Exploring the Role of Interpersonal Relationships in Equine Veterinary Practice

by

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ABSTRACT

EXPLORING THE ROLE OF INTERPERSONAL RELATIONSHIPS IN EQUINE VETERINARY PRACTICE

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Interpersonal relationships in veterinary medicine have been found to influence the outcomes of veterinary care. Focus group and survey-based methodologies were used to investigate the caretaker-veterinarian relationship in equine veterinary practice, and again used to examine equine referring veterinarian and referral care provider relationships in equine veterinary practice.

A study exploring equine caretaker expectations of equine veterinarians and veterinarians’ perceptions of caretakers’ expectations was conducted through 9 caretaker (n=46) and 4 veterinarian (n=25) focus groups. Six themes were identified: veterinarian-client relationship, veterinarian-client communication, customer service, financial aspects of veterinary care, veterinarian competency, and veterinarian-horse relationship. The two themes addressed in this dissertation are financial aspects of veterinary care and veterinarian-client relationship.

A survey investigating client satisfaction with equine veterinarians (n=1577) found that overall, equine clients are satisfied with the veterinary care they receive with a median satisfaction score of 94.8 out of 100. Increasing client age, client-horse bond, and frequency of use of the veterinarian positively contributed to client satisfaction, while increasing days since the veterinary visit and higher veterinarian perceived age were associated with lower client satisfaction.
satisfaction.

Exploration of referring equine veterinarians’ expectations of equine referral care providers (i.e., specialists) involved 6 referring veterinarian focus groups (n=48). Thematic analysis revealed an overall expectation that referral care act as an extension of the referring veterinarian’s care. This was described as occurring through communication that involved the referring veterinarian in the patient’s care and a collegial referring veterinarian-specialist relationship. The relationship between referring veterinarians and their clients appeared to inform a number of referring veterinarians’ expectations of specialists.

A survey investigating referring veterinarian satisfaction with referral care (n=197) found that mean satisfaction with their most recent referral experience was 75 out of 100. In addition, discrepancies were found between the views of referring veterinarians and the perceptions of specialists (n=87) regarding how referring veterinarians make decisions of where to refer a case and the barriers they face to referral care.

This thesis contributes to the understanding of how relationships in equine veterinary practice can enhance outcomes of veterinary care.
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owe a debt of gratitude to my husband Steven – his kindness, indulgence, and unending support
has been invaluable.
STATEMENT OF WORK

Dr. Colleen Best, under the advisement of and collaboration with Dr. Jason Coe, and through discussion with her advisory committee Drs. Joanne Hewson, Michael Meehan and David Kelton, developed the methodological approach and performed the qualitative and quantitative analysis for the research studies included in this thesis.

Chapter 1: Literature Review

Dr. Colleen Best performed all database searches to find the articles used in this literature review. Carol Tinga provided advice and coaching regarding the structure of the literature review. The literature review was written by Dr. Colleen Best in consultation and under the advisement of Dr. Jason Coe. Additional feedback was received from Drs. Hewson, Meehan and Kelton.

Chapter 2:

Dr. Colleen Best, under the advisement of and in collaboration with Dr. Jason Coe, designed, executed and analyzed the focus groups on which these chapters were based. Dr. Colleen Best was responsible for participant recruitment and logistics for the focus groups. Mai Pham and Amy Grey conducted the focus groups interviews that provided the data for chapters 2 and 3 based on a discussion guide developed by Dr. Colleen Best, in collaboration with Drs Coe, Hewson and Meehan. Dr. Colleen Best performed all transcriptions of the caretaker and veterinarian focus groups, as well as completed the thematic analysis. All client and veterinarian transcripts were coded independently by Dr. Colleen Best and Mrs. Kirstie Deering. The
manuscript was written by Dr. Colleen Best, under the guidance and with feedback provided by Dr. Jason Coe. Drs. Hewson, Meehan and Kelton provided additional input and feedback.

