websites or attaching links to online resources in clinic communications can also make this information more accessible (Dawson, 2008; Lagoni et al., 1994). Furthermore, veterinary professionals may wish to connect with trained counselling professionals, services and support groups in their area whose information and assistance can also be used to provide additional support to pet owners. Moreover, experts (Lagoni et al., 1994; Wynn & Shanan, 2017) suggest that collaboration with such professionals and services can assist in lessening the emotional burden on veterinary professionals when navigating the supportive needs of pet owners and indeed, some veterinary clinics have already begun integrating such professionals (Larkin, 2016).

With increasing time, participants had a greater odds of using bond-centered communication and support practices. The time scheduled for euthanasia procedures was positively associated with almost all bond-centered communication and support practices. It is important to note, however, that due to the cross-sectional design of the present study, causation cannot be determined. Therefore, it may be that having more time leads to greater use of bond-
centered practices or that veterinarians who take more time are more likely to use bond-centered practices. In human medicine, research found that physicians who conduct longer appointments spend more time discussing psychosocial topics and focusing on patient-centred care (Deveugele, 2002; Hutton & Gunn, 2007). Furthermore, in veterinary medicine, previous research examining client and veterinarian perceptions of patient-centeredness during euthanasia discussions found that simulated clients who perceived their appointment to be longer also reported higher scores of patient-centred medicine from their veterinarian (Nogueira Borden et al., 2019). The findings of the present research suggest that time is an important component of bond-centered care.

Considering that over a third of participants in the current study reported scheduling less than 30 minutes for euthanasia appointments, there may be opportunities for veterinary professionals to consider increasing the amount of time scheduled for euthanasia appointments. Similar to their counterparts in human medicine, increased appointment time may allow veterinarians time to foster relationships, explore clients’ experiences, expectations and emotions, and offer tailored care, potentially resulting in improving clients’ satisfaction (Dugdale, Epstein, & Pantilat, 1999) and alleviation of client grief (Adams et al., 1999). It is recognized that there are many variables that can influence the amount of time scheduled for veterinary appointments (e.g. financial considerations, staffing levels); as such, veterinary professionals are encouraged to consider what might work best for them. Some practices which may already be in place include, strategically scheduling euthanasia appointments at less busy times of the day, using the assistance of other staff members, or, if feasible, performing in-home euthanasia, which can take more time to perform, but also allow for more time with clients.
In the current study, participants’ self-reported empathy was positively and significantly associated with client support practices such as: normalizing a clients’ emotions; offering physical contact; relating, reminiscing; reassuring; providing bereavement resources to clients as well as participants being more likely to inquire about the client’s emotional state; the clients’ relationship with their companion animal and their existing support network. Using the Jefferson Empathy Scale, empathy was defined as the ability to understand an individual’s situation, perspective or feelings, and to communicate and act on this understanding accurately and helpfully (Hojat et al., 2001). The relationship between participants' self-reported empathy and bond-centered care seen in the present study may be explained by Eisenberg & Miller (1987) who found individuals with greater self-reported empathy were more likely to practice prosocial behaviours and to seek to support others (Larkin, 2016). Therefore, participants with greater self-reported empathy may be more likely to understand a client’s experience and seek to help.

Previous research (Kramer, Ber, & Moore, 1989; Winefield & Chur-Hansen, 2000) has found that empathy skills can be significantly improved through teaching and feedback during patient and client interactions for both veterinary students and practicing veterinarians. As such, formal empathy skills training may be one means by which veterinarians can learn and improve their abilities related to bond-centered care and many veterinary schools have already begun to establish such training (Butler et al., 2002; Meehan & Menniti, 2014).

Participants’ years in practice (i.e. participants’ level of experience practicing veterinary medicine and companion animal euthanasia) were shown to be positively associated with several bond-centered practices. One explanation for this association may be that with more years in practice and experience veterinarians develop more confidence and competence around practicing companion animal euthanasia and supporting the emotional needs of clients and are,
therefore, more likely to use bond-centered practices. These findings are supported by previous qualitative research which found that veterinarians felt they developed their skills related to companion animal euthanasia through their professional experiences (Pilgram, 2010). These findings would suggest that veterinarians may benefit from further real or simulated experience with pet owners to practice and hone their skills. As such, veterinary and continuing education programs may wish to integrate participatory training for veterinary students and veterinarians around the use of bond-centered care during companion animal euthanasia.

Compared to the general population of veterinarians in Ontario, the population of veterinarians in the present study had a greater proportion of female participants, 58% vs 77% respectively (College of Veterinarians of Ontario, 2016), suggesting that self-selection bias may be present. The reason for this variation may be explained by previous research which found that females have a greater interest in human-animal bond-related topics (Martin, Ruby, & Farnum, 2003), and are therefore may be more likely to participate (Dillman, Christian, & Smyth, 2014; Groves, Cialdini, & Couper, 1992). However, the study population was comparable to the general population in other ways. For instance, according to a College of Veterinarians’ of Ontario report, the average age of veterinarians in 2016 was 46 years, consistent with the current study. When comparing the proportion of veterinarians based on their school of graduation, 80% of participants in this study reported graduating from a Canadian veterinary school, similar to 79% within the larger veterinary population in Ontario (College of Veterinarians of Ontario, 2016). Therefore, while there may be the potential for selection bias, the population in this study was representative in other ways. The current study was limited to a relatively small geographical range, focusing on veterinarians in Ontario, Canada. As such, caution should be considered if attempting to generalize the findings of the present study to veterinarians practicing
in different provinces or countries which may have different legislation or guidelines, cultural
difference or views on euthanasia. Lastly, it is important to consider and reflect on the usefulness
of statistical methods in describing such complex processes as companion animal euthanasia.
Many of the multivariable regression models resulted in low R² suggesting that much of the
variation is unexplained by the models. As such, while the models in the current study assist in
describing the magnitude and strength of association between predictors and outcomes, some of
the unexplained variations may be attributed to quantitative methodologies’ lack of ability to
understand all aspects of companion animal euthanasia.

Further research is needed to explore clients’ perceptions and experiences during
companion animal euthanasia, more specifically, how a client’s experience is impacted by
veterinarians’ use of bond-centered practices. Combining the perceptions and practices of both
veterinarians and clients may assist in informing standards of practice or best-practice guidelines
which may improve both clients' and veterinarians' experience and wellbeing.
References


10. Adams CL, Bonnett BN, Meek AH. Owner response to companion animal death:


journal of medical education, 2, 53.


44. Larkin M. For human needs, some veterinary clinics are turning to a professional. *J Am Vet Med Assoc* 2016;8–12.


55. Martin F, Ruby K, Farnum J. Importance of the human-animal bond for pre-veterinary,


Figures

**Figure 5.1.** How often (always; often and sometimes; rarely and never) veterinary professional (n=368) reported using practices to explore a client’s experiences, expectations and emotions during companion animal euthanasia.
Figure 5.2. How often (always; often and sometimes; rarely and never) veterinary professional (n=368) reported using practices to emotionally support bereaved pet owners during companion animal euthanasia.

- Provide comfort items (i.e. tissues, water, etc.)
- Sympathy (e.g. “I am sorry…”)
- Empathy (e.g. “I can imagine this must be difficult”)
- Validate emotions (e.g. “It is okay…”)
- Remain present in the room with clients
- Normalize emotions (e.g. “It’s normal…”)
- Physical contact (e.g. hug, hand on shoulder)
- Relate to clients (e.g. “I have also…”)
- Reminisce with clients (e.g. “I remember when…”)
- Reassure clients (e.g. “It will be okay.”)

% of participants
### Table 5.1. Participants’ (n=368) descriptive statistics.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency #(%) (n=368)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>285 (77)</td>
</tr>
<tr>
<td>Male</td>
<td>83 (23)</td>
</tr>
<tr>
<td><strong>Country of Training</strong></td>
<td></td>
</tr>
<tr>
<td>Canadian School</td>
<td>294 (80)</td>
</tr>
<tr>
<td>Non-Canadian school</td>
<td>74 (20)</td>
</tr>
<tr>
<td><strong>Clinic Type</strong></td>
<td></td>
</tr>
<tr>
<td>Small animal</td>
<td>294 (80)</td>
</tr>
<tr>
<td>Mixed</td>
<td>19 (5)</td>
</tr>
<tr>
<td>Emergency</td>
<td>24 (6)</td>
</tr>
<tr>
<td>Other (e.g. mobile, locum, humane society)</td>
<td>34 (9)</td>
</tr>
<tr>
<td><strong>Clinic Location</strong></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>194 (55)</td>
</tr>
<tr>
<td>Suburban</td>
<td>83 (23)</td>
</tr>
<tr>
<td>Rural</td>
<td>72 (21)</td>
</tr>
<tr>
<td><strong>Location of Euthanasia</strong></td>
<td></td>
</tr>
<tr>
<td>Exam room</td>
<td>185 (50)</td>
</tr>
<tr>
<td>Euthanasia room</td>
<td>130 (35)</td>
</tr>
<tr>
<td>In client’s home</td>
<td>25 (7)</td>
</tr>
<tr>
<td>Treatment room</td>
<td>10 (3)</td>
</tr>
<tr>
<td><strong>Number of Euthanasias/week</strong></td>
<td></td>
</tr>
<tr>
<td>&lt;1</td>
<td>53 (14)</td>
</tr>
<tr>
<td>1 to 5</td>
<td>240 (65)</td>
</tr>
<tr>
<td>&gt;5</td>
<td>78 (21)</td>
</tr>
<tr>
<td><strong>Number of Staff</strong></td>
<td></td>
</tr>
<tr>
<td>1 to 5 employees</td>
<td>99 (27)</td>
</tr>
<tr>
<td>6 to 10 employees</td>
<td>111 (30)</td>
</tr>
<tr>
<td>11 to 15 employees</td>
<td>82 (22)</td>
</tr>
<tr>
<td>&gt;15 employees</td>
<td>78 (21)</td>
</tr>
<tr>
<td><strong>Time Schedule for Wellness Appointments</strong></td>
<td></td>
</tr>
<tr>
<td>&lt; 30 minutes</td>
<td>234 (64)</td>
</tr>
<tr>
<td>30 to 45 minutes</td>
<td>38 (10)</td>
</tr>
<tr>
<td>&gt; 45 minutes</td>
<td>10 (3)</td>
</tr>
<tr>
<td><strong>Time Schedule for Euthanasia Appointments</strong></td>
<td></td>
</tr>
<tr>
<td>&lt; 30 minutes</td>
<td>181 (49)</td>
</tr>
<tr>
<td>30 to 45 minutes</td>
<td>128 (35)</td>
</tr>
<tr>
<td>&gt; 45 minutes</td>
<td>61 (16)</td>
</tr>
</tbody>
</table>
Table 5.2. Results of six multivariable ordinal regression models examining the association between the extent to which veterinarians’ (n=368) reported exploring a client’s experiences, expectations and emotions during companion animal euthanasia and veterinarians’ self-reported empathy, years in practice, and amount of time scheduled for euthanasia appointments.

<table>
<thead>
<tr>
<th>Exploration of clients’ experiences, expectations and emotions</th>
<th>Empathy score</th>
<th>Years in practice</th>
<th>Amount of time scheduled for euthanasia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inquires about the client’s expectations</td>
<td></td>
<td>1.03</td>
<td>Referent group</td>
</tr>
<tr>
<td>N=360, R²=0.022 (p&lt;0.001)</td>
<td></td>
<td>(1.01, 1.05)</td>
<td>(1.11, 2.56)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&lt;0.001</td>
<td>0.005</td>
</tr>
<tr>
<td>Inquires about clients’ emotional state through intuition</td>
<td>1.04</td>
<td></td>
<td>Referent group</td>
</tr>
<tr>
<td>N=330, R²=0.042 (p&lt;0.001)</td>
<td></td>
<td>(1.02, 1.06)</td>
<td>(1.11, 2.76)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&lt;0.001</td>
<td>0.015</td>
</tr>
<tr>
<td>Inquires about clients’ emotional state directly (e.g. How are you feeling?)</td>
<td></td>
<td>1.03</td>
<td>Referent group</td>
</tr>
<tr>
<td>N=328, R²=0.045 (p&lt;0.001)</td>
<td></td>
<td>(1.01, 1.05)</td>
<td>(1.06, 2.62)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&lt;0.001</td>
<td>0.026</td>
</tr>
<tr>
<td>Inquires about the client’s previous experience with</td>
<td></td>
<td></td>
<td>Referent group</td>
</tr>
<tr>
<td>euthanasia</td>
<td></td>
<td></td>
<td>(1.02, 2.35)</td>
</tr>
<tr>
<td>N=369, R²=0.054 (p=0.008)</td>
<td></td>
<td></td>
<td>0.042</td>
</tr>
<tr>
<td>Inquires about the client’s relationship with their</td>
<td></td>
<td>1.97</td>
<td>Referent group</td>
</tr>
<tr>
<td>companion animal</td>
<td></td>
<td></td>
<td>(1.29, 2.99)</td>
</tr>
<tr>
<td>N=369, R²=0.018 (p&lt;0.001)</td>
<td></td>
<td></td>
<td>0.002</td>
</tr>
<tr>
<td>Inquires about the client’s support network</td>
<td>1.02</td>
<td>1.03</td>
<td>Referent group</td>
</tr>
<tr>
<td>N=348, R²=0.045 (p&lt;0.001)</td>
<td>(1.00, 1.04)</td>
<td>(1.01, 1.04)</td>
<td>(1.62, 3.90)</td>
</tr>
<tr>
<td></td>
<td>0.046</td>
<td></td>
<td>(1.88, 6.27)</td>
</tr>
</tbody>
</table>

Legend: Odds Ratio (95% CI) p-value.

Shaded cells represent non-significant predictors removed from the final reduced model.

Outcomes included the extent to which (always, often, sometimes, rarely, never) veterinarians reported 1) inquiring about clients’ expectations, 2) inquiring about clients’ emotional state through intuition, 3) inquiring about clients’ emotional state directly, 4) inquiring about clients’ previous experience with euthanasia, 5) inquiring about clients’ relationship with their companion animals, and 6) inquiring about clients’ support networks. Predictors included veterinarians’ empathy score measured by the Jefferson Empathy Scale (Hojat et al., 2001), reported number of years in practice (continuous), and the amount of time scheduled for euthanasia (<30 minutes; 30-45 minutes; >45 minutes)
Table 5.3. Results of ten multivariable ordinal regression models examining the association between the extent to which veterinarians’ (n=368) reported using various client support practices and their self-reported empathy, years in practice, and amount of time scheduled for euthanasia appointments.

<table>
<thead>
<tr>
<th>Client support practices</th>
<th>Empathy score</th>
<th>Years in practice</th>
<th>Amount of time scheduled for euthanasia</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>&lt;30 min.</td>
</tr>
<tr>
<td>Provide comfort items (i.e. tissues, water, etc.) N= 347, R²=0.034 (p=0.002)</td>
<td>1.03 (1.01, 1.05)</td>
<td>1.03 (1.00, 1.05)</td>
<td>0.002</td>
</tr>
<tr>
<td>Sympathy (e.g. “I am sorry…”) N= 359, R²=0.012 (p=0.019)</td>
<td>0.97 (0.96, 0.99)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Empathy (e.g. “I can imagine this must be difficult”) N= 355, R²=0.034 (p&lt;0.001)</td>
<td>1.03 (1.01, 1.05)</td>
<td></td>
<td>Referent group</td>
</tr>
<tr>
<td>Validate emotions (e.g. “It is okay…” N= 353, R²=0.032 (p&lt;0.001)</td>
<td>1.04 (1.02, 1.06)</td>
<td></td>
<td>Referent group</td>
</tr>
<tr>
<td>Remain present in the room with clients N= 360, R²=0.023 (p&lt;0.001)</td>
<td></td>
<td>1.02 (1.01, 1.04)</td>
<td>0.000</td>
</tr>
<tr>
<td>Normalize emotions (e.g. “It’s normal…” N= 346, R²=0.031 (p&lt;0.001)</td>
<td>1.03 (1.01, 1.05)</td>
<td></td>
<td>Referent group</td>
</tr>
<tr>
<td>Physical contact (i.e. hug, hand on shoulder, etc.) N= 347, R²=0.090 (p&lt;0.001)</td>
<td>1.03 (1.02, 1.05)</td>
<td>1.06 (1.04, 1.08)</td>
<td>0.000</td>
</tr>
<tr>
<td>Relate to clients (e.g. “I have also…” N= 348, R²=0.026 (p&lt;0.001)</td>
<td>1.03 (1.01, 1.05)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reminisce with clients (e.g. “I remember when…” N= 345, R²=0.025 (p&lt;0.001)</td>
<td>1.04 (1.02, 1.05)</td>
<td>1.02 (1.00, 1.04)</td>
<td>0.000</td>
</tr>
<tr>
<td>Reassure clients (e.g. “It will be okay.”) N= 352, R²=0.017 (p&lt;0.001)</td>
<td>1.03 (1.01, 1.04)</td>
<td></td>
<td>Referent group</td>
</tr>
</tbody>
</table>

Legend: Odds Ratio (95% CI) p-value.
Shaded cells represent non-significant predictors removed from the final reduced model.
Outcomes included the extent to which (always, often, sometimes, rarely, never) veterinarians’ reported using 10 pre-identified support practices (providing comfort items, sympathy, empathy, validating emotions, remaining present, normalizing emotions, physical contact, relating to clients, reminiscing with clients, and reassuring clients).
Predictors include veterinarians’ empathy score measured by the Jefferson Empathy Scale (Hojat et al., 2001), reported number of years in practice (continuous), and the amount of time scheduled for euthanasia (<30 minutes; 30-45 minutes; >45 minutes.)
Table 5.4. Results of one multivariable logistic regression model examining the association between veterinarians’ (n=368) reported use of bereavement information and resources and veterinarians’ self-reported empathy, years in practice, and amount of time scheduled for euthanasia appointments.

<table>
<thead>
<tr>
<th>Client support practices</th>
<th>Empathy score</th>
<th>Years in practice</th>
<th>Amount of time scheduled for euthanasia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Used bereavement resources and information</td>
<td>1.03</td>
<td>0.019</td>
<td>0.05 (0.53, 2.08) 0.881 (1.56, 6.59) 3.21 (0.002)</td>
</tr>
<tr>
<td>N= 354, R²=0.061 (p&lt;0.001)</td>
<td></td>
<td></td>
<td>Referent group</td>
</tr>
</tbody>
</table>

Legend: **Odds Ratio** (95% CI) *p*-value.

- Shaded cells represent non-significant predictors removed from the final reduced model.
- Outcomes included veterinarians’ use (yes or no) of 1) bereavement resources and information, and 2) follow-up care (i.e. condolence cards, phone call). The model examining veterinarians’ use of follow-up (e.g. condolence cards) was non-significant R²=0.017 (p=0.578) and therefore not reported in the present table.
- Predictors include veterinarians’ empathy score measured by the Jefferson Empathy Scale (Hojat et al., 2001), reported number of years in practice (continuous), and the amount of time scheduled for euthanasia (<30 minutes; 30-45 minutes; >45 minutes).
CHAPTER 6: Exploring pet owners’ experiences, expectations, self-reported satisfaction and grief following companion animal euthanasia

A version of the original manuscript formatted as per requirements for submission to Veterinary Record is presented here. Matte, A., Khosa, D., Meehan, M., Coe, J. & Niel, L. Exploring pet owners’ experiences, expectations, self-reported satisfaction and grief following companion animal euthanasia, under journal review.
6.1 Abstract

**Background:** While euthanasia is a common feature of veterinary practice, research has yet to adequately explore the experiences, perception and wishes of pet owners including their satisfaction and grief following companion animal euthanasia.

**Methods:** An online questionnaire was utilized with pet owners who had experienced euthanasia within the last 10 years to explore the relationship between pet owners’ experience and their resulting overall satisfaction and grief. Data were analyzed using descriptive statistics and multivariable linear regression.

**Results:** Overall, participants (n=2354) reported high levels of satisfaction with their euthanasia experience. Participants who were more satisfied with the administration practices, emotional support and follow-up care provided, and with how their pet’s remains were cared for reported greater levels of overall satisfaction. Participants reported greater levels of grief if it was their first euthanasia experience, if they considered their companion animal to be a member of the family, if the euthanasia was emergent or sudden and if they were unsatisfied with the emotional support they received.

**Conclusion:** Based on these findings, several practical recommendations are made including developing standard operating procedures for companion animal euthanasia; exploring owners’ experiences, expectations, and emotions, and the importance of providing emotional support including access to grief resources.

6.2 Introduction

For most pet owners, the loss of a beloved companion animal can lead to feelings of grief similar to grief due to human loss (Kemp, Jacobs & Stewart, 2016). Veterinary professionals dedicated to the care and support of companion animals and pet owners can make a meaningful
difference in an owner’s grief experience following pet loss (Adams, Bonnet & Meek, 1999, 2000). The way veterinary professionals manage a companion animals’ end-of-life care can assist in alleviating or, otherwise aggravate a pet owners’ grief. Today, veterinary professionals seek to not only provide medical care for the companion animal but also address the emotional wellbeing of pet owners (Lagoni & Butler, 1994; Bishop, Cooney, Cox, et al., 2016). For these reasons, veterinary professionals must be able to provide competent medical care, as well as emotional care to companion animals and pet owners as they navigate companion animal’s end-of-life care.

Many veterinary professionals may feel unprepared or uncertain about how best to support or communicate with pet owners during companion animal euthanasia (Tinga, Adams, Bonnet, et al. 2001; Dickinson, Roof & Roof, 2011; Matte, Khosa, Meehan et al., 2019). While some guidelines exist to assist veterinary professionals in managing companion animal end-of-life care and the emotional support of pet owners (Bisop et al., 2016; Canadian Veterinary Medical Association, 2014, College of Veterinarians of Ontario, n.d.), many recommendations made in these guidelines presently lack research-based evidence. Some research has begun to bridge these gaps, however, many do so only from the perspective of veterinary professionals (Pilgram, 2010; Morris, 2012; Matte, et al., 2019), with only a few studies offering insight into pet owners’ perceptions and expectations related to companion animal end-of-life care (Fernandez-Mehler, Gloor, Sager, et al., 2004; Martin, Ruby, Deking et al., 2004). More research is needed to gain a better understanding of the pet owner’s perceptions, experiences and expectations related to companion animal euthanasia and related emotional support.

In human medicine, research has explored the experiences, expectations and satisfaction of patients and their families as they navigate end-of-life care and has subsequently assisted in
shaping both the practices and theories associated with end-of-life care (Canadian Quality End-of-Life Care Coalition, n.d.). For example, research has identified some of the most important expectations of human patients and their caregivers including having trust and confidence in their physicians, receiving effective communication, respect and compassionate care (Virdum, Luckett, Davidson et al., 2015). Several of these practices have also been shown to be associated with patient and caregiver satisfaction, such as having a healthcare provider who is accessible, competent, and a good communicator, as well as, receiving the appropriate information, emotional support and personalized care (Dy, Shugarman, Lorenz et al., 2008).

Exploring pet owner’s perceptions, experiences and expectations about end-of-life care can provide important information which can assist in the development of evidence-based practice guidelines and training for veterinarians. Furthermore, it can assist veterinary professionals in providing end-of-life care which has the potential to improve pet owners’ satisfaction (Ormerod, 2008), and this, in turn, may assist in alleviating pet owners’ grief. The present study, therefore, aimed to describe pet owners’ perceptions and satisfaction with their experience of companion animal euthanasia.

6.3 Materials and Methods

Study protocols were approved by the institution’s research ethics board (REB#14MY006).

6.3.1 Focus Group Methodology

6.3.1.1 Participants

Eligible participants included pet owners who had experienced companion animal euthanasia within the past 5 years. Participants had to be 18 years or older at the time of euthanasia and present at the time of euthanasia. Participants were recruited through
advertisements disseminated through the Ontario Veterinary College (OVC) bulletin and various social media platforms (e.g. Facebook, Twitter, pet and veterinary related blogs).

6.3.1.2 Interview structure

A semi-structured interview guide consisting of three sections explored: 1) participants’ description of their companion animal and euthanasia experience; 2) participants’ opinions of the practices and support provided by their veterinarian; and 3) participants’ perceptions of how their experience impacted their satisfaction with their euthanasia experience and subsequent perceived ability to cope with pet loss. The question guide was piloted with graduate students in the institutions’ department to assess accurate interpretation of questions. To ensure participants were comfortable discussing their experience they were offered an option to participate in either a focus group or one-on-one interview format. All participants selected a focus group format. All interviews were conducted and moderated by the first author at the OVC in the Department of Population Medicine. Participants provided consent to participate prior to interviews, and following the interviews, a demographic survey developed by the researchers was administered to all participants.

6.3.1.3 Focus group data analysis

All interviews were audio recorded and transcribed verbatim by the first author or a professional transcriptionist. Accuracy of transcription was assessed, and all transcripts were de-identified by assigning a sequential number-letter combination (i.e. A1 is identified as the interview “A”, participant #1) to participants’ quotes. Inductive thematic analysis (Braun & Clarke, 2006) was conducted on all transcriptions with the aid of the qualitative data analysis software NVivo (QSR International Pty Ltd., NVivo 12©, 2017) by the first author. In brief, transcripts were read multiple times ensuring familiarity, code words were applied to sections of
text to represent concepts participants were describing (e.g. opinions, procedures, ideas), similar concepts were then grouped together, further classified into themes and subthemes and described in a codebook. Themes, subthemes, and codes were systematically reviewed, named and defined by the first author. The final data analysis process involved a comprehensive review process involving the first and second authors. Authors reviewed individual codes, themes, subthemes, their attributed names and the overall relationship among themes. Demographic information was analyzed using descriptive statistics.

Data saturation was reached after conducting a total of six focus groups with 35 pet owners (Braun & Clarke, 2006). Between 3 and 8 participants (average 6 people) attended each focus groups and they ranged in length from 100 to 154 minutes (average of 118 minutes). Most participants were female (97%), had a bachelor’s degree (47%), were married (44%), were on average 40 years of age (range 18 to 67 years). Most participants reported experiencing companion animal euthanasia approximately 2 years ago, losing a dog (43%), who they viewed to be a member of the family (82%), and who was on average 11 years old.

6.3.2. Questionnaire methodology

6.3.2.1. Study and questionnaire design

A cross-sectional study using a questionnaire was conducted between October and November 2018. The questionnaire consisted of 45 questions grouped into four sections. To model the relationship between participants’ experiences and resulting grief, participants were asked to respond to all questions based on recalling one euthanasia experience, either their most recent or most memorable experience.

6.3.2.2 Section one: Participant, companion animal and veterinary setting characteristics
Participant characteristics included their age; gender; employment status; relationship status, and number of children. Companion animal information included: the companion animals’ species (i.e. cat or dog) and age at euthanasia. Information on the veterinary setting included: the location of the euthanasia (veterinary clinics with an exam room; veterinary clinics with a euthanasia room; at the participant’s home and with their regular veterinarian; at the participant’s home using a mobile veterinary service; at an emergency clinic with an exam room; or at an emergency clinic with a euthanasia room), and the veterinarian’s gender. The number of previous euthanasia experiences of each participant, how participants viewed their relationship with their companion animal [family member (assigned score of 1), companion (assigned score of 2) or pet (assigned score of 3)]; how many years ago the euthanasia occurred; if there was someone else present with the pet owner at the time of euthanasia (e.g. partner/spouse, family member, friend, or another pet), and participants’ perceived strength of their veterinary-client relationship (measured on a scale of 1 to 10, with a higher number indicating a stronger relationship) were also collected.

6.3.2.3 Section two: Participants’ experience and satisfaction

Six important aspects of the euthanasia process were identified through a review of existing literature (Lagoni et al., 1994; Bishop et al., 2016; Leary, Underwood, Anthony, et al., 2013), a previous publication (Matte et al., 2019), and focus group discussions with pet owners. These included: 1) administrative practices which included payment and paperwork, 2) communication practices used by the veterinarian; 3) the protocols involved in performing euthanasia; 4) emotional support practices, 5) follow-up care (e.g. condolence card), and 6) care for the animal’s remains. For each aspect, participants were asked to rate their overall satisfaction with each respective area on a scale of 1-10; a higher number indicating a greater
level of satisfaction. Participants’ satisfaction with their overall euthanasia experience was also assessed on a scale of -100 (very negative experience) to 100 (very positive experience) with 0 indicating a neutral experience.

6.3.2.4 Section three: Participants’ wishes, and expectations related to companion animal end-of-life care

Based on information gained from a previous qualitative phase of research, eleven common wishes and expectations held by pet owners relating to companion animal end-of-life care were identified (Table 4). Participants were asked to report their level of agreement on a 5-point Likert scale (1=strongly disagree to 5=strongly agree). Participants’ expectations related to emotional support care were assessed. Participants were asked to rank the importance of various sources of support (i.e. family/spouse, friends, colleagues, veterinary staff, other pets and crematoriums) as well as the importance of pre-identified (Matte et al., 2019) support practices (e.g. sympathy, empathy).

6.3.2.5 Section four: Participants’ grief following companion animal euthanasia

Participants’ grief following companion animal euthanasia was assessed using an adapted version of the Pet Bereavement Questionnaire (PBQ) (Hunt & Padilla, 2006). The PBQ consists of 20 questions assessing four domains of bereavement; grief, anger, guilt and trauma, each measured on a 4-point Likert scale (0=Disagree Strongly, 1=Disagree, 2=Agree, 3=Agree Strongly). Since the purpose of this present study was to explore pet owners’ grief, only questions assessing grief (7 items) were used. Questions included; “I was very upset about my pet’s death,” “My life felt empty without my pet,” “I felt lonely without my pet,” “I missed my pet enormously,” “I cry when I think about my pet,” “I was very sad about the death of my pet,” and “I’ll never get over the loss of my pet.” Participants were asked to recall and respond to
these question based on how they felt immediately following their euthanasia experience. Participants’ scores for all seven questions were added and resulted in an overall measure of grief ranging from 0 to 21, with a higher score indicating a higher degree of grief (Hunt & Padilla, 2006). The internal consistency of the grief portion of the Pet Bereavement Questionnaire was assessed using Cronbach alpha (Tavakov & Dennick, 2011). Participants were also asked to rate the extent to which they felt their overall experience at the time of euthanasia impacted their ability to cope with pet loss on a scale of -100 (my experience made my ability to cope much worse) to 100 (my experience made my ability to cope much better) with 0 indicating no effect.

6.3.3 Questionnaire distribution

The completed questionnaire was pilot tested by 10 pet owners within the researchers’ university setting. Piloting was used to assess and refine questionnaire length, clarity of questions and overall completeness. The final questionnaire was distributed using an online platform, Qualtrics ® (Qualtrics Survey Software®, 2017, Provo, Utah). Participants were invited using advertisements distributed through social media platforms (e.g. Facebook, Twitter), professional pet or veterinary-related websites or blogs, and the University of Guelph’s communication bulletin. All responses were anonymous and upon completion of the questionnaire, participants were provided with the option to enter a prize draw through a separate link, to win one of thirteen gift cards (two $200, three $100, four $50 and four $25 gift cards). Eligible participants had to be 18 years or older at the time of euthanasia and had have experienced euthanasia of a companion animal (i.e. cat, dog) within the last 10 years.

6.3.4 Statistical analysis
Completed questionnaire data were imported and reviewed in a database management program, Microsoft® Excel Software (2017, Redmond, Washington). Statistical models were analyzed in a standard statistical software program, (Stata 11; Stata Corporation, College Station, Texas, USA). Missing values were assessed and if less than 20% of responses were missing, the variable was retained for analysis (Dong & Peng, 2013). Descriptive statistics were calculated for all completed data and included frequency and distribution for categorical variables, means and medians for continuous responses.

Two multivariable linear regression models were conducted with a random effect controlling for the time since the euthanasia occurred and listwise deletion of all missing data (Dong & Peng, 2013). The first model assessed the relationship between pet owners’ perceptions of their experience and their overall satisfaction. The second model assessed the relationship between pet owners’ perceptions of their experience and their grief assessed using the adapted PBQ (Hunt & Padilla, 2006). Predictors assessing pet owners’ perceptions of their experience included pet owners’ satisfaction scores with the six pre-identified areas of practice (i.e. administration, communication, how the act of euthanasia was performed, emotional support, follow-up, and care for the animal’s remains) measured on a continuous (range of 1 to 10). Other predictors hypothesized to play a role in the pet owners’ experience a priori included, the strength of the human-animal bond (categorical, family (score 1); companion (score 2); pet (score 3)), strength of the veterinary-client relationship (continuous, 1-10), species of the companion animal (binary, dog (score 1); cat (score2)), number of previous euthanasia experiences (categorical, first; second; third; more than three), location of the euthanasia (categorical; veterinary clinic with exam room (score 1); veterinary clinic with euthanasia room (score 2); in-home with regular veterinarian (score 3); in-home with mobile veterinarian (score
Multicollinearity between predictors was assessed using Spearman rank test. If collinearity was $\geq 0.7$ (Dorman et al., 2013), the most plausible predictor was retained. For each model, univariable regression using a conservative p-value ($p<0.20$) was used to assess unconditional associations with the dependent variable. All variables with an unconditional association with the dependent variable were retained in the full multivariable models. Backwards stepwise regression was conducted and all non-significant predictors ($p<0.05$) were sequentially removed from the full multivariable model after assessing for confounding at the time of removal. If the odds ratio of the other predictors changed by more than 20% when the variable was removed, the variable was retained (Dohoo, Martin & Stryhn, 2012). If no confounding was found, the predictor was removed from the model. Linearity was assessed using a quadratic transformation of continuous predictors. If the quadratic was significant ($p<0.05$) when entered into the model, the relationship was considered to be non-linear and addressed by categorizing the predictor. Interactions between all predictors making up the final main effects models were assessed. Interactions that were non-significant p-value ($p>0.05$) when entered in the model were removed. Diagnostics including assessing homoscedasticity and normality were assessed on each final reduced multivariable model.

6.4 Results

A total of 2354 pet owners met the inclusion criteria and completed the questionnaire. Participants were primarily female (94%), married or in a domestic relationship (64%), had no children (59%), and held a bachelor’s degree (34%). The average age of participants was 46 years (range 18 to 89). Fifty-seven percent of participants resided in Canada, 38% in the United
States, and 5% in other international countries. Seventy-eight percent of participants considered their companion animal to be a member of their family, and 85% reported that the experience they based their responses on was not their first euthanasia experience. Seventy-five percent of participants reported having someone present with them, either a partner, family member, friend or other pets. The average number of years since the euthanasia occurred was 2 years, with a median of 1 year and range of a 2 hours to 10 years. Companion animals were on average 12 years old (range from a few months to 24 years) at the time of euthanasia, of which 68% were dogs and 32% cats. Sixty-four percent of the veterinarians who performed the euthanasias were female and when asked about their perceived strength of the relationship that exists between them and their veterinarian, participants reported an average score of 6.4 out of 10 (range 1 to 10). Additional pet owner and companion animal descriptive statistics are described in Table 6.1.

6.4.1 Euthanasia practices

6.4.1.1 Administration practices

Most participants (73%) reported completing the paperwork before the euthanasia procedure, followed by 25% after and 2% during the euthanasia procedure. Likewise, participants reported completing payment before (32%), after (33%), at another time and date (34%) or during the euthanasia (1%). Forty percent of participants reported that the financial cost of the euthanasia was what they expected, while, 22% thought it was more than expected, 6% less than expected, 22% percent responded that the services they received far outweighed the financial cost of euthanasia, and 12% reported that this question was not applicable.

6.4.1.2 Communication practices

On average, participants rated high levels of agreement when asked if they felt the process was fully explained to them (mean=8.8, SD=2.1), that the veterinarian prepared them for
what they might witness (mean=8.6, SD=2.3) and that they could ask the veterinarian at any time (mean=9.0, SD=2.0). Eighty-five percent of participants reported that their veterinarians asked them if they wished to remain present, 43% about their expectations regarding euthanasia and 30% about their previous experiences with euthanasia. Twenty-four percent reported that their veterinarian asked about their existing social support, 41% how they felt and 21% the emotions they might experience.

6.4.1.3 Technical protocols

Most participants (74%) reported that the technical aspects of the euthanasia (i.e. catheter placement, injections) were performed with them present in the room. Only 3% of participants reported choosing not to be present, while 13% reported that the veterinarian performed the technical protocols in a different room without them present. In terms of the protocols used, 51% recalled that their veterinarian used an intravenous catheter, 51% recalled the use of sedation, 17% anesthesia, and 8% did not recall.

6.4.1.4 Emotional support practices

Participants felt that the top three most important support practices were receiving reassurance, being provided time alone and receiving sympathy. Additional statistics on pet owners’ perceptions of support practices are described in Table 6.2. In terms of which sources of support were the most important, 34% ranked their friends were the most important, followed by colleagues (18%), family members (15%), their veterinarians and veterinary staff (15%), crematoriums (10%) and other household pets (7%).

Participants highly agreed that their veterinarian appreciated their human-animal bond (mean=8.9, SD=2.0). Thirty-two percent of participants reported receiving grief resources (i.e. brochures, information for a pet loss hotline, professional counsellor) following companion
animal euthanasia, and 29% reported seeking out grief resources. Twenty-two percent of participants reported that grief resources were helpful.

### 6.4.1.5 Follow-up practices

Most participants reported receiving a condolence card (75%), followed by a phone call (18%), donations in the pet’s name (18%), an email (6%), flowers (6%), and 16% did not receive any form of follow-up. Forty-nine percent of participants agreed or strongly agreed that they would appreciate a telephone call from their veterinarian following euthanasia. Participants thought that the follow-up they received was appropriate (score=8.7, SD=2.2) and that the follow-up care they received provided them with emotional support (score=8.0, SD=2.7).

### 6.4.1.6 Aftercare practices

On average, participants reported that memorializing their companion animal was important to them (mean=8.7, SD=2.3). Most participants (72%) selected cremation, followed by a home burial (14%), or did not select any (7%) memorialization for the remains of their companion animal. Participants reported that on average, they trusted their clinic to care for their pet’s remains (mean=8.8, SD=2.0), that they were satisfied with how the aftercare of their pet’s remains was discussed with them (mean=8.6, SD=2.2), and with the products they received (mean=9.0, SD=1.9).

### 6.4.2 Participants’ wishes related to companion animal end-of-life care

The top three most common wishes of participants related to companion animal end-of-life care included that they expected to be able to contact the veterinarian with any concerns or questions about their pets’ health leading up to euthanasia, for euthanasia to be performed in their home, and to have access to after-hour services for euthanasia. Additional summary statistics on participants’ wishes are presented in Table 6.3.
6.4.3 Satisfaction and euthanasia practices

Participants’ had an average overall satisfaction score of 68 (SD=47; Quartiles= 63, 87, 100) and responses ranged from -100 to 100. On average, participants reported high levels of satisfaction with all practice areas related to companion animal euthanasia. The highest satisfaction was reported for how the euthanasia was performed (mean=8.9, SD=2.1) and care of the animal’s remains (mean=8.8, SD=2.0). These were closely followed by communication practices (mean=8.7, SD=2.1), emotional support practices (mean=8.7, SD=2.2) and follow-up care (mean=8.7, SD=2.2). Similar satisfaction scores were reported for administration practices (mean=8.0, SD=2.2). Based on the linear regression model (Table 6.4), participants’ satisfaction with the administration practices, emotional support, follow-up care and care of the companion animals’ remains were significantly and positively associated with participants’ overall satisfaction.

6.4.4 Self-reported grief

The internal consistency of the grief portion of the Pet Bereavement Questionnaire resulted in an alpha value of $\alpha=0.88$, indicating excellent internal consistency. Table 6.5 reports additional statistics on participants’ responses to the Pet Bereavement Questionnaire.

When asked if participants felt that their euthanasia experience impacted their ability to cope with pet loss, participants reported fair agreement, resulting in an average score of 58.6 (SD=49; Quartiles =32, 79, 100). By assessing the correlation between participants’ grief and satisfaction following companion animal euthanasia, a small significant negative correlation was found (R=-0.09, p>0.001). Furthermore, upon assessment of the linear regression model (Table 6.6), those predictors with a significant and negative association with participants’ grief following companion animal euthanasia included the number of previous euthanasias.
participants had experienced, the type of the human-animal bond, and pet owners’ satisfaction with the emotional support they receive. Pet owners’ grief was found to be significantly and negatively associate with the location of the euthanasia, more specifically, if the euthanasia was performed in an emergency clinic.

6.5 Discussion

This study explored the relationship between pet owners’ perceptions and experience and their resulting satisfaction and grief following companion animal euthanasia. Overall, findings suggest pet owners are highly satisfied with their companion animal euthanasia experience. Those practices found to be significantly associated with pet owners’ overall satisfaction included the administration practices, emotional support, follow-up care and care of the companion animals’ remains.