Chapter 3:
Dr. Colleen Best, under the advisement of and in collaboration with Dr. Jason Coe, designed, executed and analyzed the focus groups on which these chapters were based. Dr. Colleen Best was responsible for participant recruitment and logistics for the focus groups. Mai Pham and Amy Grey conducted the focus groups interviews that provided the data for chapters 2 and 3 based on a discussion guide developed by Dr. Colleen Best, in collaboration with Drs Coe, Hewson and Meehan. Dr. Colleen Best performed all transcriptions of the caretaker and veterinarian focus groups. All client and veterinarian transcripts were coded independently by Dr. Colleen Best and by Mrs. Kirstie Deering. The manuscript was written by Dr. Colleen Best, under the guidance and with feedback provided by Dr. Jason Coe. Drs. Hewson, Meehan and Kelton provided additional input and feedback.

Chapter 4:
Dr. Colleen Best developed the survey under the advisement of and in collaboration with Dr. Jason Coe. Drs. Hewson and Meehan provided additional input. The survey was pilot tested by several of Dr. Colleen Best’s equine veterinarian colleagues. Participant recruitment and survey execution was completed by Dr. Colleen Best. Statistical analysis was performed by Dr. Colleen Best in consultation with Dr. Jason Coe, Williams Sears, Department of Population Medicine, and Michelle Edwards, Data Resource Centre. The manuscript was written by Dr. Colleen Best in consultation with and under the advisement of Dr. Jason Coe. Additional input was received
from Drs. Hewson, Meehan and Kelton on the statistical analysis and manuscript.

Chapter 5:
Dr. Colleen Best, in collaboration and conjunction with Dr Jason Coe, designed the study and conducted the analysis described in this chapter. Dr. Colleen Best conducted the focus group interviews that were studied in Chapter 5, a research assistant (Mr. Jeremy Shaba) provided organizational support and provided feedback on the non-verbal cues of participants. A professional transcriptionist transcribed the focus groups. All referring veterinarian transcripts were coded independently by Dr. Colleen Best; then Dr Belinda Black coded 66% of the transcripts using the codebook established by Dr. Colleen Best for inter-rater agreement. The thematic analysis was performed by Dr. Colleen Best, with input from Drs. Coe, Hewson and Meehan. Dr. Colleen Best wrote the manuscript under the advisement and with feedback from Dr. Jason Coe. Additional feedback was provided by Drs Hewson, Meehan, Black, and Kelton.

Chapter 6:
Dr. Colleen Best, in collaboration and under the advisement of Dr. Jason Coe, designed the study described in this chapter. Feedback was provided during item development by Drs Joanne Hewson and equine veterinarian colleagues of Dr. Colleen Best. Participant recruitment and survey implementation was completed by Dr. Colleen Best. Statistical analysis was conducted by Dr Colleen Best under the advisement of Dr. Jason Coe, and with the support of William Sears, Department of Population Medicine, and Michelle Edwards, Data Resource Centre. The manuscript was written by Dr. Colleen Best under the advisement of and in collaboration with Dr. Jason Coe. Additional input was received from Drs. Hewson, Meehan and Kelton on the
statistical analysis and manuscript.

Chapter 7:

Dr. Colleen Best wrote the concluding chapter under the advisement of Dr. Jason Coe.
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Chapter 1

Literature Review, Introduction, Objectives
Introduction

Horses have many roles in today’s society; they are used for recreation, professional sport, and breeding to name a few. Population involvement with horses in Canada is estimated at 850,000 people, and there are 2 million horse owners in the United States of America. This contributes to the significant economic impact of horses in North America, with the annual economic impact of horses in Canada and the United States of America estimated at 19 billion dollars and 39 billion dollars, respectively. Neither the number of people nor the economic impact of horses, however, can truly represent the value of horses to society. Much of the literature regarding the role of animals in today’s society centers on pets (i.e. dogs and cats). Pets are often perceived as cherished family members. While there is no published research that states this is occurring for horses as well, one study found increased numbers of geriatric horses receiving treatment at several referral hospitals. This implies that some horse owners are willing to invest in care for their retired horses, which suggests that they are valued for more than just their ability to perform. Despite the number of individuals involved with horses, their economic impact, and their role in society, horses remain a less explored subject than companion animals with respect to veterinarian-client relationships.