Pet owners’ satisfaction with the emotional support they received from their veterinarians had the greatest association with their overall satisfaction following companion animal euthanasia; a finding which is supported by numerous studies and existing recommendations (Martin et al., 2004; Fernandez-mehler et al., 2013; Bishop et al., 2016). In the current study, participants felt that the most important support practices they should receive were receiving reassurance, having a moment alone (i.e. privacy) and their veterinarian expressing sympathy. While a greater percentage of participants felt that they received sympathy and time alone, only 59% of pet owners felt they received reassurance from their veterinary professionals. These findings suggest that there may be opportunities for veterinary professionals to use reassurance more often when supporting pet owners. Examples of reassurance may include, reassuring the pet owner that they have made the right decision, that the veterinarian will do their best to ensure the companion animal passes away peacefully, and reassurance that the veterinary staff are there
to support them. Reassurance intends to promote a sense of confidence in the pet owner around their decision, the process of euthanasia and the commitment of their veterinary professionals to the pet owner and the animal (Lagoni et al., 1994).

Participants’ perceptions of follow-up care were also important to pet owners’ satisfaction. In the current study, most participants reported receiving condolence cards with much fewer receiving follow-up phone calls or other forms of follow-up (e.g. emails, text, flowers) and a small percentage reported receiving no follow-up care at all. In previous research, some veterinary professionals reported feeling unsure as to the most effective method of follow-up with pet owners (Matte et al., 2019). Findings of the current study suggest that participants were very satisfied with the follow-up care they perceived receiving. However, almost half of the participants highlighted that receiving a phone call from their veterinary professionals following companion animal euthanasia would also be appreciated. In light of these findings, it may be worthwhile for veterinary professionals to use a combination of follow-up care practices such as condolence cards and phone calls to support pet owners.

Pet owners who were more satisfied with how their companion animal’s remains were cared for, and with the administration practices were more likely to report higher levels of overall satisfaction following companion animal euthanasia. Upon closer examination of these practices, most participants reported being highly satisfied with how cremation was discussed with them and the products they received. Furthermore, in terms of the administrative practices, most participants reported that the cost of euthanasia was reasonable and reported completing paperwork and payment before or during the euthanasia appointment; practices which are commonly recommended in veterinary guidelines (Lagoni et al., 1994; Shanan et al., 2017) and previous research (Martin et al., 2004). However, when compared to the other aspects of
euthanasia practices, participants reported the lowest satisfaction with administrative practices. The reason for the lower levels of satisfaction may simply be due to the nature of administration practices (asking for payment and signatures), which at times, may seem less sensitive than other aspects of end-of-life care. Future research may wish to explore how administrative practices can be done in a way that is most supportive of pet owners and result in greater levels of satisfaction.

Participants reported lower levels of grief if they had previously experienced companion animal euthanasia, if they considered their companion animal to be a pet or companion rather than a member of the family, and if they were satisfied with the emotional support they received. While participants reported higher levels of grief if the euthanasia was performed in an emergency clinic, most likely assuming the euthanasia was emergent or sudden. These findings are consistent with previous research which had found pet owners’ grief experience can be affected by variables such as an individuals’ previous life experiences, level of attachment (Adams et al., 2000; Eckerd, Barnett & Jett-Dias, 2016; McCutcheon & Fleming, 2001), if the euthanasia is traumatic or unexpected (Planchon, Templer, Stokes, et al., 2002; Stephens & Holl, 1996) and if they felt supported by their veterinary professionals (Adams et al., 1999; Rémillard et al., 2017). While emergency euthanasias are likely to occur within emergency veterinary clinics, it is also likely that such instances of emergent or unexpected euthanasia also occur within other veterinary settings (e.g. primary care veterinary clinics). Therefore, all veterinary professionals are encouraged to take factors such as the nature and circumstance of the euthanasia into consideration, particularly veterinarians managing euthanasia in an emergency clinic. By taking these factors into consideration, veterinary professionals can tailor their support to the potential needs of each pet owners. For example, if a pet owner has not experienced euthanasia before, if they have a strong attachment to their companion animal and if the
euthanasia is emergent or sudden, pet owners may benefit from additional support. By tailoring their support, veterinary professionals have the potential to enhance pet owners’ satisfaction and, in turn, lessen their grief experience.

In terms of pet owners’ wishes and expectations related to companion animal euthanasia, pet owners strongly supported the need for contact with their veterinary professionals throughout the stages of end-of-life care, to have after-hour services available, and to have the option to have their companion animal’s euthanasia performed in their homes. Other areas of practice which may warrant more attention based on findings of the current study include explorations of pet owners’ expectations, experiences and emotions. In the current study, less than half of the pet owner participants perceived that their veterinarian explored their feelings, expectations and previous experiences with pet loss or euthanasia. Even fewer reported that their veterinarian asked about their existing social support. Other findings of the current study suggest that nearly half of the participants would appreciate their veterinarian exploring their feelings, needs and expectations as well as being asked about their emotions during companion animal euthanasia.

In human medicine, some physicians may avoid conversations around emotional or social impacts on patients (Maguire, 2002) or discourage patients from voicing their concerns or expectations (DiMatteo, 1998). The avoidance of these conversations can cause patients to feel disempowered and prevent them from asking for important information or explanations (Maguire, 2002; DiMatteo, 1998). The reason these conversations may sometimes be avoided or discouraged is that physicians may think they are not able to handle the issue or do not have the time to do so adequately (Maguire, 2002; Ha & Longnecker, 2010). Similar circumstances may also apply to veterinary medicine. If so, veterinary professionals may benefit from communication training specifically on ways to elicit information on pet owners’ feelings, needs
and expectations, particularly around the practice and impacts of companion animal euthanasia, as well as be provided the time to navigate these discussions fully.

More than half of the participants reported interest in receiving information and resources related to grief and bereavement. Participants were also interested in having professionals or staff trained in pet loss and counselling accessible to them during companion animal end-of-life care and euthanasia. In the current study, however, only 32% of participants reported receiving access to grief resources or professionals through their veterinary clinic. One possible reason for the limited use of grief resources maybe because there are currently limited resources available to pet owners (Dulmus & Sower, 2012). Furthermore, research suggests that veterinary professionals may not always be aware of existing resources or even feel that pet owners may not desire them (Matte et al., 2019). As such, future research should more thoroughly explore how veterinary professionals currently utilize bereavement resources, including client’s expectations around receiving resources to ensure the expectations and practices of veterinarians and pet owners align.

Participants also reported their experience with euthanasia could alleviate or aggravate their ability to cope with the loss; a perception that is supported by previous research (Adams et al., 1999, 2000). This reinforces the critical importance of the role that veterinary practitioners and staff play when managing the euthanasia process in their clinics. Recommendations made in the present study may assist in allowing veterinary professionals to enhance their ability to support pet owners which can, in turn, lead to improved satisfaction and a greater perceived ability to cope with pet loss.

In the present study, the population was largely female, with no children and a high level of education. While these demographics are consistent with populations of other research
exploring companion animal euthanasia (Fernandez-Mehler et al., 2001), caution should be considered when generalizing findings to all pet owners. Furthermore, the data is self-reported and based on recollections of past experiences up to 10 years prior which can contribute to potential recall bias. The use of random-effects in the multivariable regression model assisted in minimizing the effects of recall bias, however, statistical methods has its own limitations including its usefulness and adequacy to describe and model such a complex experience as companion animal euthanasia. Thus, limitations may also exist in the models’ ability to fully encompass all of the subtleties of pet owners’ euthanasia experiences, satisfaction and grief.

**Practical Recommendations**

Based on the findings of the present study, several important practices recommendations are made. Veterinary professionals are encouraged to reflect on each of these recommendations and decide for themselves their utility and feasibility given their own skills, comfort, existing practices, clinical setting and perceived client expectations.

- Collaboratively create standard operating procedures around companion animal euthanasia and end of life care. Protocols should incorporate ideal standards of practice for administration practices, emotional support, follow-up care and care of the companion animal’s remains. Ideally, discussions and decisions involving procedures should involve all members of the medical team.

- Take the time to explore pet owners’ previous euthanasia experiences, expectations related to companion animal end-of-life care and euthanasia, explore their social support network and emotions.
• Support pet owners by providing reassurance around their decision to euthanize, and the support they will receive from the clinic; provide time alone to grieve, and if appropriate, offer and display sympathy.

• Provide owners access to grief resources and services. These resources should be on open display or always provided to owners so they can self-select the use of resources.

• Always consider sending a condolence card and consider following-up with clients through telephone following companion animal euthanasia.

• Inform owners that they are free to contact the clinic or veterinarian at any time as they navigate the end-of-life care process.

• Offer in-home euthanasia, and if not applicable, provide owners with referral information to another clinic or mobile service which offers in-home euthanasia.

• Provide after-hours services to owners navigating companion animal end-of-life care. If not applicable, provide owners with information to other after-hour or emergency services.

• Recognize that pet owners’ previous euthanasia experiences, the strength of their human-animal bond and the nature of the loss (i.e. traumatic or unexpected) can place owners at a greater risk for more severe grief and respond to the owners’ support needs with appropriate levels of support and resources.
References


31. Maguire P. Key communication skills and how to acquire them. *BMJ* 2002;325:697–700.

32. DiMatteo M. The role of the physician in the emerging health care environment. *The Western*
Journal of Medicine 1998;168:328–333


### Table 6.1 Participant and companion animal-related descriptive statistics as reported by questionnaire participants (n=2354).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency (n=2354)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td>#  (%)</td>
</tr>
<tr>
<td>Female</td>
<td>2203 (94)</td>
</tr>
<tr>
<td>Male</td>
<td>120 (5)</td>
</tr>
<tr>
<td>Other</td>
<td>5 (0.2)</td>
</tr>
<tr>
<td>Do not wish to specify</td>
<td>21 (1)</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
</tr>
<tr>
<td>Some highschool</td>
<td>13 (0.6)</td>
</tr>
<tr>
<td>Highschool diploma</td>
<td>134 (6)</td>
</tr>
<tr>
<td>Some college/university</td>
<td>582 (25)</td>
</tr>
<tr>
<td>Trades/vocational training</td>
<td>210 (9)</td>
</tr>
<tr>
<td>Bachelor/associate degree</td>
<td>797 (34)</td>
</tr>
<tr>
<td>Post-grad/professional degree</td>
<td>558 (24)</td>
</tr>
<tr>
<td>Do not wish to specify</td>
<td>54 (2)</td>
</tr>
<tr>
<td><strong>Relationship</strong></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>529 (23)</td>
</tr>
<tr>
<td>Married/Domestic Partnership</td>
<td>1531 (65)</td>
</tr>
<tr>
<td>Divorced/Widow</td>
<td>150 (6)</td>
</tr>
<tr>
<td>Do not wish to specify</td>
<td>140 (6)</td>
</tr>
<tr>
<td><strong>Children</strong></td>
<td></td>
</tr>
<tr>
<td>No children</td>
<td>1384 (59)</td>
</tr>
<tr>
<td>1 child</td>
<td>308 (13)</td>
</tr>
<tr>
<td>2 children</td>
<td>408 (17)</td>
</tr>
<tr>
<td>3+ children</td>
<td>186 (8)</td>
</tr>
<tr>
<td>Do not wish to specify</td>
<td>58 (3)</td>
</tr>
<tr>
<td><strong>Type of bond with companion animal</strong></td>
<td></td>
</tr>
<tr>
<td>Family member</td>
<td>1831 (78)</td>
</tr>
<tr>
<td>Companion</td>
<td>341 (15)</td>
</tr>
<tr>
<td>Pet</td>
<td>134 (7)</td>
</tr>
<tr>
<td><strong>Type of companion animal</strong></td>
<td></td>
</tr>
<tr>
<td>Dog</td>
<td>1591 (68)</td>
</tr>
<tr>
<td>Cat</td>
<td>754 (32)</td>
</tr>
<tr>
<td><strong>Number of previous euthanasia experiences</strong></td>
<td></td>
</tr>
<tr>
<td>This is the first one</td>
<td>354 (15)</td>
</tr>
<tr>
<td>1 previous</td>
<td>299 (13)</td>
</tr>
<tr>
<td>2 previous</td>
<td>390 (17)</td>
</tr>
<tr>
<td>3 or more previous</td>
<td>1302 (55)</td>
</tr>
<tr>
<td><strong>Location of Euthanasia</strong></td>
<td></td>
</tr>
<tr>
<td>Veterinary clinic – exam room</td>
<td>1161 (49)</td>
</tr>
<tr>
<td>Veterinary clinic – euthanasia room</td>
<td>418 (18)</td>
</tr>
<tr>
<td>In-home – regular veterinarian</td>
<td>218 (9)</td>
</tr>
<tr>
<td>In-home – mobile veterinarian</td>
<td>169 (7)</td>
</tr>
<tr>
<td>Emergency clinic – exam room</td>
<td>124 (5)</td>
</tr>
<tr>
<td>Emergency clinic – euthanasia room</td>
<td>106 (5)</td>
</tr>
<tr>
<td>Do not wish to specify</td>
<td>157 (7)</td>
</tr>
</tbody>
</table>
Table 6.2 Descriptive statistics reporting whether participants (n=2354) recalled their veterinarian used the following support practices during companion animal euthanasia, and the ranked importance of each support practice (ranked from 1 to 10, with 1 being the most important).

<table>
<thead>
<tr>
<th>Support Practice</th>
<th>Used by veterinarian (%)</th>
<th>Ranked importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reassurance (e.g. “You did the right thing”)</td>
<td>59</td>
<td>1</td>
</tr>
<tr>
<td>Provided time alone</td>
<td>72</td>
<td>2</td>
</tr>
<tr>
<td>Sympathy (e.g. “I am sorry”)</td>
<td>89</td>
<td>3</td>
</tr>
<tr>
<td>Veterinarian listened</td>
<td>54</td>
<td>4</td>
</tr>
<tr>
<td>Empathy (e.g. “I can see this is difficult”)</td>
<td>72</td>
<td>5</td>
</tr>
<tr>
<td>Veterinarian shares own emotions (e.g. cried with client)</td>
<td>41</td>
<td>6</td>
</tr>
<tr>
<td>Provided physical contact (e.g. a hug)</td>
<td>42</td>
<td>7</td>
</tr>
<tr>
<td>Normalize emotions (e.g. “It’s normal to feel this way”)</td>
<td>56</td>
<td>8</td>
</tr>
<tr>
<td>Veterinarian remained present</td>
<td>19</td>
<td>9</td>
</tr>
<tr>
<td>Veterinarian remained silent</td>
<td>19</td>
<td>10</td>
</tr>
<tr>
<td>Statements</td>
<td>% Agree and strongly agree</td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>----------------------------</td>
<td></td>
</tr>
<tr>
<td>1. I would like it if I could contact my veterinarian with any concerns or questions about my pet's health leading up to the euthanasia</td>
<td>81</td>
<td></td>
</tr>
<tr>
<td>2. I wish more veterinary clinics performed euthanasia in people's homes</td>
<td>76</td>
<td></td>
</tr>
<tr>
<td>3. I wish there was better access to after-hour services for euthanasia (e.g. on-call veterinarian)</td>
<td>64</td>
<td></td>
</tr>
<tr>
<td>4. I would appreciate veterinary professionals making more of an effort to acknowledge the effects of pet loss</td>
<td>58</td>
<td></td>
</tr>
<tr>
<td>5. I wish veterinary professionals received better training to assist grieving individuals</td>
<td>56</td>
<td></td>
</tr>
<tr>
<td>6. I would like it if the veterinary staff in my clinic asked me about my expectations/needs related to companion animal euthanasia</td>
<td>56</td>
<td></td>
</tr>
<tr>
<td>7. I would appreciate it if veterinary professionals provided more information/resources on grief and bereavement</td>
<td>52</td>
<td></td>
</tr>
<tr>
<td>8. I would like it if veterinarians would discuss euthanasia earlier so we can develop a future euthanasia plan</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td>9. I would like it if the veterinary staff in my clinic asked about my emotions/feeling around euthanasia</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>10. I would like it if my veterinary clinic had a social worker/grief counsellor on staff</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>11. I would like it if I could contact my veterinarian with any concerns or questions about my health (e.g. emotional health)</td>
<td>21</td>
<td></td>
</tr>
</tbody>
</table>
Table 6.4 Results of multivariable linear regression reduced model* assessing associations between pet owners’ (N=2354) experiences and perceptions of companion animal euthanasia and their overall satisfaction following companion animal euthanasia.

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Coefficient</th>
<th>95% CI</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration practices</td>
<td>1.24</td>
<td>0.53, 1.95</td>
<td>0.001</td>
</tr>
<tr>
<td>Emotional support</td>
<td>10.20</td>
<td>9.33, 11.07</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Follow-up care</td>
<td>5.02</td>
<td>4.23, 5.82</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Care of remains</td>
<td>1.98</td>
<td>1.13, 2.84</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

95% CI – 95% confidence interval

*Multivariable model includes random intercepts for year since euthanasia.
Table 6.5 Participants’ (n=2354) average agreeance (0=strongly disagree; 1=disagree; 2=agree; 3=strongly agree) with 7 question items assessing participants’ grief symptoms adapted from the Pet Bereavement Questionnaire and a resulting measure of participants’ total average grief following companion animal euthanasia.

<table>
<thead>
<tr>
<th>Questions</th>
<th>Mean agreeance (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I was very upset about my pet’s death</td>
<td>2.7 (0.6)</td>
</tr>
<tr>
<td>2. My life felt empty without my pet</td>
<td>2.3 (0.8)</td>
</tr>
<tr>
<td>3. I felt lonely without my pet</td>
<td>2.4 (0.7)</td>
</tr>
<tr>
<td>4. I missed my pet enormously</td>
<td>2.7 (0.6)</td>
</tr>
<tr>
<td>5. I cried when I think about my pet</td>
<td>2.7 (0.6)</td>
</tr>
<tr>
<td>6. I was very sad about the death of my pet</td>
<td>2.8 (0.5)</td>
</tr>
<tr>
<td>7. I’ll never get over the loss of my pet</td>
<td>1.8 (1.0)</td>
</tr>
<tr>
<td>Mean grief sum</td>
<td>17.5 (3.8)</td>
</tr>
</tbody>
</table>
### Table 6.6 Results of multivariable linear regression reduced model** assessing associations between pet owners’ (n=2354) experiences and perceptions of companion animal euthanasia and their grief. Questionnaire following companion animal euthanasia measured using an adaption of the Pet Bereavement.

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Coefficient</th>
<th>95% CI</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of previous euthanasias</td>
<td>-0.29</td>
<td>-0.43, -0.15</td>
<td>&lt;0.001*</td>
</tr>
<tr>
<td>Type of human-animal bond</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[Referent = family member]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Companion</td>
<td>-1.18</td>
<td>-1.63, -0.73</td>
<td>&lt;0.001*</td>
</tr>
<tr>
<td>Pet</td>
<td>-3.55</td>
<td>-4.16, -2.94</td>
<td>&lt;0.001*</td>
</tr>
<tr>
<td>Location of euthanasia</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[Referent = vet. clinic - exam room]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vet. clinic – euthanasia room</td>
<td>-0.01</td>
<td>-0.42, 0.42</td>
<td>0.999</td>
</tr>
<tr>
<td>In-home – reg. vet.</td>
<td>0.45</td>
<td>-0.09, 0.99</td>
<td>0.105</td>
</tr>
<tr>
<td>In-home – mobile vet.</td>
<td>-0.12</td>
<td>-0.72, 0.49</td>
<td>0.707</td>
</tr>
<tr>
<td>Emerg. – exam room</td>
<td>0.94</td>
<td>0.25, 1.63</td>
<td>0.008*</td>
</tr>
<tr>
<td>Emerg. – euthanasia room</td>
<td>0.99</td>
<td>0.24, 1.75</td>
<td>0.010*</td>
</tr>
<tr>
<td>Emotional support</td>
<td>-0.12</td>
<td>-0.19, -0.05</td>
<td>0.001*</td>
</tr>
</tbody>
</table>

95% CI – 95% confidence interval
* Indicates significant (p<0.05) associations
**Multivariable model includes random intercepts for year since euthanasia.
CHAPTER 7: OVERVIEW, IMPLICATIONS, LIMITATIONS AND FUTURE DIRECTIONS
7.1 Overview of Findings

This research consisted of two interconnected studies that explored the experiences, perceptions and expectations of veterinary professionals and pet owners as they navigate companion animal end-of-life care and euthanasia. The first study, consisting of focus groups with veterinary professionals addressed three main objectives. The first objective was to gain an in-depth understanding of how veterinary professionals currently manage the supportive needs of bereaved pet owners. The second objective was to better understand how the process of euthanasia impacts veterinary professionals’ sense of wellbeing. Based on these findings, a subsequent questionnaire was developed to address a third objective to determine Ontario veterinarians’ use of bond-centered care practices during companion animal euthanasia. The questionnaire also assessed veterinarians' empathy, years in practice, and the amount of time they allotted for euthanasia appointments. Questionnaire data were analyzed to determine how veterinarians’ empathy level, years in practice and available time were associated with their use of bond-centered practices. A similar approach was used in study two, in which the findings from study one and results from focus groups with pet owners were used to inform the development of a questionnaire to explore pet owners’ euthanasia experiences, perceptions, and expectations, and the impact their euthanasia experience had on their resulting satisfaction and grief following companion animal loss.

There were three main outcomes from this research. The first is that while veterinary professionals are presently practicing many aspects of companion animal euthanasia from a bond-centered perspective, there were also key bond-centered care practices being underutilized. Underutilized practices included exploring the experiences, expectations and emotions of pet owners and utilizing grief-related resources and services. The second outcome was that
veterinary professionals can experience a reduced sense of wellbeing when navigating challenging euthanasia decision-making consultations, specifically when they felt the companion animal’s euthanasia did not meet their ideals of a “good death.” Thirdly, outcomes showed that pet owners’ overall satisfaction with their euthanasia experience was impacted by their satisfaction with the practices used by their veterinarians. Moreover, their grief following companion animal euthanasia was found to be associated with their previous experiences, the human-animal bond and if the euthanasia was performed in an emergency clinic (which was assumed to be related to the euthanasia most likely being emergent or sudden). Based on the findings from the present research and in light of previous research, the clinical and educational implications are discussed including, limitations, recommendations for future research and a summary of key recommendations.

7.1.1 Importance of emotional support

Consistent with previous research (Adams et al., 1999; Martin et al., 2004; Rémillard et al., 2017), the importance of emotional support was represented throughout this research. From the perspective of the sample of veterinary professionals, providing emotional support was one of their most important perceived responsibilities, and they reported offering support through a variety of ways. The most important form of support from veterinary professionals’ perspective was to ensure that the companion animal was provided a ‘good death.’ Since this is the main objective of companion animal euthanasia, it would make sense that this would be veterinary professionals’ central goal; in this way, the medical needs of the companion animal and the emotional needs of the pet owner coincide. From pet owners’ perspectives, the most important emotional support, beyond a peaceful passing for their companion animal, was to receive reassurance that they were doing the right thing, to have time alone and to receive sympathy.
from their veterinary professionals. While most pet owners reported that they received sympathy and time alone, much less reported receiving reassurance.

Based on findings of Chapter 6, if pet owners were more satisfied with the emotional support they received, the greater overall satisfaction and less grief they reported experiencing following companion animal euthanasia. Based on these findings, by not receiving reassurance or having their supportive needs met, veterinary professionals may be missing important opportunities to enhance pet owners’ satisfaction and also assist in alleviating their grief. Therefore, veterinary professionals are encouraged to ensure that they are considering and meeting the supportive needs of pet owners, and are consistently providing reassurance, sympathy and time alone.

However, given that each pet owner and their experience is unique it is likely that there is no one-size fits all approach to providing emotional support. For this reason, it is also important to reflect on each pet owners’ situation and provide tailored care to meet their needs and expectations. Based on the findings of the present research (Chapter 5), in which we explored veterinarians' use of bond-centered practices, this is likely the approach that many veterinary professionals are already taking. Veterinary participants reported using the majority of the bond-centered support practices on an often or sometimes basis which suggests flexibility and adaptability. In this way, veterinary professionals are likely using certain practices (i.e. sympathy & empathy) more consistently, while using other support practice (e.g. physical contact, and normalization) as needed and in response to the needs of each euthanasia situation.

7.1.2 Importance of exploring pet owners’ experiences, expectations and emotions

Exploring the expectations, experiences and emotions of pet owners is an important component of bond-centered care, as bond-centered care is not only about respecting the human-
animal bond and providing emotional support but doing it in a manner that reflects the individuality of each pet owner and their companion animal (Lagoni & Butler, 1994; Lagoni & Shanan, 2017; Ormerod, 2008). Findings presented in Chapters 3, 5 and 6 suggest that veterinarians are not consistently exploring the experiences, expectations and emotions of pet owners during companion animal euthanasia, and that pet owners would like their veterinarians to explore these topics more often. By not consistently exploring these aspects of the pet owner’s experience, veterinary professionals are missing opportunities to tailor their care to the individual needs of each pet owner and their companion animal, and enhance their satisfaction and potentially, perceived ability to cope with pet loss.

Much of the veterinary communication literature advocates for veterinary professionals to explore the expectations of pet owners in the context of euthanasia (Cohen & Sawyer, 1991; Lagoni & Butler, 1994; Shaw & Lagoni, 2007). Research suggest that exploring and integrating pet owners’ expectations early can assist in achieving consensus, understanding and prevent future conflicts or complaints during emotionally-heavy discussions (Nogueira Borden et al., 2010), as well as allow owners to feel more informed and involved in the process and improved their satisfaction (Adams et al., 1999). Based on these findings and those of the present research, veterinary professionals should explore pet owners’ expectations early and consistently and tailor their practices based on these expectations.

The present research and existing research demonstrate the importance of exploring pet owners’ previous experiences and other factors shown to be associated the severity of a pet owners’ grief. In the present research, these variables included if the owner had previously experienced euthanasia, the strength of the human-animal bond, if the euthanasia was emergent or sudden and if pet owners were satisfied with the support they received from their veterinarian.
Exploring these variables can provide important contextual information when considering the supportive needs of pet owners. Previous research also recommends considering the demographics of participants (i.e. gender and age), if the owner lives alone (Gosse & Barnes, 1994; Archer & Winchester, 1994), and the extent of their support network (Gosse & Barnes, 1994). By exploring these factors and experiences, veterinary professionals can make a more informed decisions around the supportive needs of an individual pet owners.

Furthermore, by taking the time to directly observe and explore pet owners’ feelings and emotions during companion animal euthanasia, veterinary professionals have an important opportunity to formally discuss, discover and understand the unique relationship that exists between pet owners and their companion animal that are important to understand when considering the emotional support that a pet owner may need or benefit from. For many veterinary professionals, it may be awkward or difficult to discuss the emotional experience of pet owners (Tinga et al., 2001), however, by initiating these conversation, veterinary professionals also have an opportunity to collect information about a pet owner’s existing support network, their expectations for emotional support, and if they would appreciate access to grief-related resources and services.

7.1.2.1 Communication practices to enhance veterinary professionals ability to explore pet owners’ experiences, expectations and emotions

The importance of effective communication and its relationship with key health outcomes has been well document over decades of research (Adams & Kurtz, 2017). How veterinary professionals communicate with pet owners can have important impacts on clinical outcomes including adherence, the veterinary-client relationship, and veterinary professionals and pet owner satisfaction (Buckman, 1992; Rosenbaum, Ferguson & Lobas, 2004; Shaw & Lagoni,
When done well, communication during companion animal end-of-life care and euthanasia has the potential to support pet owners emotionally, allow them to feel heard and understood and validate their decision to select euthanasia (Lagoni & Shaw, 2007; Kurt, 2006). Inadequate communication, however, can leave pet owners feeling unheard, unsupported and lead to more deleterious human health outcomes (Rémillard et al., 2017; Buckman, 1992; Rosenbaum, Ferguson & Lobas, 2004).

To promote effective communication with pet owners during companion animal end-of-life care, experts (Shaw & Lagoni, 2007) recommend the use of the SPIKE six-step approach (Main et al., 2010; Kurtz et al., 2017). The SPIKES six-step model (Setting, Perception, Invitation, Knowledge, Empathize, and Summary and Strategy) was developed by Buckman (1992), and in human medical education has been shown to be effective at improving communication skills (Garg, Buckman, & Kason, 1997). In the context of the present research, SPIKES provides a formal methods of communication which can be used to enhance veterinary professionals’ exploration of pet owners’ experiences, expectations and emotions, and their ability to communicate in a bond-centered manner. The SPIKES model does not have to be conducted in a linear fashion, as there is no specific order other than starting with the setting and finishing with summary and strategy.

- **Setting:** Establish a setting that provides privacy, comfort, reduces distractions and allows time for discussion. At this time rapport should be established through the use of open-ended questions and empathy statements.
- **Perception:** Owners’ and their companion animals’ perceptions, needs and expectations should be explored using open-ended questions. For example owners’ perceptions of their
companion animals’ illness; end-of-life care and euthanasia; previous experiences with euthanasia; religious or spiritual beliefs should be assessed.

- **Invitation:** Ask for permission to share information and discuss euthanasia and euthanasia decision making.

- **Knowledge:** After the invitation, provide information in stages. Ask for permission to share additional information. Assess the owner’s understanding periodically. Provide accurate information about the animals’ condition, way of monitoring quality-of-life, and ways of recognizing the appropriate time for euthanasia, including how to contact the clinic with concerns or desire to book an appointment.

- **Empathize:** Throughout each stage, owners’ feelings and emotions should be acknowledged, validated and normalized. Verbal and non-verbal empathy should be demonstrated. The use of reassurance, sympathy and providing time alone are also important.

- **Summary and Strategy:** Summarize what was discussed and negotiate an agreed-upon plan. Identify the owners’ support system and provide access to grief services and professionals.

The use of another communication model known as the Emotional SOAP model can also be used by veterinary professionals to assess pet owners’ feelings and emotions during companion animal euthanasia (Lagoni & Shanan, 2017). As described by Lagoni and Shanan (2017), the first step is for veterinary professionals to reflect on their subjective (S) impression and intuition regarding the pet owner. This is followed by the second step of considering the objective (O) information provided by the pet owner. Next, veterinary professionals are
encouraged to assess (A) and compare their subjective and objective information and make a support plan (P), which is tailored to the owner’s needs. Support plans can range from support from the veterinarian to seeking out a professional counsellor, offering follow-up care or grief-related resources (e.g. brochures, websites).

7.1.3 Characteristics associated with veterinarians’ use of bond-centered care

Based on the findings reported in Chapter 5, certain characteristics may have the ability to influence, enhance or conversely, diminish veterinarians’ ability to practice bond-centered care. These characteristics included veterinarians’ empathy, the number of years they had been practicing veterinary medicine and the amount of time scheduled for euthanasia appointments. Promoting the use of these characteristics, where possible, may have the potential to enhance veterinarians’ current use of bond-centered care.

To enhance veterinarians’ utilization of bond-centered care, three strategies may be effective. Firstly, to enhance veterinary professionals’ ability to understand, utilize and demonstrate empathy, focused end-of-life communication training may be effective. Such training has previously been shown to improve healthcare providers’ capacity to demonstrate empathetic communication and care (Kramer et al., 1989; Winefield & Chur-Hansen, 2000; Meehan & Menniti, 2014). Focused training in veterinary school can also help to enhance the amount of experience veterinarians’ have performing companion animal euthanasia and supporting pet owners. Hands on practice of performing companion animal euthanasia and simulated interactions with pet owners may be useful methods to enhance veterinarians’ confidence and competence. Lastly, once in the workplace ensuring that enough time is provided for euthanasia appointments may also be effective as it can provide veterinarians with the time to foster deeper relationships with pet owners, acknowledge and appreciate the bond they share.
with their pet and therefore practice bond-centered care. Ideally, all three interventions are
needed, since without the necessary skills and training needed to practice bond-centered care,
having more time dedicated to appointments might not necessitate veterinarians’ use of bond-
centered practices. Veterinary professionals must first have the skills to meaningfully and fully
employ bond-centered care during companion animal euthanasia.

7.1.4 Training on navigating euthanasia decision-making

Findings of Chapter 4 highlighted the impacts that euthanasia decision-making can have
on veterinary professionals. Veterinary professionals reported feeling that they often struggle to
navigate euthanasia decision-making discussions, particularly when these discussions were
prolonged or complicated. They also felt that navigating challenging euthanasia discussions had
a greater impact on their sense of wellbeing when compared to performing euthanasia itself.
These findings suggest that additional training of veterinary professionals on ways of selfcare
related to euthanasia and end-of-life care discussions is important.

Conducting euthanasia discussions is an important aspect of veterinarians’
responsibilities (Lagoni et al., 1994). These discussions require clear communication, empathy,
exploration of pet owners’ beliefs and preferences, an understanding of the companion animals’
medical condition and associated needs, and a mutual agreement between veterinary
professionals and the owner on the next steps in end-of-life care (Shanan, 2011; Shaw & Lagoni,
2007). Conducting these conversations, however, can be challenging for many veterinary
professionals (Shanan, 2011), and training around companion animal end-of-life care is still an
area of growth in the veterinary profession (Dickinson & Paul, 2014; Dickinson et al., 2011).

Without adequate training, veterinary professionals may continue to struggle navigating
euthanasia-decision making discussions, which, based on findings of the present and previous
research (Buckman, 1992; Rosenbaum et al., 2004), can lead to a reduced sense of provider wellbeing, negative impacts on the veterinary-owner relationship and negatively impact the owner. With effective training veterinary professionals can help pet owners make a difficult decision, ensure their concerns are heard, acknowledged and managed, and support their emotions (Shaw & Lagoni, 2007).

Based on the finding of the present research and that of expert recommendations (Shanan, 2011; Shaw & Lagoni, 2007), the skills that veterinary professionals should receive training on related to euthanasia decision-making include:

- Delivering bad news
- Monitoring and assessing the companion animals and the owner’s quality-of-life
- Navigating and communicating about euthanasia decision-making
- Providing information on how the euthanasia procedure will be conducted
- Providing grief resources, education, support and access to professionals, as needed

7.1.5 Importance of grief-related resources, services and professionals

Based on the findings in Chapter 3, it is clear that veterinary professionals value their role as an emotional supporter and go to great lengths to incorporate physical and emotional modalities of support but, also recognize that their role as an emotional supporter is limited. Experts suggest that veterinary professionals can listen, acknowledge, validate and normalize the emotional experience of pet owners which, for the majority of the population, is enough (Lagoni et al., 1994). However, some pet owners may also benefit from professional support (Adams et al., 1999; Rémillard et al., 2017).

Based on findings from the present research, there is a clear need and opportunity for grief-related resources, services and professionals within the veterinary profession. The
integration of counselling professionals may be a practical solution to meet the complex needs of both veterinary professionals and pet owners. Professionals trained in counselling skills can assist veterinary professionals and pet owners in a variety of ways such as:

- Conducting or assisting during end-of-life decisions
- Assessing the emotional state of pet owners and providing tailored support
- Exploring pet owners’ experiences, expectations and emotions
- Assessing and intervening in crises
- Facilitating support groups
- Conducting and providing follow-up care
- Educating veterinary staff on emotional support, empathetic communication and bond-centered care
- Debriefing with veterinary staff

Some veterinary clinics have already begun to work closely with counselling professionals to extend support beyond the confines of the veterinary clinics (Wynn & Shanan, 2017).

Combining the care and knowledge of veterinary professionals and counselling professionals may also assist by normalizing and challenging the lack of societal acknowledgement around the impacts of companion animal loss (Laing & Maylea, 2018).

However, not all individuals may wish to self-disclose to professionals or others and may instead benefit from written material or websites (Gysels, Higginson, Rajasekaran, et al., 2004). Experts suggest that grief resources should be provided and be accessible to all individuals, allowing pet owners to decide for themselves if they wish to accept or use these resources (Hewson, 2015b, 2015a; Gysels, et al., 2004). They can be on display and accessible in the clinic.
waiting room, exam rooms, accessible via the clinic’s website, or providing with follow-up care such as condolence cards or a take-home bag.

7.2 Discussion and Management Of Limitations

As with all research, the present research is not without limitations. Limitations discussed in the present section include those inherent in qualitative research, questionnaire design, in the collection of self-reported data, and in the internet as a participant recruitment tool.

7.2.1 Qualitative research

The qualitative methodology used in this research included a small sample size which is inherent in most qualitative research, limiting generalizability. Steps were taken to attempt to collect a breadth of perspectives including collecting data until a point of saturation was reached. For example, purposively selecting veterinary clinics with different end-of-life care practices and including the perspectives of all veterinary staff members (i.e. veterinarians, veterinary technicians, receptionists, assistants and client care specialists). Caution should still be considered when attempting to generalize these findings (Chapters 3 and 4) to all veterinary professionals, especially those from different cultural backgrounds and training backgrounds.

7.2.2 Quantitative research and questionnaire design

A limitation of the quantitative research conducted in the present research includes the ability for statistical methodologies to adequately represent and describe complex social and emotional phenomenon such as companion animal euthanasia and end-of-life care. For example, in Chapters 5 the R² values were lower, suggesting that not all the variation was explained by the statistical models. It is likely that there are other variables not explored in the present research which may impact the extent to which veterinary professionals use bond-centered communication and support practices (Chapter 5) and influence pet owners’ overall satisfaction
and grief (Chapter 6). Particularly given the small ORs reported in the models in Chapter 5 (assessing veterinarians’ use of bond-centered practices), there are likely other and perhaps more influential factors not included in the present research. Future research is encouraged to explore how other factors, for example the context of the euthanasia (e.g. emergent, expected, disease), or other personal factors related to the veterinarian (e.g. their self-perceived confidence, attitudes towards euthanasia) might impact veterinarians’ practices and pet owners’ experiences with companion animal euthanasia. While these limitations exist in the present research, pairing of the quantitative research with the initial stage of qualitative research assisted in providing a detailed and in-depth account of participants’ experiences, which go beyond statistical representation.

The use of qualitative data to inform question development and pre-testing of questions assisted in minimizing limitations associated with the design of the questionnaires. Conducting a prior qualitative phase contributed to a deeper understanding of the topics and assisted in informing the content of the questionnaire. Pre-testing ensured proper interpretation of the question items and was also used to refine the survey length and reduce the chance for responder fatigue.

Both questionnaires used to collect data in Studies 1 and 2 used pre-validated scales to assess veterinary professionals’ empathy (Chapter 5) and pet owners’ grief following companion animal euthanasia (Chapter 6).

In Chapter 5, The Jefferson Empathy Scale was used. The JSE has been widely used in human literature to measure empathy in medical professionals (Hojat et al., 2018, 2001). In the present research, the scale was adapted for veterinary use, JSE-V (Hojat et al., 2001). A potential limitation of the veterinary version is that there are currently no studies that have used this version and, therefore, comparisons to veterinary professionals cannot be made. Compared to
human medical professionals, however, empathy scores were similar. For example, medical students reported an average empathy score of 118, medical residents, a score of 118, and US students, a score of 111 (Hojat et al., 2001). Furthermore, the internal consistency when calculated for the context of the present research proved reliable as well (α=0.82) suggesting that the JSE-V scale was a reliable measure of empathy.

In Chapter 6, the Pet Bereavement Questionnaire was used. The PBQ was adapted for the current study and only measures grief. The use of the full Pet Bereavement Questionnaire has been shown to have good internal consistency in human research (α=0.85-0.87) (Eckerd et al., 2016), in veterinary research (α=0.87) (Hunt & Padilla, 2006) and the grief portion of the questionnaire used in the present research also proved good internal consistency (α=0.88). A recent study evaluating the grief of 369 Italian dog owners who had recently lost their dog reported an average grief score of 14.84 (SD=4.66) and an alpha score of 0.85 for the grief portion of the PBQ (Uccheddu, De Cataldo, Albertini et al., 2019). Another study exploring the disenfranchised grief and its relationship to post-traumatic growth among 113 pet owners reported an average grief score of 3.06 (scored from 0 to 4) or a 16 when converted to a cumulative score (Spain, O’Dwyer & Moston, 2019). Thus, although this research only used one section of the Pet Bereavement Questionnaire, the Cronbach alpha value suggests that it reliably measured pet owners’ grief and when compared to the two recent studies, the average grief scores are comparable. Future research may wish to incorporate the other sections to add additional information on pet owners' emotional experience following companion animal euthanasia. They were not included in the present research to minimize the number of question items and the potential for responder fatigue.
7.2.3 Sources of Bias

*Self-selection bias*

In the present research, all participants self-selected to participate. Self-selection bias can occur when participants who select to participate in a study vary from those who do not. In the present research, the possibility of selection-bias was demonstrated in the veterinary study population which consistently had a higher proportion of female to male study participants beyond that in the sample population. However, upon the comparison of other attributes of the research population, characteristics such as age were similar to the wider veterinary population, suggesting that the study populations were represented in other ways. Furthermore, in the pet owner study population, participants were mostly female, had no children and were university educated introducing possible bias. The reason for a higher proportion of female participants can be explained by previous research which found that females are more interest in human-animal bond-related topics and are, therefore, more inclined to participate in human-animal bond research (Dillman, Christian, & Smyth, 2014; Martin, Ruby, & Farnum, 2003). Furthermore, previous research describing owners’ expectations of euthanasia had a similar participant population distribution (Fernandez-Mehler et al., 2003). The impacts of self-selection bias include limitations on the generalizability of findings to all pet owners.