There have been decades of attention paid to the interpersonal relationships that develop in human healthcare, beginning with the doctor-patient relationship. More recent research in human medicine has incorporated other professional relationships and led to the development of the model of relationship-centered care. As veterinary medicine often parallels human medicine, the interest and research in veterinarian-client relationships and communication has grown. So far, investigation has centered on companion animal veterinary medicine. The demonstrated importance of interpersonal relationships in human and companion animal
medicine would suggest that investigation of the role and impact of interpersonal relationships in equine veterinary medicine would be valuable.

**Literature Review**

This literature review covers a range of topics that pertain to relationship-centered care in human and veterinary medicine, as well as the patient or client experience of care. First, the model of relationship-centered care as a paradigm of care will be explored in both human and veterinary medicine. Within this exploration will be an account of the research pertaining to two dimensions of relationship-centered care: the doctor-patient or veterinarian-client relationship and the physician-colleague or veterinarian-colleague relationship. Secondly, an account of the literature regarding patient and client expectations of healthcare will be described. Following this will be a section describing patient and client satisfaction with care, as this ties both into expectations and the way in which care is provided. Finally, the literature regarding the qualitative and quantitative research methodologies performed in this thesis, namely thematic analysis and survey methodology, will be explored.

**1. Relationship-Centered Care**

**1.1 Relationship-Centered Care in Human Medicine**

Relationship-centered care is a paradigm for care in human healthcare. Its foundation is the assertion that relationships in healthcare are valuable and unique, and it posits that these relationships form the scaffold for high quality care, and influence the success and culture of the workplace. Relationship-centered care is a human healthcare model that has grown from previous frameworks for care including the biopsychosocial model and patient-centered care; the
importance of an individual’s experience of illness and disease, as well as the way in which multiple factors interact to influence one’s health, is central in these approaches.\textsuperscript{3,4,10} The biopsychosocial model proposes that multiple factors interact to influence one’s health, and describes how the patient’s wellbeing is influenced by mental and physical factors.\textsuperscript{10,11} The practical application of the biopsychosocial model for physicians was a shift to practice in a way that was inclusive of the patient in their clinical process, such as a focus on the patient’s unique experiences, the development of trust with the patient, empathetic curiosity, and providing information in a way the patient can understand.\textsuperscript{10,11} Similarly, the patient-centered method emphasizes the relationship between patient and physician, and the physician’s focus on attending to the unique needs of a given patient.\textsuperscript{3}

Extending from these earlier frameworks, relationship-centered care is built on four principles:\textsuperscript{12}

1. Relationships should honour the individuality of those in the relationship, as well as the role they possess.
2. Affect and emotion are valuable components of relationships.
3. There is a reciprocal interaction whereby each party is affected and affects the other (i.e., there is a circular influence between the relationship participants).
4. There is a moral foundation to the development of the relationships.

There are four types of relationships considered to be the cornerstones of relationship-centered health care in human medicine: clinician-patient, clinician-colleague, clinician-community, and clinician-self.\textsuperscript{5} The clinician-patient relationship is by far the most deeply explored, however, recent interest and research has also been directed towards the clinician-colleague relationship.\textsuperscript{5,13-18}
1.2 Relationship-Centered Care in Veterinary Medicine

In veterinary medicine, Shaw\textsuperscript{19} defined relationship-centered care as a partnership between veterinarian and client that allows the provision of high quality care to the animal. In this thesis, the roles of multiple relationships within veterinary patient care are examined and the model of relationship-centered care used will be that of human medicine. Two of the four types of relationships from human medicine will be considered: veterinarian-client and veterinarian-colleague. In veterinary medicine there is an added complexity because the patient is not the client. The veterinarian-patient relationship should also be considered as a relationship within relationship-centered care in veterinary medicine, making the third relationship considered in this thesis. The relationships between a veterinarian and the community and a veterinarian with his or herself are beyond the scope of this thesis.