Certain recruitment methods may help to achieve a higher proportion of male participants in future research. For example, studies which recruited pet owner participants through veterinary clinics (Adams et al., 2000; Martin et al., 2004) or at veterinary clinics (Fernandez-Mehler et al., 2013) reported that male respondents made up approximately 30% of their study population. Alternatively, research (Ryan et al., 2019) which sought to recruit more male participants to health behaviour research found that certain forms of advertisement, specifically
those with vibrant images of men exercising accompanied by concise captions (<35 words) were most effective. Additionally, that same research also found that by asking female participants to invite male participants (snowball recruitment), male participation increased from 18% to 29%. Therefore, keeping in mind the design and imagery of future recruitment advertisements may be helpful, in addition to the use of snowball recruitment methodology. The potential for bias in the use of these methods should, however, also be considered, as snowball methodology is a non-purposive recruitment approach and can introduce bias (Baltar & Brunet, 2012).

**Response bias**

Each of the studies in the present research involved the collection of self-reported data. In Chapters 3 and 4, these included verbal accounts of veterinary participants’ experiences and perspectives, and in Chapters 5 and 6, these included veterinary professionals and pet owner participants’ responses to online questionnaires. Because the data was self-reported, responses may not be fully objective. Response bias may have occurred if participants responded in socially desirable ways during the focus groups, as well as extreme responding and ‘yay-saying’ in the questionnaires. To minimize the potential for bias, participants were informed that all responses would remain confidential and to respond openly, furthermore, data was assessed for extreme responding or ‘yay-saying’ during data cleaning.

**Recall bias**

For the online questionnaires, pet owners and veterinary professionals were asked to recall their experiences and practices related to companion animal euthanasia. For pet owners, the length of time since they experienced companion euthanasia varied, ranging from just hours prior to responding to the questionnaire, up to 10 years. The potential for recall bias increases as more time passes and participants may not be able to accurately recall the details of their
experience (Kensinger, 2009). To account for the differences in the accuracy of participants' memory, a random intercept model was used with time since euthanasia integrated as a random effect.

**Internet recruitment**

Internet recruitment was used for the qualitative and quantitative research included in this thesis (Chapters 5 and 6). While convenient, the use of the internet to recruit participants has its limitations and potential for bias. One of these limitations is the fact that not everyone has reliable internet access or social media accounts which were used to propagate advertisement of the present research. Moreover, previous research has found that participants who are more likely to be recruited via the internet are often younger, more educated and more motivated, which can lead to sampling bias (Etter & Perneger, 2001). However, upon assessment of veterinary participants’ demographics, participants represented a range of age groups and levels of education, suggesting that this bias was likely minimal. Specifically, compared to other research related to companion animal euthanasia and the human-animal bond, the pet owner population in this research were similar in age, education, relationship status and proportion of participants with and without children (Martin et al., 2004; Fernandez-Mehler et al., 2013).

**7.3 Future Directions**

The present research provides a foundational understanding of the current practices and perceptions of veterinary professionals and pet owners during companion animal end-of-life care and euthanasia. Future research may wish to further expand on these findings; a number of future research considerations are provided below.
7.3.1 Video analysis of veterinary end-of-life care and euthanasia interactions

The video recording and analyses of companion animal end-of-life care and euthanasia appointments would allow researchers to gain a more objective understanding of euthanasia interaction. Researchers could objectively observe and analyze veterinary-client communication styles, euthanasia and emotional support practices, and the associated reactions and responses from pet owners and veterinary professionals.

While the recording of these interactions may be potentially seen as insensitive or intrusive by pet owners and the veterinary professionals performing them, there is a strong need for more empirically-derived research which further explores the practices, protocols and impacts of companion animal euthanasia, and video recording would be less invasive than in-person observations, and provide an objective means of conducting this research. Alternatively, the use of simulated-clients may be a middle ground where euthanasia interactions can be simulated rather than recorded in real-time, and has been successfully used to explore communication during pre-euthanasia discussions (Nogueira Border et al., 2010, 2019). Future research may wish to explore the potential for real and simulated data collection.

The use of video recording may also be complemented by the addition of a pre- and post-euthanasia questionnaire. The questionnaire would allow researchers to collect demographic information, and measures of the pet owners and veterinary professionals’ perceptions, satisfaction and confidence following an appropriate timeframe. A follow-up questionnaire could also be administered to the pet owner(s) after a pre-selected length of time (e.g. 6-12 months) to reassess pet owners’ grief level. Comparisons could then be made between the pet owner's grief levels immediately after euthanasia and after a preselected amount of time, introducing a
temporal component to the analysis and determine correlations rather than associations offered by the cross-sectional nature of the present research.

7.3.2 What constitutes emotional support from a pet owner’s perspective

Given one outcome in the present research was the importance of emotional support and it’s connection with patients satisfaction and grief, the next logical step is to gain a greater understanding of what constitutes emotional support. Veterinary professionals represented in the present research reported using a variety of support practices, some infrastructural, others verbal and non-verbal. Though veterinary professionals may intuitively understand how to provide emotional support, this belief may be based on experiential knowledge and subjective experiences (Tinga et al., 2001; Dickinson et al., 2011; Morris, 2012). Furthermore, while a few of the most important support practices were identified by participants in the Chapter 6 (i.e. reassurance, sympathy and time alone), a deeper understanding of what constitutes emotional support from the pet owner’s perspective can assist in developing a framework that can be applied across veterinary settings. The use of a qualitative methodology such as focus groups or one-on-one interviews is an ideal way to gain a more in-depth understanding of how pet owners’ make meaning of their perceptions of emotional support. The more we understand about a pet owner’s perspectives, the more veterinary professionals can do to respond to owners’ emotional needs.

7.3.3 Research into veterinary curriculum end-of-life care teaching paradigms

There are opportunities for research exploring the current efficacy of teaching modalities around companion animal end-of-life care and euthanasia. Historically, these topics have been taught using lectures or open-discussion and integrated into other courses (Dickinson et al., 2011; Dickinson & Paul, 2014). Some veterinary school have also offered voluntary workshops
developed student-led programs (Bishop, Long, Carlsten, et al., 2008) or offer independent course on end-of-life care topics (Dickinson et al., 2011; Dickinson & Paul, 2014; Goldberg, 2019), however, given that veterinary students and professionals still reported feeling unprepared to manage many aspects of companion animal end-of-life care (Tinga et al., 2001; Dickinson et al., 2011), research into the most effective way of teaching this content is needed.

In one study, the top five euthanasia practices considered important by students included communicating with owners, learning techniques involved in companion animal euthanasia, what can go wrong and how to prevent it, pharmacology and dealing with children (Cohen-Salter et al., 2004). Using this information, a voluntary workshop consisting of three 2-hour blocks were developed and consisted of a series of lectures and panel discussions on the technical and emotional issues related to companion animal euthanasia (Cohen-Salter et al., 2004). As many as seventy-five percent of students were reported to have attended the workshops voluntarily, and students highly rated the workshop relevance, and many thought it should be integrated into the veterinary curriculum. Based on these findings, this model of teaching veterinary students on topics related to companion animal euthanasia and end-of-life care may be valuable, and more research is certainly warranted to explore the impacts such models of teaching can have on the competence and confidence of veterinary students.

7.3.4 Research into the impacts of grief resources and professionals

Many of the recommendations made in the present research highlight the need for the development and incorporation of grief resources and support professionals. Recognition of this need is still growing in the veterinary profession and as a result, research exploring these topics is also just beginning to emerge. More recent research (Laing & Maylea, 2018) and expert
opinions (Lagoni et al., 1994; Wynn & Shanan, 2017) support the need for professional support from trained counsellors such as social workers, and research to understand the role counselling professionals play. Based on the findings of the present research, a population of pet owners have an apparent interest in receiving more access to counselling professionals.

Similar to the design of the studies of the present thesis, qualitative research consisting of focus groups or one-on-one interviews can be utilized to explore the roles of counselling professionals and guide the development of a subsequent phase of quantitative research. Focus groups should consider incorporating the perspectives of veterinary staff, pet owners and professional counsellors. An understanding of the perspectives, experiences and opinions of each stakeholder can be used to guide the development of guidelines to support the integration of professional counsellors within veterinary settings. Future research should also focus on other aspects of companion animal end-of-life care including pre-euthanasia consultations, and hospice and palliative care. Such research would provide valuable insight into growing areas of end-of-life care which are presently under-explored.

7.4 Final Remarks

Companion animal end-of-life care and euthanasia are important topics that impact the lives of veterinary professionals and pet owners daily. While the importance of these topics is well recognized within the veterinary profession, they are rarely the focus of research. The research presented in this thesis contributed to the literature by addressing knowledge gaps on how companion animal euthanasia is presently managed and the impact these practices have on both veterinary professionals and pet owners. However, there is still much more work that needs to be done. I hope that the research presented here will initiate and support future research into the areas of companion animal euthanasia and end-of-life care.
“The littlest feet make the biggest footprints in our heart”

- Unknown
References


Fraley, R. C., & Shaver, P. R. (1999). Loss and bereavement: Attachment theory and recent controversies concerning “grief work” and the nature of detachment. *Handbook of*
Attachment: Theory, Research, and Clinical Applications.


doi:10.1177/1754073908100432


Nogueira Borden, L. J., Adams, C. L., Bonnett, B. N., Shaw, J. R., & Ribble, C. S. (2010). Use of the measure of patient-centered communication to analyze euthanasia discussions in


experience among callers to a pet loss support hotline. *Anthrozoös*, 30(1), 149–161.


*Patient-centered medicine: transforming the clinical method* (2nd ed.). Abingdon, Oxon: Radcliffe Publishing.


APPENDICES

Appendix A: Exploring Veterinary Professionals’ Management of Companion Animal Euthanasia and the Support of Bereaved Pet Owners and the Impact the Process of End-of-Life Care and Euthanasia has on Veterinary Professionals

A1. Phone script for contacting veterinary clinics regarding their interest to participate in group or individual interviews exploring how they manage companion animal euthanasia and the support of bereaved pet owners and the impact the process of end-of-life care and euthanasia has on veterinary professionals.

A2. Managing Veterinary Euthanasia and Client Grief – Group interviews consent form

A3. Managing Veterinary Euthanasia and Client Grief – Individual interviews consent form

A4. Group and individual interview question guide
A1. Phone script for contacting veterinary clinics regarding their interest to participate in group or individual interviews exploring how they manage companion animal euthanasia and the support of bereaved pet owners and the impact the process of end-of-life care and euthanasia has on veterinary professionals.

Managing Veterinary Euthanasia and Client Grief

Phone call script when contacting the owner or manager of the practice/clinic:

Hi, my name is ______________(one of the investigators) from the Ontario Veterinary College. Am I able to speak to the manager of the practice or the practice owner? [If no one available, leave message or ask for a call back time.]

We are conducting research on “Managing Veterinary Euthanasia and Client Grief” and would like to talk to you about the possibility of you and your staff being involved. Do you have 5 minutes so I can tell you about it?

The main purpose of this study is to better understand what is currently happening in veterinary clinics in terms of the euthanasia process and managing client grief before, during and after euthanasia. The information we gather from veterinary team members about euthanasia and client grief will help us achieve a secondary purpose which is to develop a protocol for veterinary clinics about managing euthanasia and client grief.

If your clinic agrees to participate in this study, one member from our research team (i.e. Dr. Deep Khosa, Dr. Lee Niel or Master’s student, Alisha Matte) will travel to your clinic and conduct a semi-structured group or individual interview that should take no more than 1.5 hour of your clinic’s time. The type (individual vs. group) and timing of this interview can occur at whatever time is convenient for your clinic. The interview can occur over the lunch break if that is more convenient than other times. We are offering to provide lunch for all clinic staff regardless of whether they agree to be interviewed. If you and your staff are willing to take part in the interview, we will go ahead with planning a day and time.

If you, as the clinic owner or manager, agree to allow us to interview you and your staff we ask you to ask each individual staff member about whether they would like to take part in the interview and assume that no staff member will feel pressured to attend. We will bring copies of this consent form with us for individual participants to sign on the day of the interview.

During the interview (individual or group), we will take notes to summarise what is being said. We will not record any names or details of the people involved in the interview only the date of the interview. We will also digitally audio record the interview and only use this recording to clarify details in our summary notes. After or during the interview, if for any reason you or any staff member does not want to be involved in the study, tell us and we will remove all clinic data.
from our research in the case of a group interview and just the single interview data, in the case of an individual interview.

Would you be interested in being part of this study and as such ask your staff whether they would like to be involved? (If NO then – Thank you for your time we appreciate it – Goodbye)

(If YES) Thank you. After you have checked with your staff can you contact us at the following email or phone number, dkhosa@uoguelph.ca or 519 824 4120 ext. 54470. We need to organise a time for the interview to occur. Are you able to tell me when would be most convenient? If not, can I call you back after you have talked about it with other team members. Would you and your staff prefer individual interviews or a group interview? I would like to email you a letter of consent that has more information about study. Can you provide me with an email so I can send it to you?

There is no payment for participation however, as stated before we would like to buy lunch for everyone working at the practice on the day of the interview.

Should you have any questions regarding this survey, please contact Dr. Deep Khosa at dkhosa@uoguelph.ca or 519 824 4120 ext. 54470.

Thank you again for your time and I will be in contact with you again to finalize the interview. I will also send you all the information you need via email.

Goodbye.
A2. Managing Veterinary Euthanasia and Client Grief – Group interviews consent form

CONSENT FORM

Managing Veterinary Euthanasia and Client Grief: Groups Interviews

Dear Veterinary Clinic Owner and/or Manager. We are inviting members of your clinic to participate in an important study concerning euthanasia and client grief. The primary researchers for this study are Dr. Deep Khosa and Alisha Matte, and the sponsor for the study is the Pet Trust Fund, Ontario Veterinary College, University of Guelph.

PURPOSE OF THE STUDY

The main purpose of this study is to better understand what is currently happening in veterinary clinics in terms of the euthanasia process and managing client grief before, during and after euthanasia. The information we gather from veterinary team members about euthanasia and client grief will help us achieve a secondary purpose, which is to develop a protocol for veterinary clinics about managing euthanasia and client grief.

PROCEDURES

If your clinic agrees to participate in this study, one member from our research team (i.e. Alisha Matte) will travel to your clinic and conduct a semi-structured group interview that should take no more than 1.5 hour of your clinic’s time. The timing of this interview can occur at whatever time is convenient for your clinic. We are offering to provide lunch for all clinic staff regardless of whether they agree to be interviewed so the interview can occur over the lunch break if that is more convenient than other times, or at the end of your work day.

If you, as the clinic owner or manager, agree to allow us to interview you and your staff we ask you to ask each individual staff member about whether they would like to take part in the interview and assume that no staff member will feel pressured to attend. We will bring copies of this consent form with us for participants to sign. During the group interview, we will take notes to summarise what is being said. We will not record any names or details of the people involved in the interview only the date of the interview. We will also digitally audio record the interview and only use this recording to clarify details in our summary notes. After or during the interview, if for any reason you or any staff member do not want to be involved in the study, tell us and we will remove all clinic data from our research.

By being involved in this study you have the opportunity to receive feedback about the research findings. Please tell us by either emailing dkhosa@uoguelph.ca or phoning (519) 824-4120 ext. 54470 if you would like to be contacted again to receive information about our findings.
POTENTIAL RISKS AND DISCOMFORTS

We are aware that by providing feedback about euthanasia and client grief are topics that may remind you of sad situations. These memories may be emotional for you; we hope that these emotions will not be upsetting. If you do feel upset and want to talk to someone you can contact a crisis hotline at any time Local: (519) 821-0140. Toll-free: 1-877-822-0140 or the Ontario Veterinary College’s Pet Loss Support Hotline on (519) 824-4120 ext.53694. We are here to listen to you and are trained to be emotionally supportive and respectful at all times.

POTENTIAL BENEFITS TO PARTICIPANTS AND/OR TO SOCIETY

We expect that the feedback you provide will greatly benefit the veterinary profession and the clients and animals that visit veterinary clinics requiring euthanasia for their pets. In addition, the field of grief due to pet loss and the human animal bond will also benefit in this knowledge.

PAYMENT FOR PARTICIPATION - COMPENSATION

There is no payment for participation however, we will be offering a pizza lunch for all staff whether they agree to be interviewed or not and we expect the value to be around $50. Please inform us of staff special dietary needs.

CONFIDENTIALITY AND ANONYMITY

In this study anonymity cannot be assured as we are conducting face to face interviews with the researcher who will know your identity. Please be assured that anything you do say will be kept confidential by the research team. Because this research is essentially a public process as you will be speaking in front of others you should not say anything you would not feel comfortable being made public. In addition, we will be advising all participants not to discuss what anyone said in any of the interviews once they leave the group.

However, we will not use any identifiable codes when summarising what is said during the interview. We will only record the date of the interview. Every effort will be made to ensure confidentiality of any identifying information that is obtained in connection with this study. The information you provide will only be accessible by the investigators (Dr. Khosa and Alisha Matte). The primary investigator (Dr. Khosa) will store any written material related to the interview and audiotapes of the interview in a lockable filing cabinet in Dr. Khosa’s office at the Ontario Veterinary College which is securely locked. After the study is complete (approximately 1-2 years after the interview) all written summary notes (data) and digital audio recordings from the interview will be destroyed. Electronic data, including digital audio recordings will be stored securely on a computer in Dr. Khosa’s lockable office.

PARTICIPATION AND WITHDRAWAL

We strongly respect participant’s decision to withdraw their data from the study. However, please be aware that because we do not individually identify any person in the interview it is not possible for us to remove your data from either the summary notes or the recordings when
involved in a group interview. This is because the recorder captures all of the audio, so it is impossible to remove just one speaker. In addition, transcripts are transcribed verbatim and would no longer be interpretable with one or more speaker removed. However, if the clinic owner and or manager deems it necessary to remove all data from their clinic for whatever reason we will respect that decision. You may contact Dr. Khosa (Primary Investigator) on 519 824 4120 ext. 54470 or email dkhosa@uoguelph.ca.

WHO TO CONTACT?

If you have any questions or concerns about the research, please feel free to contact Dr. Deep Khosa (Primary Investigator) on 519 824 4120 ext. 54470 or email dkhosa@uoguelph.ca

RIGHTS OF RESEARCH PARTICIPANTS

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. This study has been reviewed and received ethics clearance through the University of Guelph Research Ethics Board. You have the right to receive feedback about the results from this study via email. If you have questions regarding your rights as a research participant, contact:

If you have questions regarding your rights as a research participant, contact: Sandy Auld, Director, Research Ethics; Telephone: (519) 824-4120, ext. 56606; E-mail: sauld@uoguelph.ca

I have read the information provided for the study “Managing Veterinary Euthanasia and Client Grief” as described herein. My questions have been answered to my satisfaction, and I agree to participate in this study. I have been given a copy of this form.

_______________________________________
Name of Participant (please print)

_______________________________________
Signature of Participant Date
A.3. Managing Veterinary Euthanasia and Client Grief – Individual interviews consent form

CONSENT FORM

Managing Veterinary Euthanasia and Client Grief: Individual Interview

Dear Veterinary Clinic Owner and/or Manager. We are inviting members of your clinic to participate in an important study concerning euthanasia and client grief. The primary researchers for this study are Dr. Deep Khosa and Alisha Matte, and the sponsor for the study is the Pet Trust Fund, Ontario Veterinary College, University of Guelph.

PURPOSE OF THE STUDY

The main purpose of this study is to better understand what is currently happening in veterinary clinics in terms of the euthanasia process and managing client grief before, during and after euthanasia. The information we gather from veterinary team members about euthanasia and client grief will help us achieve a secondary purpose, which is to develop a protocol for veterinary clinics about managing euthanasia and client grief.

PROCEDURES

If your clinic agrees to participate in this study, one member from our research team (i.e. Dr. Khosa, or Alisha Matte), will travel to your clinic and conduct individual interview(s) that should take no more than 1.5 hours of your clinic’s time per interview. The timing of this interview can occur at whatever time is convenient for your clinic. We are offering to provide lunch for all clinic staff regardless of whether they agree to be interviewed so, the interview can occur over the lunch break if that is more convenient than other times or at the end of your work day.

If you, as the clinic owner or manager, agree to allow us to interview you and/or your staff we ask you to ask each individual staff member about whether they would like to take part in the interview and assume that no staff member will feel pressured to attend. Interviews can be conducted individually or as a group. We ask that you also ask your staff which interview method is preferred. We will bring copies of this consent form with us for participants to sign.

During an individual interview, we will take notes to summarise what is being said. We will not record any names or details of the people involved in the interview only the date of the interview. We will also digitally audio record the interview and only use this recording to clarify details in our summary notes. After or during the interview, if for any reason you do not want to be involved in the study, tell us and we will remove all clinic data from our research.

By being involved in this study you have the opportunity to receive feedback about the research findings. Please tell us by either emailing dkhosa@uoguelph.ca or phoning (519) 824-4120 ext. 54470 if you would like to be contacted again to receive information about our findings.
POTENTIAL RISKS AND DISCOMFORTS

We are aware that by providing feedback about euthanasia and client grief are topics that may remind you of sad situations. These memories may be emotional for you; we hope that these emotions will not be upsetting. If you do feel upset and want to talk to someone you can contact a crisis hotline at any time Local: (519) 821-0140. Toll-free: 1-877-822-0140 or the Ontario Veterinary College’s Pet Loss Support Hotline on (519) 824-4120 ext.53694. We are here to listen to you and are trained to be emotionally supportive and respectful at all times.

POTENTIAL BENEFITS TO PARTICIPANTS AND/OR TO SOCIETY

We expect that the feedback you provide will greatly benefit the veterinary profession and the clients and animals that visit veterinary clinics requiring euthanasia for their pets. In addition, the field of grief due to pet loss and the human animal bond will also benefit in this knowledge.

PAYMENT FOR PARTICIPATION - COMPENSATION

There is no payment for participation however, we will be offering a pizza lunch for all staff whether they agree to be interviewed or not and we expect the value to be around $50. Please inform us of staff special dietary needs.

CONFIDENTIALITY AND ANONYMITY

In this study anonymity cannot be assured as we are conducting face to face interviews with the researcher who will know your identity. Please be assured that anything you do say will be kept confidential by the research team. We will be advising all participants not to discuss what anyone said in any of the interviews once they leave the interview.

We will not use any identifiable codes when summarising what is said during the interview. We will only record the date of the interview. Every effort will be made to ensure confidentiality of any identifying information that is obtained in connection with this study. The information you provide will only be accessible by the investigators (Dr. Khosa and Alisha Matte). The primary investigator (Dr. Khosa) will store any written material related to the interview and audiotapes of the interview in a lockable filing cabinet in Dr. Khosa’s office at the Ontario Veterinary College which is securely locked. After the study is complete (approximately 1-2 years after the interview) all written summary notes (data) and digital audio recordings from the interview will be destroyed. Electronic data, including digital audio recordings will be stored securely on a computer in Dr. Khosa’s lockable office.

PARTICIPATION AND WITHDRAWAL

We strongly respect participant’s decision to withdraw their data from the study. If you wish to do so, please contact us at any time and we will remove your data. You may contact Dr. Khosa (Primary Investigator) on 519 824 4120 ext. 54470 or email dkhosa@uoguelph.ca. In addition, if
the clinic owner and or manager deems it necessary to remove all data from their clinic for whatever reason we will also respect that decision.

**WHO TO CONTACT?**

If you have any questions or concerns about the research, please feel free to contact Dr. Deep Khosa (Primary Investigator) on 519 824 4120 ext. 54470 or email dkhosa@uoguelph.ca

**RIGHTS OF RESEARCH PARTICIPANTS**

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. This study has been reviewed and received ethics clearance through the University of Guelph Research Ethics Board. You have the right to receive feedback about the results from this study via email. If you have questions regarding your rights as a research participant, contact:

If you have questions regarding your rights as a research participant, contact: Sandy Auld, Director, Research Ethics; Telephone: (519) 824-4120, ext. 56606; E-mail: sauld@uoguelph.ca

**I have read the information provided for the study “Managing Veterinary Euthanasia and Client Grief” as described herein. My questions have been answered to my satisfaction, and I agree to participate in this study. I have been given a copy of this form.**

_______________________________________
Name of Participant (please print)

_______________________________________  __________________
Signature of Participant                  Date
**A4. Group and individual interview question guide**

**Veterinary Euthanasia and Client Grief Question Guide**

**Introduction**

Hello and welcome.

My name is ____________, I am from the Ontario Veterinary College and will be moderating the discussion today. *Introduce assistant if present. This is __________, my assistant. She will also be sitting in on today’s discussion.*

Thank you for taking the time to participate in today’s discussion. We are here today to discuss and collect valuable information about the management of veterinary euthanasia and client grief to help us understand how this process works and importantly how you deal with the process.

The purpose of this study is to gather information from you about the euthanasia process and the management of client grief in veterinary clinics. Particularly we are interested in what happens before, after and during the euthanasia process as well as resources used for client grief management. The information you provide will help us understand what euthanasia practices are currently being used, as well as services that are being provided to owners to assist with pet loss grief. In the future, we would also like to use this information to develop guidelines and information for veterinary clinics about how best to manage euthanasia and client grief support.

We will be recording today’s session with audio recorders and will also be taking notes. The recorders are here to ensure that no important details of the discussion are missed. Only the investigators on this team, myself and ______ as well as the transcriber (if used) will have access to these recordings. Following the completion of the study, these tapes will be destroyed. To protect your confidentiality, the transcripts of these recording will not contain anything that can identify you. Please ensure that you speak clearly and audibly so that the recorders are able to capture the discussion. *For Group Interview: We would like to hear everyone’s opinions and input today. It is also okay to disagree, because there are no right or wrong answers, so please speak freely. But we do ask that only one person speaks at a time. For Individual Interview: Please feel free to speak freely and openly.*

The interview today will be semi-structured, meaning informal and more like an open discussion. We will ask you questions related to the topic being discussed today and may also use follow-up questions to clarify any information. The discussion should only last about an hour and a half. We have also provided lunch/dinner for everyone in the clinic. Feel free to get up and help yourself to the food provided.

I must also mention that due to the sensitive nature of this topic it may bring up emotions or experiences that may be difficult or emotional. If these feelings do arise, please feel free to leave the study at any point, there will be no consequence and we will also provide resources to assist in resolving these emotions. If you do feel upset and want to talk to someone you can contact a crisis hotline or the Ontario Veterinary College’s Pet Loss Support Hotline. This contact
information has been listed on the consent form, they are there to listen to you and are trained to be emotionally supportive and respectful at all times.

Please be aware that you have the option to leave the study at any time. If you need to leave at any point please feel free to, but please do so quietly. We also ask that you please turn off all cellphones or electronic devices for the duration of the discussion.

Do you have any questions before we begin?

Start

I know everyone probably already knows each other, but for my benefit, let’s start by going around the room, introducing yourselves and tell us about your favorite thing to do in your spare time. We/I will start….

Question Guide

To begin, could you please give me a brief overview of the euthanasia process in your clinic.

Before Euthanasia:

Let’s start by talking about what happens, before a client enters the clinic with their pet, how does the clinic prepare for their arrival?

Prompts:
- Describe to me the process that the staff follows to prepare for their arrival.
- Please describe atmosphere is the clinic trying to create.
- How is the procedure altered if the clients choose to be present vs. not wanting to be present?
- How is paperwork, payment and scheduling handled?

Communication: I would like to ask you some questions about how and what you communicate to clients during companion animal euthanasia.

Prompts:
- Tell me what is communicated to the owners?
- What do you feel is the most important to commute to the owner?
- Who takes on the responsibility of communicating with the owner(s) at this time?

During Euthanasia:

Please walk me through the steps that your clinic and staff take once the client(s) and patient have been guided to the room that has been set up for the procedure?

Prompts:
- What are some of your initial considerations (what are your main priorities) when moving forward with the process?
• For veterinarians: please describe to me how you perform euthanasia.
• For other staff: what is your role as the veterinarian is performing euthanasia?

**Emotional Support:** I would like to ask you some questions about how you support clients through euthanasia.

• In terms of client support, what do you feel your role is during the euthanasia process and how do you go about conducting this role?
• How do you assess a client’s emotional state?
• If the owner is visibly upset, what techniques do you use to help owners cope with the emotions they are feeling?
• What techniques or resources do you use to help owners cope with the emotions they are feeling?
• If an owner seems particularly upset and is displaying symptoms of grief, what kind of interaction or resources may you provide them to assist?
• Of the resources that you provide or have provided in the past, which do you believe to be the most effective or useful?
• Do you feel that you are effectively trained to support clients during the grief they experience while at your clinic? What are some common comments you make to clients who are having difficulty coping with the loss?
• Has anyone here had exposure or worked with a resident psychologist and do you feel that they would be helpful in veterinary clinics?

**After Euthanasia:**

Once the procedure is over and if the client(s) have been chosen to be present, what are the next steps the clinic takes to complete the appointment? Guide me through the steps that are taken following the completion of the euthanasia.

**Prompts:**
• How do you follow-up with clients?
• What do you feel is important to discuss before clients leave?
• Describe to be a situation where you felt follow-up care was particularly important?
• What are your perceptions on how you or your clinic currently follows up with clients?

**Impacts on Veterinary Professionals:** Let’s talk about the impacts that euthanasia and supporting pet owners has on you as the veterinary professional.

**Prompts:**
• At this time, we understand that the main focus is the patient and client(s), however, what kind of thoughts do you have when proceeding with the euthanasia?
• How do you personally handle your responsibilities around euthanasia?
• Due to the sensitive and emotional nature of euthanasia, we recognize that emotion fatigue can be a common occurrence – this is where individuals to use all of their
emotions for others and have none left for themselves, is this something you have recognized yourself?

- What kind of mechanisms do you use to reduce or prevent this?

**Cremation/Memorialization:** Tell me about the process that is used to transfer the pet’s body to a cremation facility? What is your usual procedure at this clinic?

It is becoming increasingly popular for pet owners to purchase memorialization products, such as urns, paw prints and jewellery, to remember their pets. What has been your experience with clients wishing to memorialise their pets?

**Other:**

- Understanding that euthanasia is a difficult process and not one that anybody particularly likes doing, what part of the process do you feel you have the best grasp on, or you are the most prepared for? What part of the process do you feel you are the least prepared for?

That concludes the questions that we had for you today. Thank you again for taking the time to be here today and participating in our study. The answers you have provided us will be valuable in understanding the management of veterinary euthanasia and client grief. If you have any further questions, our contact information is provided on the copies of the consent form given to you. Thank you again for your time, please help yourself to any of the food or snacks and please enjoy the rest of your day.
Appendix B: An Exploration of Veterinarians' use of Bond-centered Practices During Companion Animal Euthanasia

B1. Email script sent to veterinary clinics to inquire about their interest in participating in the questionnaire exploring the management of companion animal euthanasia and client grief.

B2. Poster advertisement of the questionnaire exploring the management of companion animal euthanasia and client grief.

B3. Reminder email sent to veterinary clinics 2 weeks after the release of the questionnaire exploring the management of companion animal euthanasia and client grief.

B4. Exploring the Management of Companion Animal Euthanasia and Client Grief Questionnaire
To whom it may concern,

My name is Alisha Matte. I am a PhD student emailing from the Ontario Veterinary College regarding a survey we are conducting as part of my PhD thesis project. I am emailing you to inquire if your organization would be willing to email the details of this survey to all clinics, veterinarians or technicians within Ontario whom are registered members of your organization? If you approve our inquiry, we would ask that you forward the written text below in an email with the participant letter attached. This study has been approved by the Research Ethics Approval Board at the University of Guelph (REB#14MY006).

Dear Veterinary Professionals,

We are excited to announce the release of an important survey Exploring the Management of Companion Animal Euthanasia and Client Grief conducted by Alisha Matte, PhD student and Dr. Deep Khosa, BVMS, MANZCVS, PhD from the Ontario Veterinary College.

This survey explores the practices of companion animal euthanasia and the management of client grief among companion animal veterinary professionals.

You are eligible to participate if:

- You are employed in a companion animal veterinary setting in Ontario
- Perform or assist with companion animal euthanasia procedures
- All clinic staff are invited to participate including:
  - Veterinarians
  - Practice owners
  - Practice managers
  - Veterinary technicians
  - Veterinary receptionist
  - Veterinary assistants, and;
  - Client care specialists
  - Kennel assistants
  - Volunteers
  - Counsellors/Social workers

Upon completion of the questionnaire participants are eligible to participate in a draw to win one of five gift card prizes. Winners can select the vendor of the gift card from the list provided: Shoppers Drug Mart, Amazon, Apple, Chapters & Starbucks
  - One $150 gift card
  - One of two $50 gift cards
  - One of two $25 gift cards.

To reach all clinic staff, we ask that you please forward this email and information to other staff members in your clinic, colleagues or friends.

Please following the link below to be directed to the survey:

[Survey Link]
If you have any questions please contact, Alisha Matte amatte@uoguelph.ca or Dr. Deep Khosa, BVMS, MANZCVS, PhD dkhosa@uoguelph.ca.

Thank you kindly,

Alisha Matte & Dr. Deep Khosa
PhD Student, Epidemiology
Department of Population Medicine
Ontario Veterinary College
B2. Poster advertisement of the questionnaire exploring the management of companion animal euthanasia and client grief.

We are currently recruiting veterinarians and veterinary staff from companion animal practices in Ontario to participate in this survey.

Please visit the link below:
http://bit.ly/2o00o1G

Participants can win one of five gift card prizes.
- One $150 gift card
- One of two $50 gift cards
- One of two $25 gift cards

Please contact Alisha Matte at amatte@uoguelph.ca with any questions
B3. Reminder email sent to veterinary clinics 2 weeks after the release of the questionnaire exploring the management of companion animal euthanasia and client grief.

Dear veterinary professionals,

With the closing date fast approaching, we would like to remind you about the important survey Exploring the Practices of Companion Animal Euthanasia and Client Grief Support. If you have already completed this survey, we greatly appreciate your participation and ask you to disregard this email. For all other professionals, we greatly value your input on this subject. We hope to use the results of this survey to inform guidelines to assist veterinary professionals in the management of companion animal euthanasia and client grief.

You are eligible to participate if:

- You work in a companion animal veterinary clinic or mobile service in Ontario
- Perform or assist with companion animal euthanasia
- **ALL** clinic staff are invited to participate (i.e. veterinarians, technicians, assistants, etc.)

Please note:

- We anticipate this survey will take 15-30 minutes to complete
- Your responses are completely anonymous
- **Survey closes June 19, 2017**
- Research approval received from University of Guelph Research Ethics Board (REB#14MY006)

Follow this link to the Survey:

[Survey link]

Participants may choose to enter a draw to win one of five gift card prizes:

- A $150 gift card
- One of two $50 gift cards
- One of two $25 gift cards

*Winners can select the vendor of the gift card from the list provided: Shoppers Drug Mart, Amazon, Apple, Chapters & Starbucks*

To reach all clinic staff in Ontario, we ask that you please forward this email to other staff members in your clinic, colleagues or friends.

If you have any questions please contact, Alisha Matte amatte@uoguelph.ca or Dr. Deep Khosa dkhosa@uoguelph.ca (PhD supervisor) at the Ontario Veterinary College.

Thank you kindly,
Alisha Matte  
PhD student, Epidemiology  
Department of Population Medicine  
Ontario Veterinary College  
amatte@uoguelph.ca
Exploring the Management of Companion Animal Euthanasia and Client Grief

Alisha Matte, PhD Student
Dr. Deep Khosa, PhD supervisor

Department of Population Medicine
Ontario Veterinary College
University of Guelph
50 Stone Road E.
Guelph, Ontario N1G 2W1
Dear veterinary professional,

Thank you for taking part in this important survey Exploring the Practices of Companion Animal Euthanasia and Client Grief which is part of a study that is exploring companion animal euthanasia practices and the management of client grief in Ontario veterinary clinics. We greatly value your input in this subject as the results from this survey will provide us with a better understanding of what is currently being done and used in companion animal clinical settings. We hope to use the results of this survey to inform guidelines to assist veterinary professionals in the management companion animal euthanasia and client grief.

You are eligible to participate if:

- You work in a companion animal veterinary clinic or mobile service in Ontario
- Perform or assist with companion animal euthanasia
- ALL clinic staff are invited to participate (i.e. veterinarians, technicians, assistants, etc.)

Please note:

- We anticipate this survey will take 15-30 minutes to complete (via Internet)
- Your responses are confidential
- Research approval received from University of Guelph Research Ethics Board (REB#14MY006)

Participants may choose to enter a draw to win one of five gift card prizes:

- A $150 gift card
- One of two $50 gift cards
- One of two $25 gift cards

Winners can select the vendor of the gift card from the list provided: Shoppers Drug Mart, Amazon, Apple, Chapters & Starbucks

To reach all clinic staff in Ontario, we ask that you please forward this email to other staff members in your clinic, colleagues or friends.

If you have any questions please contact, Alisha Matte amatte@uoguelph.ca or Dr. Deep Khosa dkhosa@uoguelph.ca (PhD supervisor) at the Ontario Veterinary College.

Thank you kindly,
Alisha Matte
PARTICIPANT CONSENT FORM
Managing Veterinary Euthanasia and Client Grief

Dear Veterinary professional,

We are inviting you and members of your clinic to participate in an important study exploring companion animal euthanasia and client grief. This study is being conducted by Alisha Matte (PhD Student) and Dr. Deep Khosa BVMS, MANZCVS, PhD at the Ontario Veterinary College, University of Guelph and is funded by the Ontario Veterinary College Pet Trust Fund.

PURPOSE OF THE STUDY
The primary goal of this study is to better understand what is currently practiced in companion animal veterinary clinics before, during and after euthanasia procedures in addition to how client grief is managed. The information collected in this survey will help to achieve a secondary goal, which is to develop guidelines to support veterinary clinics with euthanasia procedures and managing client grief.

PROCEDURES
The survey will include a series of multiple choice, scale and short answer questions. Topics will include euthanasia protocols, staff roles and grief support methods. The time to complete this survey is estimated to be 20-30 minutes.

POTENTIAL RISKS AND DISCOMFORTS
We are aware that discussing euthanasia and grief may remind you of sad situations. If you do feel upset and want to talk to someone you can contact the crisis hot-line at any time, toll-free: 1-877-822-0140.

POTENTIAL BENEFITS TO PARTICIPANTS AND/OR TO SOCIETY
We expect that the feedback you provide will greatly benefit veterinary professionals, clients and companion animals who experience or participate in companion animal euthanasia.

PAYMENT FOR PARTICIPATION - COMPENSATION
Upon completion of the questionnaire, participants can choose to be entered into a draw for a gift card prize. Participants have a chance to win one of five gift cards, including a $150 gift card, one of two $50 gift cards and, one of two $25 gift cards. Winners can select the brand of gift card from the following list, Shoppers Drug Mart, Amazon, Apple, Chapters and, Starbucks.

Please note, the draw asks for identifying information, including your name and contact information. For auditing purposes, the contact information of the prize winners will be recorded. All contact information will remain confidential.

PARTICIPATION AND WITHDRAWAL
Due to the confidentiality of responses, participants cannot withdraw responses, however they are free to stop participating at any time by simply exiting the questionnaire.

RIGHTS OF RESEARCH PARTICIPANTS
Participation is completely voluntary. You are free to decline to participate for any reason. You may stop participating at any time or refuse to answer any questions without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. This research has been reviewed and approved for ethics clearance by the University of Guelph Research Ethics Board (REB #14MY006). If you have questions regarding your rights as a research participant, contact: Sandy Auld, Director, Research Ethics; Telephone: (519) 824-4120, ext. 56606; e-mail: sauld@uoguelph.ca

WHO TO CONTACT
If you have any questions about the research study please contact, Alisha Matte (PhD student) amatte@uoguelph.ca or Dr. Deep Khosa (Advisor) dkhosa@uoguelph.ca. I have read the information provided to me about the study “Exploring the Management of Companion Animal Euthanasia and Client Grief” as described herein.

Do you consent to participate in this survey?
_____ I agree
_____ I disagree

DEMOGRAPHIC QUESTIONS

Q1: How would you classify your clinic? (Select all that apply)
_____ Small animal practice
_____ Mixed animal practice
_____ Large animal practice
_____ Exotic animal practice
_____ Mobile practice
_____ Locum service
_____ Emergency clinic
_____ University hospital
_____ Humane Society
_____ Other: ____________________

Q2: What is your gender?
_____ Male
_____ Female
_____ Do not wish to specify

Q3: In what year were you born? ____________________

Q4: What is your qualification/employment position at your current veterinary clinic? (Select all that apply)
Q5: Did you attend college or university to receive training for your current position?
   _____Yes
   _____No

Q6: What school did you attend? __________________________

Q7: What year did you graduate? _________________________

Q8: What duties are you responsible for during a euthanasia procedure? (Select all that apply)
   _____Book appointments
   _____Prepare the clinic/room
   _____Complete paperwork
   _____Complete payment
   _____Assist with the procedure
   _____Perform technical procedures (e.g. place catheter, etc.)
   _____Perform euthanasia
   _____Prepare the body for aftercare
   _____Follow-up with clients
   _____Support clients
   _____Other: ____________________

Q9: Approximately how many years have you been working at your current clinic? _________

Q10: Do you currently hold a membership with any of the following organizations? (Select all that apply)
     _____American Animal Hospital Association (AAHA)
     _____International Association of Animal Hospice and Palliative Care (IAAHPC)
     _____Association of Pet Loss and Bereavement (APLB)
     _____American Veterinary Medical Association (AVMA)
     _____Canadian Veterinary Medical Association (CVMA)
     _____Ontario Veterinary Medical Association (OVMA)
     _____Ontario Association of Veterinary Technicians (OAVT)
     _____No memberships
     _____Other: ____________________
Q11: In which province or territory is your clinic located?

- Ontario
- Manitoba
- Quebec
- Alberta
- Saskatchewan
- British Columbia
- Nova Scotia
- New Brunswick
- Prince Edward Island
- Newfoundland
- Labrador
- Northwest Territories
- Nunavut
- Yukon

Q12: Is your clinic located in a rural, urban or suburban setting?

- Rural (outside a city)
- Urban (within a city)
- Suburban (on the city limits)

Q13: Approximately how many staff members are currently employed at your clinic?

- 1 to 5 employees
- 6 to 10 employees
- 11 to 15 employees
- 16 to 20 employees
- 21 to 25 employees
- 26 to 30 employees
- More than 30 employees

Q14: On average, approximately how many euthanasia procedures does your clinic perform per week?

- Less than one euthanasia/week
- 1 to 5 euthanasias/week
- 6 to 10 euthanasias/week
- 11 to 15 euthanasias/week
- 16 to 20 euthanasias/week
- More than 20 euthanasias/week

Q15: Does your clinic offer hospice or palliative care?

- Yes
- No
Q16: Does your clinic offer in-home euthanasia?
   _____Yes
   _____No
   _____Only in specific cases

Q17: In what case do you offer in-home euthanasia? (Select all that apply)
   _____We have a relationship with the client
   _____The client requests in-home euthanasia
   _____The animal can't be transported
   _____The client can't drive
   _____Other: ____________________

SECTION TWO – JEFFERSON EMPATHY SCALE

Instructions: Please indicate the extent of your agreement or disagreement with each of the following statements by selecting the appropriate number on the scale provided after each statement. You can place an X in the circle or fill it in. Please use the following 7-point scale (a higher number on the scale indicates more agreement

1-------2-------3-------4-------5-------6-------7
Disagree  Strongly Agree

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Veterinarians’ understanding of their clients’ feelings does not influence medical or surgical treatment.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Clients feel better when their veterinarians understand their feelings.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. It is difficult for a veterinarian to view things from clients’ perspectives.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Understanding body language is as important as verbal communication in veterinary-client relationships.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. A veterinarian’s sense of humor contributes to a better clinical outcome.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Because people are different, it is difficult to see things from clients’ perspectives.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Attention to clients’ emotions is not important in history taking.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Attentiveness to clients’ personal experiences does not influence treatment outcomes.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Veterinarians should try to stand in their clients’ shoes when providing care for their animals.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
10. Clients value a veterinarian’s understanding of their feelings.

11. Animals’ illnesses can be cured only by medical or surgical treatment; therefore, veterinarians’ emotional ties with their clients do not have a significant influence in medical or surgical treatment.

12. Asking clients about what is happening in their personal lives is not helpful in understanding their animal’s physical health.

13. Veterinarians should try to understand what is going on in their clients’ minds by paying attention to their non-verbal cues and body language.

14. I believe that emotion has no place in the treatment of medical illness.

15. Empathy towards the client is a therapeutic skill without which the veterinarian’s success is limited.

16. Veterinarians’ understanding of the emotional status of their clients is one important component of the veterinarian-client relationship.

17. Veterinarians should try to think like their clients to render better care.

18. Veterinarians should not allow themselves to be influenced by strong bonds between clients and their animals.

19. I do not enjoy reading non-medical literature or the arts.

20. I believe that empathy towards the client is an important therapeutic factor in veterinary medical treatment.

<table>
<thead>
<tr>
<th>Question</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1. How much time does your clinic schedule for general wellness appointments?</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
</tr>
<tr>
<td>☑ &lt; 15 minutes</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
</tr>
<tr>
<td>☑ 15 - 30 minutes</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
</tr>
<tr>
<td>☑ 31 - 45 minutes</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
</tr>
<tr>
<td>☑ 46 - 60 minutes</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
</tr>
<tr>
<td>☑ &gt; 60 minutes</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
</tr>
</tbody>
</table>

SECTION THREE – ADMINISTRATIVE PRACTICES

Questions in this section will focus on the administrative aspects of companion animal euthanasia.

Q1. How much time does your clinic schedule for general wellness appointments?

☒ < 15 minutes
☒ 15 - 30 minutes
☒ 31 - 45 minutes
☒ 46 - 60 minutes
☒ > 60 minutes
Q2. How much time does your clinic schedule for euthanasia appointments?
- ə < 15 minutes
- ə 15 - 30 minutes
- ə 31 - 45 minutes
- ə 46 - 60 minutes
- ə > 60 minutes

Q3. How often are euthanasia appointments scheduled at the following times of day? Please write a number between 0 and 100 on the space provided before each option. (0 being never, 100 being always)
- Before the clinic opens
- In the morning
- In the afternoon
- In the evening
- When the clinic closes

Q4. What paperwork is completed for a euthanasia procedure? (Select all that apply)
- Proof of ownership
- Cremation approval
- Sedation approval
- A consent form
- Other: ______________________

Q5. How often is payment received at the following times? Please write a number between 0 and 100 on the space provided before each option. (0 being never, 100 being always)
- Before the appointment
- During the appointment
- After the appointment
- At another time/date

Q6. How often are euthanasia procedures performed in the following settings? Please write a number between 0 and 100 on the space provided before each option. (0 being never, 100 being always)
- Exam room
- Euthanasia room
- Treatment area
- Surgery room
- At client's home
- Other:
Q7. Which of the following are used to prepare the exam/euthanasia room? (Select all that apply)
❑ Blankets
❑ Clean the room
❑ Kleenex
❑ Pet Treats
❑ Dim the lights
❑ Candles
❑ Music
❑ Other: ____________________

Q8. Do you indicate to other staff in the clinic, that a euthanasia is being performed? e.g. stethoscope on a door handle, etc.)
❑ Yes
❑ No

Q9. How do you indicate to other staff that a euthanasia is being performed?

Q10. Do you indicate to other clients in the clinic, that a euthanasia is being performed? e.g. stethoscope on a door handle, etc.)
❑ Yes
❑ No

Q11. How do you indicate to clients that a euthanasia is being performed?

Q12. Does your clinic have a separate exit for clients after a euthanasia procedure?
❑ Yes
❑ No
❑ Other: ____________________

Q13. Please respond to the following questions with a yes or no response.

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is there a limit on the number of people allowed in the room at the time of euthanasia?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Do you allow children to be present at the time of euthanasia?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Do you allow other household companion animals to be present at the time of euthanasia?</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
SECTION FIVE – COMMUNICATION PRACTICES

Topics in this section with focus on the communication which occurs with the client during the euthanasia procedure.

Q1. How often do you discuss the following topics with clients before performing a euthanasia?

<table>
<thead>
<tr>
<th>Topic</th>
<th>Always</th>
<th>Very Often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client's option to be present or not</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Amount of time clients want to spend with the pet</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Companion animal's prognosis</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>What to expect</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Technical protocols (e.g. sedation, catheter, etc.)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>The mechanism of action of sedation/anesthesia</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Aftercare of companion animal</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Cremation</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Memorialization</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Q2. Before performing euthanasia, how often do you inquire about the following client information?

<table>
<thead>
<tr>
<th>Topic</th>
<th>Always</th>
<th>Very Often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client's expectations</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Client's comfort level</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Client's previous experience with euthanasia and death</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Client's relationship with their companion animal</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Client's support network</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Client's emotional state</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Client's spirituality</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
Q3. Regarding your current euthanasia protocols, please rate your agreement to the following statements on a scale of strongly disagree to strongly agree.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I believe it is important to assess the individual wishes of clients</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I believe it is important to tailor my euthanasia practices based on the wishes of clients</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I prefer not to alter my euthanasia practices regardless of the wishes of clients</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

SECTION SIX – PERFORMING EUTHANASIA

Topics in this section will discuss the technical protocols you utilize during companion animal euthanasia.

Q1. Which euthanasia method do you prefer to use?
   - ☐ One-step method (i.e. euthansol injection)
   - ☐ Two-step method (i.e. sedation and euthansol injection)
   - ☐ Two-step method (i.e. anesthesia and euthansol injection)
   - ☐ Three-step method (i.e. sedation, anesthesia and euthanasia injection)
   - ☐ Other: ____________________

Q2. How often do you use the following technical protocols when performing companion animal euthanasia? Write a number between 0 and 100 on the space provided before each option. (0 being never, 100 being always)

Sedation

_____ For cats
_____ For dogs
What drugs do you use for sedation during a euthanasia?

____________________________________

For cats: What level of sedation do you typically use?

- Mild
- Moderate
- Deep
- Other: ____________________

For dogs: What level of sedation do you typically use?

- Mild
- Moderate
- Deep
- Other: ____________________

Q3. How often do you use the following technical protocols when performing companion animal euthanasia? Write a number between 0 and 100 on the space provided before each option. (0 being never, 100 being always)

**Catheters**

_____ For cats

_____ For dogs

Q4. How often do you use the following technical protocols when performing companion animal euthanasia? Write a number between 0 and 100 on the space provided before each option. (0 being never, 100 being always)

**Butterfly catheters**

_____ For cats

_____ For dogs

For cats: Is there a specific vein you prefer to place a catheter?

- Yes
- No

For cats: Which vein do you prefer?

- Cephalic
- Saphenous
- Other: ____________________
For cats: Why do you prefer this vein?

For dogs: Is there a specific vein you prefer to place a catheter?
- Yes
- No

For dogs: Which vein do you prefer?
- Cephalic
- Saphenous
- Other: ____________________

For dogs: Why do you prefer this vein?

Q5. How often do you use the following technical protocols when performing companion animal euthanasia? Write a number between 0 and 100 on the space provided before each option. (0 being never, 100 being always)

**Anesthesia**
- _____ For cats
- _____ For dogs

  What drugs do you use for anesthesia during a euthanasia?

  ________________________________________________________________

Q6. How often do you use the following technical protocols when performing companion animal euthanasia? Write a number between 0 and 100 on the space provided before each option. (0 being never, 100 being always)

**Direct needle and syringe**
- _____ For cats
- _____ For dogs
Q7. How often do you discuss the following with clients before performing the euthansol injection?

<table>
<thead>
<tr>
<th></th>
<th>Always</th>
<th>Very often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>The mechanisms of action of euthansol</td>
<td>⬜️</td>
<td>⬜️</td>
<td>⬜️</td>
<td>⬜️</td>
<td>⬜️</td>
</tr>
<tr>
<td>Sensations the animal may experience</td>
<td>⬜️</td>
<td>⬜️</td>
<td>⬜️</td>
<td>⬜️</td>
<td>⬜️</td>
</tr>
<tr>
<td>Length of time until the animal will pass</td>
<td>⬜️</td>
<td>⬜️</td>
<td>⬜️</td>
<td>⬜️</td>
<td>⬜️</td>
</tr>
<tr>
<td>What to expect physically (e.g. muscle twitch)</td>
<td>⬜️</td>
<td>⬜️</td>
<td>⬜️</td>
<td>⬜️</td>
<td>⬜️</td>
</tr>
<tr>
<td>Emotions the client may experience after</td>
<td>⬜️</td>
<td>⬜️</td>
<td>⬜️</td>
<td>⬜️</td>
<td>⬜️</td>
</tr>
<tr>
<td>Other:</td>
<td>⬜️</td>
<td>⬜️</td>
<td>⬜️</td>
<td>⬜️</td>
<td>⬜️</td>
</tr>
</tbody>
</table>

Q8. What drugs are used for the final injection? (Select all that apply)
- Euthansol
- Sodium pentobarbital
- T-61
- Tributame
- Other: ____________________

Q9a. For Cats: How often do you administer euthansol by the following methods? Write a number between 0 and 100 on the space provided before each option. (0 being never, 100 being always)
- Venous injection
- Intracardiac injection
- Intrahepatic injection
- Intrarenal injection
- Peritoneal injection
- Oral dose
- Inhalation
- Other:
Q9b. For Dogs: How often do you administer euthansol by the following methods? Write a number between 0 and 100 on the space provided before each option. (0 being never, 100 being always)

- Venous injection
- Intracardiac injection
- Intrahepatic injection
- Intrarenal injection
- Peritoneal injection
- Oral dose
- Inhalation
- Other:

Q10. How often do the following companion animal characteristics affect the technical protocols you utilize during a companion animal euthanasia procedure? Write a number between 0 and 100 on the space provided before each option. (0 being not at all, 100 being always)

- Companion animals' age
- Companion animals' species (i.e. cat or dog)
- Size of the companion animal
- Companion animals' health condition
- Companion animals' disposition

Q11. Which methods below are used to confirm death? (Select all that apply)

- Absence of breathing
- Absence of heartbeat
- Absence of corneal reflex
- Absence of retinal reflex
- Absence of response to external stimuli
- Examination of mucous membrane
- Rigor mortis
- Other: ____________________

SECTION SEVEN – EUTHANASIA PROTOCOL DEVELOPMENT

Q1. How greatly have the following factors influenced the development of your current companion animal euthanasia protocols? Write a number between 0 and 100 on the space provided before each option. (0 being no influence, 100 being greatly influenced)

0 10 20 30 40 50 60 70 80 90 100

No influence  Moderately influence  Greatly influenced

- Professional education (e.g. veterinary school, technician school, etc.)
- Continuing education (e.g. conferences, workshops, etc.)
- Protocols from past clinics
- Past euthanasia experiences
Q2. Regarding your current euthanasia protocols, rate your agreement to the following statements on a scale of strongly disagree to strongly agree.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am interested in learning new technical protocols for euthanasia</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I am satisfied with the technical protocols I currently use</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

SECTION EIGHT – BODY AFTERCARE

Questions in this section will focus on aspects of companion animal euthanasia which occur after euthanasia has been performed.

Q1. How often do you use the following to store a companion animal's body for aftercare (i.e. cremation, etc.)?

<table>
<thead>
<tr>
<th>Item</th>
<th>Always</th>
<th>Very often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labels</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Plastic bags</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Freezer</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Fridge</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Cardboard box/coffin</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Wood box/coffin</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Plastic box/coffin</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Other: ___________</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Q2. While conducting focus groups and interviews we noticed that veterinary professionals use different terms when describing the aftercare process to clients. We are interested in learning more about the language and terms used during this time.
If asked by a client, which of the following terms would you use to describe the storage of a companion animal's body? (Select all that apply)
- A plastic bag
- A body bag
- A freezer
- Cooling device
- Cold storage
- A morgue
- I would not describe it
- Other: __________________

Q3. What would your protocol be if an owner wanted to be present for the preparation of their companion animal's body?
- Suggest they are not present
- Describe the process rather than show it
- Integrate them into the process
- Other: __________________

Q4. What crematorium does your clinic use? (Select all that apply)
- Gateway
- Pets Above
- Thistledown
- Crematorium on site
- A human crematorium
- Other: __________________

SECTION NINE – FOLLOW-UP CARE

Topics in this section will focus on follow-up with clients after euthanasia.

Q1. Do you or your clinic follow up with clients after a euthanasia procedure? (e.g. condolence card, phone call, etc.)
- Yes
- No

Q2. How often do you use the following methods to follow up with clients?

<table>
<thead>
<tr>
<th>Method</th>
<th>Always</th>
<th>Very often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condolence card</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phone call</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Email</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Text message</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Donations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Send flowers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Q3. Regarding client follow-up, rate your agreement to the following statements on a scale of strongly disagree to strongly agree.

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I believe that it is important to follow-up with clients after a euthanasia</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I believe that following-up with clients helps to support their grief</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

SECTION TEN – CLIENT SUPPORT PRACTICES

Questions in this section will focus on the client support practices utilized before, during and after companion animal euthanasia.

Q1. When do you typically assess clients' emotional state? (Select all that apply)
- ☐ At every stage
- ☐ Before the procedure
- ☐ During the procedure
- ☐ After the procedure
- ☐ I don’t assess their emotional state
- ☐ Other: ________________

Q2. How often do you use the following methods to assess a client's emotional state?

<table>
<thead>
<tr>
<th></th>
<th>Always</th>
<th>Very often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpret their emotions through observation</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Ask direct questions (e.g. How are you feeling?)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Ask indirect questions (e.g. Are you okay to drive home?)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Put myself in their shoes</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Other: ________________</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
Q3. How often do you use the following methods to support clients?

<table>
<thead>
<tr>
<th>Method</th>
<th>Always</th>
<th>Very often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sympathy (e.g. I am sorry)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Empathy (e.g. I know this must be difficult)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Normalization (e.g. It's normal...)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Validation (e.g. It's okay...)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical contact (e.g. a hug)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relate to them (e.g. When I...)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reassurance (e.g. It will be okay)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reminisce (e.g. I remember when...)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Offer comfort items (e.g. Kleenex)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remain in the room</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remain silent</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q4. How often do you use the following resources to help clients cope with the loss of their companion animal?

<table>
<thead>
<tr>
<th>Resource</th>
<th>Always</th>
<th>Very often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pet Loss Hotline</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suggest seeking a counsellor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refer to a counsellor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Literature (e.g. books)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brochures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Websites</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Q5. If applicable: What type of counselling service do you use? (Select all that apply)

- A hotline
- An online service
- A trained staff member
- Social worker in the area
- Psychologist in the area
- Certified pet loss counsellor in the area
- Social worker who works with the clinic
- Psychologist who works with the clinic
- Certified pet loss counsellor who works with the clinic
- I am not aware of any counselling services
- Other: ____________________

Q6. Would you want to improve your current client support practices?
Yes
No

Q7. If yes, please respond to the following statements on a scale of strongly disagree to strongly agree. I would improve my client support practices by:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attend continued education</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Receiving feedback from clients</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Gaining more experience</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Practicing with other staff</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Consulting the literature</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Receiving training in school</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Other:</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

SECTION ELEVEN – STAFF TRAINING

Topics in this section focus on the staff, hiring and training procedures used at your clinic or mobile service.

Q1. At your clinics, which of the following methods are used to train staff on their duties during companion animal euthanasia? (Select all that apply)
Professional education (e.g. undergraduate, etc.)
Observing other staff members
Observing other appointments
Feedback from management
Procedures are explained
Practice techniques (e.g. placing a catheter)
Role playing
No training is provided
Other: __________________

Q2. Regarding your own training, respond to the following statements on a scale of strongly disagree to strongly agree.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel well trained to perform my duties for a euthanasia procedure</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I feel well trained to provide emotional support to clients during a euthanasia procedure</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

**SECTION TWELVE – VETERINARY COPING**

Topics in this section focus on personal coping mechanisms and techniques.

Q1. How often do you use the following methods to cope with companion animal euthanasia? Please write a number between 0 and 100 on the space provided before each option. (0 being never, 100 being always)

_____ Humor
_____ Exercise
_____ Hobbies
_____ Take a moment alone
_____ Debrief with other staff
_____ Professional detachment
_____ Perform simple distracting tasks
_____ Share emotions with clients (e.g. cry)
_____ Spend time with family, friends and pets
_____ Take comfort in knowing I performed a euthanasia well
_____ Other:

Q2. How would your ability to cope with companion animal euthanasia be affected under the following circumstances? Please rate your coping ability under the following circumstances by writing a number between 0 to 100 on the space provided before each option. (0 being absolutely no coping ability and 100 being perfect coping ability).

_____ Euthanasia went well
SECTION THIRTEEN - CONCLUSION

Q1. Do you have any final comments regarding companion animal euthanasia and client support?

Q2. How did you hear about this survey?
   - Website
   - Social Media
   - A colleague
   - Email from clinic
   - An organization (e.g. CVO, OVMA, etc.)
   - Other _________________

Q3. If you would like a copy of the results, please enter your email below.

_______________________________________________________

PRIZE DRAW

Q1. Please enter the following information below to be considered for the prize draw.

   First Name: ________________________________
   Last Name: ________________________________
   Email Address: _____________________________
   Phone Number: _____________________________

Thank you for your participation! We greatly value your time and responses.

If you have any questions please contact, Alisha Matte amatte@uoguelph.ca or Dr. Deep Khosa dkhosa@uoguelph.ca (PhD supervisor) at the Ontario Veterinary College.
Appendix C: Exploring Pet Owners’ Experiences, Expectations, Self-Reported Satisfaction and Grief Following Companion Animal Euthanasia

C1. Advertisement script for questionnaire exploring pet owners’ experiences, expectations, self-reported satisfaction and grief following companion animal euthanasia posted on social media pages (e.g. Ontario Veterinary College Pet Trust Page, Instagram, Facebook)

C2. Poster advertisement of questionnaire exploring pet owners’ experiences, expectations, self-reported satisfaction and grief following companion animal euthanasia.

C3. Questionnaire exploring pet owners’ experiences, expectations, self-reported satisfaction and grief following companion animal euthanasia.
Ontario Veterinary College researchers are recruiting current and previous pet owners to participate in a survey exploring pet owners’ experience and perceptions of companion animal euthanasia. Findings of this study will help us better understand how veterinary professionals can support pet owners during companion animal euthanasia.

Participation is easy and should take approximately 20-30 minutes to complete. Responses are anonymized and confidential and participation is completely voluntary.

To be eligible to participate, you must:

- Be 18+ years of age
- Have experienced companion animal euthanasia
- Have been present at the time of companion animal euthanasia

To participate, CLICK HERE.

Or, enter one of the following links:

[Survey Link]

PARTICIPANTS ARE ELIGIBLE TO WIN A GIFT CARD PRIZES.
You can win 1 of, two $200, three $100, four $50 and four $25 gift cards.
You can select the vendor: Amazon, Apple, Indigo or Starbucks.

Funding for the study is provided by the Pet Trust Fund, Ontario Veterinary College, University of Guelph. This project has been reviewed by the Research Ethics Board for compliance with federal guidelines for research involving humans participants (REB#14MY006).

If you have any questions please contact, Alisha Matte amatte@uoguelph.ca at the Ontario Veterinary College.
C2. Poster advertisement of questionnaire exploring pet owners’ experiences, expectations, self-reported satisfaction and grief following companion animal euthanasia.

**SEEKING RESEARCH PARTICIPANTS**

ARE YOU A CURRENT? OR PAST PET OWNER?  
We want to hear from you!

Researchers want to hear about your experience, views and opinions about the practices and support your veterinary professionals used during and after companion animal euthanasia.

**What will you do?**
Participate in a questionnaire which should take 20-30 minutes to complete. Survey responses are anonymized, and participation is completely voluntary.

**Why should you help?**
Companion animal euthanasia and the loss of a beloved companion animal is a time of great sorrow. Research will help us better understand how veterinary professionals may better assist grieving pet parents in this difficult time.

Participants are eligible to win 1 of 13 gift card prizes. This will include one of two $200, three $100, four $50 and four $25 gift cards from one of the following vendors of your choice: Amazon, Apple, Indigo or Starbucks.

If you are interested, enter the link below:

[Survey Link]

**PLEASE NOTE: To be eligible to participate, you must:**
- Be 18+ years of age
- Have experienced companion animal euthanasia
- Have been present at the time of companion animal euthanasia

Please contact Alisha Matte, amatte@uoguelph.ca with any questions.

*The primary researchers for this study are Dr. Deep Khosa BVMS, Ph.D. and Alisha Matte, Ph.D. Candidate. Funding for the study is provided by the Pet Trust Fund, Ontario Veterinary College, University of Guelph. This project has been reviewed by the Research Ethics Board for compliance with federal guidelines for research involving humans participants (REB#14MY006).*
C3. Questionnaire exploring pet owners’ experiences, expectations, self-reported satisfaction and grief following companion animal euthanasia.

**TITLE PAGE**

**Exploring Pet Owners' Perceptions and Opinions of Companion Animal Euthanasia**

Thank you for taking part in this important survey exploring pet owners' perceptions and views of companion animal euthanasia. Your participation will help us better understand how veterinary professionals may better assist grieving pet parents in this difficult time.

To be eligible to participate, you must:
- Be 18+ years of age
- Reside in Ontario
- Have experienced companion animal euthanasia recently
- Have been present at the time of companion animal euthanasia

The survey should take 20 – 30 minutes to complete. All responses are anonymous and participation is completely voluntary.

Participants are eligible to win 1 of 13 gift card prizes. This will include 1 of, 2x $200, 3x $100, 4x $50 and 4x $25 gift cards from one of the following vendors of your choice: Amazon, Apple, Indigo or Starbucks.

Please feel free to share the survey link with other pet owners.

**CONSENT FORM**

**Exploring Pet Owners’ Perceptions and Opinions of Companion Animal Euthanasia**

Dear Pet owners,

We are inviting you to participate in an important study concerning companion animal euthanasia and pet owner grief, Exploring Pet Owners’ Perceptions and Opinions of Companion Animal Euthanasia. The primary researchers for this study are Dr. Deep Khosa BVMS, Ph.D. and Alisha Matte, Ph.D. Candidate. Funding for the study is provided by the Pet Trust Fund, Ontario Veterinary College, University of Guelph.

**PURPOSE OF THE STUDY**

The main purpose of this study is to better understand pet owner’s experiences and perceptions of companion animal euthanasia. The information we gather from clients about their experiences of euthanasia and pet loss will help us assist veterinary professionals in the management of companion animal euthanasia and the emotional support of veterinary clients.

**PROCEDURES**
The questionnaire will include a series of multiple choice, ranking and short answer questions. Topics will include questions regarding your opinions, view and perceptions of companion animal euthanasia and the support provided by your veterinary professionals. The time to complete this questionnaire is estimated to be 30 minutes.

To be eligible to participate in this study you must:
- Be 18+ years of age
- Reside in Ontario
- Have experienced euthanasia of a companion animal recently
- Have been present for companion animal euthanasia

**PAYMENT FOR PARTICIPATION - COMPENSATION**
Participants who complete the questionnaire will be eligible to enter a prize draw to win 1 of 13 gift card prized. Participants are eligible to win 1 of, 2x $200, 3x $100, 4x $50 and 4x $25 gift cards from one of the following vendors of their choice: Amazon, Apple, Indigo or Starbucks.

**POTENTIAL RISKS AND DISCOMFORTS**
We are aware that by providing feedback about euthanasia and personal experiences of euthanasia are topics that may remind you of sad situations. These memories may be emotional for you. If you do feel upset and want to talk to someone, you can contact a crisis hotline at any time Local: (519) 821-0140. Toll-free: 1-877-822-0140. They are there to listen to you and are trained to be emotionally supportive and respectful at all times. More resource can be downloaded HERE.

**POTENTIAL BENEFITS TO PARTICIPANTS AND/OR TO SOCIETY**
We expect that the feedback you provide will greatly benefit the veterinary profession, pet owners and companion animals that visit veterinary clinics requiring euthanasia for their pets. In addition, the field of grief due to pet loss and the human animal bond will also benefit in this knowledge.

**CONFIDENTIALITY AND ANONYMITY**
The questionnaire is completely voluntary and anonymous. However, please note, that the prize draw will ask for identifying information, including your name and contact information. For auditing purposes, the contact information of the prize winners will be recorded. All contact information will remain confidential. If you do not wish to be entered in the prize draw, simply exit the survey.

**PARTICIPATION AND WITHDRAWAL**
Due to the nature of the survey, participants cannot withdraw responses, however they are free to stop participating at any time by simply exiting the questionnaire.

**RIGHTS OF RESEARCH PARTICIPANTS**
You do not waive any legal rights by agreeing to take part in this study. This project has been reviewed by the Research Ethics Board for compliance with federal guidelines for research involving human participants. If you have questions regarding your rights and welfare as a research participant in this study (REB#14MY006), please contact: Director, Research Ethics;
If you have any questions about the research, please feel free to contact Alisha Matte, PhD candidate by email amatte@uoguelph.ca

I have read the information provided for the study “Exploring Pet Owners’ Perceptions and Opinions of Companion Animal Euthanasia” as described herein. If applicable, my questions have been answered to my satisfaction.
I Agree
I Disagree

Downloadable copy of consent form: Pet owner consent form

SECTION THREE: DEMOGRAPHIC INFORMATION

Thank you for beginning the survey! Please read below.

We recognize that many pet owners have experienced more than one companion animal euthanasia. To minimize your effort in responding to this questionnaire, please focus on ONLY ONE euthanasia experience. This may be your most recent or your most memorable experience.

First tell us a little about the companion animal who’s story you will be sharing.

Q1. What was the species of your companion animal?
   o Dog
   o Cat
   o Other ________________________________________________

Q2 How old (in years) was your companion animal when they were adopted?
   _______________________________________________________

Q3 Where did you adopt your companion animal from?
   o A breeder
   o A rescue/humane society
   o Internet/Kijiji
   o Other _________________________________________________

Q4 How would you describe the relationship you shared with your companion animal?
Select the one answer that fits your relationship.
   o A pet
   o A companion
   o A sibling
   o A family member
   o A child

Q5 How long ago was the euthanasia? (in months or years)
Q6 How old was your companion animal at the time of euthanasia? (in years)

Q7 What was the reason which lead to euthanasia?
   - Natural death (e.g. old age)
   - Unexpected cause
   - Major disease (e.g. cancer)
   - Other ________________________________

Q8 Where was the euthanasia performed?
   - In a veterinary clinic - Exam room
   - In a veterinary clinic - Euthanasia room
   - In an emergency clinic - Exam room
   - In an emergency clinic - Euthanasia room
   - In home - By veterinary clinic
   - In home - By mobile veterinary service
   - Other ________________________________

Q9. On a scale of 1-10, how strong was your relationship with the veterinarian who performed the euthanasia?

<table>
<thead>
<tr>
<th>Strength of relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>I had just met them</td>
</tr>
<tr>
<td>Somewhat familiar</td>
</tr>
<tr>
<td>Strong relationship</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

Q10. What was the gender of the veterinarian who performed the euthanasia?
   - Male
   - Female

Q11 Who else was with you during the euthanasia? (Select all that apply)
   - I was alone
   - My friend
   - My partner
   - My family
   - My children
   - My other pet(s)
   - Other ________________________________

Q12. What is your year of birth? Enter 0 if you do not wish to specify.
Q13. What is your gender?
   o Male
   o Female
   o Do not wish to specify

Q14. What is your highest level of education?
   o Some high school
   o High school diploma
   o Some college/university
   o Trades/technical/vocational training
   o Bachelor’s/associate degree
   o Post-graduate/professional degree
   o Do not wish to specify

Q15. What is your current relationship status?
   o Single
   o Married
   o Domestic Partnership
   o Divorced/Separated
   o Do not wish to specify
   o Other _______________________________________

Q16. Do you currently have children?
   o No children
   o 1 child
   o 2 children
   o 3 children
   o 4+ children
   o Do not wish to specify

SECTION TWO: EXPERIENCES, EXPECTATIONS AND SATISFACTION

2.1: ADMINISTRATIVE PRACTICES

2.1.1 Scheduling Procedure

Q1. At what time of the day did the euthanasia occur?
   o Morning
   o Afternoon
   o Evening
   o At night

Q2. Were you able to select the time and date of the euthanasia.
   o Yes
   o No
Q3. If not, why?
   ○ It wasn't an option
   ○ It was an emergency
   ○ It was sudden
   ○ Other ________________________________

2.1.2 Paperwork Procedure

Q1. At what stage of the euthanasia appointment did you complete paperwork?
   ○ Before the euthanasia
   ○ During the euthanasia
   ○ After the euthanasia

2.1.3 Payment Procedure

Q1. At what stage of the euthanasia appointment did you complete the payment?
   ○ Before the euthanasia
   ○ During the euthanasia
   ○ After the euthanasia
   ○ At another time/date

Q2. On a scale of 1-10, how satisfied were you with:

<table>
<thead>
<tr>
<th></th>
<th>Unsatisfied</th>
<th>Neutral</th>
<th>Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>The scheduling process</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The paperwork process</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The payment process</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The location of the euthanasia (i.e. at a clinic vs. at home)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q3. Please share any additional comments about the topics in this section.
________________________________________________________________

2.2 COMMUNICATION PRACTICES

This section will discuss the communication which took place between you and your veterinary professionals.

Q1. Please respond to the following statements below.
The veterinarian asked me if I wished to remain present for the euthanasia.

The veterinarian asked me about my expectations regarding the euthanasia.

The veterinarian asked me about my previous experience(s) with companion animal euthanasia

Q2. Please rate your agreement with the following statements on a scale of 1-10, 1= strongly disagree, 10 = strongly agree.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Neither agree nor disagree</th>
<th>Strongly agree</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>My veterinarian communicated with me well</td>
<td>![Rating Scale]</td>
<td>![Rating Scale]</td>
<td>![Rating Scale]</td>
<td>![Rating Scale]</td>
</tr>
<tr>
<td>I felt that the euthanasia process was fully explained to me</td>
<td>![Rating Scale]</td>
<td>![Rating Scale]</td>
<td>![Rating Scale]</td>
<td>![Rating Scale]</td>
</tr>
<tr>
<td>I felt that the veterinarian prepared me for possible side-effects</td>
<td>![Rating Scale]</td>
<td>![Rating Scale]</td>
<td>![Rating Scale]</td>
<td>![Rating Scale]</td>
</tr>
<tr>
<td>I felt I could ask the veterinarian questions at anytime</td>
<td>![Rating Scale]</td>
<td>![Rating Scale]</td>
<td>![Rating Scale]</td>
<td>![Rating Scale]</td>
</tr>
<tr>
<td>I received enough information</td>
<td>![Rating Scale]</td>
<td>![Rating Scale]</td>
<td>![Rating Scale]</td>
<td>![Rating Scale]</td>
</tr>
</tbody>
</table>

Q3. Please add any additional comments about the topics in this section.

2.3 PERFORMING EUTHANASIA

This section will focus on the technical protocols performed during companion animal euthanasia.

Q1. Please rate your agreement with the following statements on a scale of 1-10, 1= strongly disagree, 10 = strongly agree.
Q2. Please add any additional comments on the technical aspects of euthanasia.

2.4 EMOTIONAL SUPPORT PRACTICES

This section focuses on the support your veterinary professional provided you during companion animal euthanasia.

Q1. From the list below, select the method by which your veterinarian/veterinary staff used to support you.
- Offered sympathy (e.g. I am so sorry)
- Showed empathy (e.g. I can understand how you might feel)
- Offered physical contact (e.g. hug)
- Normalized my emotions (e.g. It's okay to cry)
- Validated my emotions (e.g. It's normal to feel this way)
- Shared their emotions (e.g. cried or laughed with me)
- Reassured me
- Remained silent
- Stayed with me
- Gave me a moment alone
- Listened to me
- Other, please elaborate below: ___________________________________________

Q2. Please rate your agreement with the following statement on a scale of 1-10, 1= strongly disagree, 10 = strongly agree

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Neither agree nor disagree</th>
<th>Strongly agree</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I was satisfied with the amount/types of support my veterinarian/clinic provided me

Q3. Please rate your agreement with the following statements on a scale of 1-10, 1= strongly disagree, 10 = strongly agree.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Neither agree nor disagree</th>
<th>Strongly agree</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The veterinarian listened to me
The veterinarian understood me
The veterinarian was someone I could trust
The veterinarian was accepting of me
The veterinarian clearly knew how to support me
The veterinarian was honest
The veterinarian was helpful
The veterinarian demonstrated affection towards my pet
I never felt rushed

Q4. Please respond to the following statements.

<table>
<thead>
<tr>
<th>Response</th>
<th>Yes</th>
<th>No</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>My veterinarian asked if I had sources of social support (i.e. friends or family) who could support me.</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>The veterinarian asked me how I was feeling.</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>My veterinarian discussed emotions I might expect to experience after the loss.</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>The veterinarian discussed how your other household pets may grieve.</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

Q5. Please respond to the following statements on a scale of 0-100. 0 = not at all, 100 = to a great extent

<table>
<thead>
<tr>
<th>Not at all</th>
<th>A little</th>
<th>Somewhat</th>
<th>To a great extent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Overall, how satisfied were you with the support your veterinarian provided during companion animal euthanasia?

Q6. Please add any additional comments about the support your veterinarian or other staff members provided you.

_________________________________________________________________________________

Q7. Please read and respond to the following questions.

<table>
<thead>
<tr>
<th>Did your veterinarian/clinic provide you with any resources on grief and bereavement (e.g. brochure, pamphlet, etc.)?</th>
<th>Yes</th>
<th>No</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>The resources my veterinarian/clinic provided me were helpful</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If you received information about these resources, did you use them?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If you did not receive information about these resources, would you have appreciated receiving this information?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q8. If you did receive any resources, what were they?

_________________________________________________________________________________

Q9. Please add any additional comments about receiving resources or referral information.

_________________________________________________________________________________

2.5 FOLLOW-UP PRACTICES

Q1. Which of the following methods did your veterinarian/clinic use to follow-up with you after euthanasia?
   o I didn't receive any follow-up
   o Condolence card
   o Phone call
   o Email
   o Flowers
   o Donation in pet's name
   o Other _______________________________________________________

Q2. Please rate your agreement with the following statements on a scale of 1-10. 1 = strongly disagree, 10 = strongly agree.
<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Neither agree nor disagree</th>
<th>Strongly agree</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| I was satisfied with the way the veterinarian/clinic followed-up with me was appropriate | |
|-----------------------------------------------------------------------------------------------------------------------------------|
| I felt like I was able to contact my veterinarian/clinic if I wanted to talk to them after the euthanasia | |
| The follow-up my veterinarian/clinic sent gave me emotional support | |

Q9. Please add any additional comments about follow-up?
______________________________

2.6 BODY AFTERCARE, CREMATION AND MEMORIALIZATION

This section focuses on the procedures which take place after euthanasia had been performed.

Q1. From the list below, select which aftercare/cremation products you selected.
   - I did not select any
   - Crematorium - Private
   - Crematorium - Individual
   - Crematorium - Communal
   - Home burial
   - Other ________________________________

Q2. Please rate your agreement with the following statements on a scale of 1-10, 1= strongly disagree, 10 = strongly agree.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Neither agree nor disagree</th>
<th>Strongly agree</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| I felt that my companion animal was in good hands when I left the clinic | |
| I was happy with the aftercare/cremation options provided to me | |
| Aftercare/cremation options were discussed at an appropriate time | |
Q3. Please add any additional comments about aftercare/cremation and memorialization.

### 2.7 EXPECTATION STATEMENTS

Q1. In the context of companion animal euthanasia, please respond to the following statements on a scale of strongly disagree to strongly agree?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I would like it if veterinarians would discuss euthanasia earlier so we can develop a future euthanasia plan</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>2. I wish there was better access to after hour services for euthanasia (e.g. on-call veterinarian)</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>3. I would like it if I could contact my veterinarian with any concerns or questions about my pet's health leading up to euthanasia</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>4. I would like it if I could contact my veterinarian with any concerns or questions about my health (e.g. emotional health)</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>5. I would appreciate veterinary professionals making more of an effort to acknowledge the effects of pet loss</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>6. I would appreciate it if veterinary professionals provided more information/resources on grief and bereavement</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>7. I wish veterinary professionals received better training to assist grieving individuals</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>8. I would like it if the veterinary staff in my clinic asked me about my expectations/needs related to companion animal euthanasia</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>
9. I would like it if the veterinary staff in my clinic asked about my emotions/feeling around euthanasia.

10. I would like it if my veterinary clinics had a social worker/grief counsellor on staff.

11. I wish more veterinary clinics performed euthanasia in people's homes.

<table>
<thead>
<tr>
<th>2.8 SATISFACTION WITH OVERALL EXPERIENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1. On a scale of negative to positive, how would you rank your experience overall?</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Overall, how satisfied were you with your companion animal euthanasia experience:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3.1 GRIEF FOLLOWING EUTHANASIA EXPERIENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1. Please respond to the following statements on a scale of 0-100. 0 = not at all, 100 = to a great extent</td>
</tr>
</tbody>
</table>

| To what extent do you feel your companion animal euthanasia experience impacted your ability to cope with the loss of your pet? |

<table>
<thead>
<tr>
<th>3.2 PET BEREAVEMENT QUESTIONNAIRE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1. Please respond to the following statements on a scale of strongly disagree to strongly agree.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
</table>
I was very upset about my pet's death
My life felt empty without my pet
I felt lonely without my pet
I missed my pet enormously
I cried when I think about my pet
I was very sad about the death of my pet
I'll never get over the loss of my pet

CONCLUSION & PRIZE DRAW

Q1. Do you have any final comments?

Please respond to the following security verification before proceeding.

Please take a moment to complete the information below to be considered for the gift card prize.

Participants are eligible to win 1 of 13 gift card prizes. This will includes 1 of, 2x $200, 3x $100, 4x $50 and 4x $25 gift cards from one of the following vendors of your choice: Amazon, Apple, Indigo or Starbucks

Thank you again for your time!

Sincerely,
Alisha Matte

Please enter the following information.
First name _____________________________________________
Last name _____________________________________________
Email address ___________________________________________