The College of Veterinarians of Ontario (CVO) considers the veterinarian-client-patient relationship (VCPR) an essential relationship through which care for the animal is provided.\textsuperscript{c} Further, the CVO has determined that a valid VCPR must be developed prior to a veterinarian providing medications to an animal or herd.\textsuperscript{c} The position of the American Veterinary Medical Association\textsuperscript{d} is closely aligned with that of the CVO with respect to the importance and purpose of the VCPR, and adds that a VCPR is “the best thing for the animal’s health.” Indeed, the veterinarian-client relationship, specifically the communication that occurs between them, has been researched in the past decade, and found to be an important factor in the eyes of clients\textsuperscript{e} and to influence client and patient outcomes, including client satisfaction\textsuperscript{e} and adherence to recommendations.\textsuperscript{20}

While exploration of interpersonal relationships in veterinary medicine has begun, it is still in the early stages. More research focused on the relationships across all veterinary contexts,
including equine medicine, is needed to support high quality care being provided to clients and patients.

1.3 Physician-Patient Relationship

The doctor-patient relationship is the most well explored dimension of relationship-centered care.\(^4,^{11,21-25}\) The doctor-patient relationship is the arena in which the patient’s history is gathered, plans for care are made, information is shared, recommendations are made, and comfort and support are provided.\(^26\) The relationship between physician and patient can impact patient health outcomes directly and indirectly.\(^27\) Specifically, research and literature reviews have found that relationship traits of trust, communication, empathy, warmth and openness are associated with positive care outcomes, including adherence to recommendations, patient satisfaction, and symptom and functional improvement.\(^23-25,28-34\)

Physician-patient relationships and communication have been hypothesized to influence care through a number of mechanisms which include facilitating the provision of care, educating and enhancing the patient’s knowledge of his or her health, developing a therapeutic partnership between physician and patient, supporting the patient’s coping strategies and management of emotions, and enhancing a patient’s feeling of empowerment.\(^27\) In a review of the physician-patient communication literature by Stewart\(^34\) the communication that occurred in the history-taking and management portions of a clinical interaction were found to influence patient health outcomes. Health outcomes associated with good history-taking communication included emotional status, symptom resolution, and physiologic measures.\(^34\) The physician-patient relationship has been shown to influence what care patients receive through its effect on the balance of decision-making between doctor and patient. Patients vary in their role preferences (i.e. active, passive, shared) regarding health care decisions; these preferences have been
associated with patient factors, such as health status, age, and education level in a literature review, as well as strength of the relationship with physician and the trust the patient has in the physician.

The research that has been done in human medicine can be used to suggest avenues of investigation in veterinary medicine, and supports the current evidence in veterinary medicine that the veterinarian-client relationship is important to both clients and veterinarians.

1.4 Veterinarian-Client Relationship

In the past decade researchers have begun to investigate the veterinarian-client relationship. This has predominantly focused on veterinarian-client communication. Initial explorations of veterinarian-client communications described the communication composition of companion animal appointments by looking at 300-videotaped appointments of 50 different companion animal veterinarians. Veterinarians dominated veterinarian-client communication, supplying 62% of the conversation, while clients contributed only 38%. Most of the veterinarian’s conversation was devoted to providing the client with information and the least amount of time was spent gathering information. The manner or style of communication companion animal veterinarians employ has also been investigated, using the same study population as Shaw et al. Biomedical communication styles were more likely to be used in appointments where there was a specific medical problem being assessed whereas biolifestyle-social communication patterns were more common in wellness or routine appointments. Appointments in which a biolifestyle-social communication pattern was used were shorter than biomedical appointments and had an average ratio of 1.1:1 client-centered talk to veterinarian-centered talk. Further, when wellness appointments were compared to appointments in which there was a health problem, there was more lifestyle information gathered about the pet, talk
directed towards the pet, and the emotional tone of the interaction was more relaxed in the
wellness appointments. Another report identified that female veterinarians were more likely to
conduct relationship-centered appointments, provide positive and rapport-building statements,
direct more talk towards the pet, and were perceived to be less hurried than their male
counterparts. These studies shed light on the current state of veterinarian-client communication
and provide insight into how communication can be affected by the context of the appointment.

Communication about the costs of veterinary care has also been investigated. Research has revealed an overall paucity of conversations regarding cost in companion medicine with only 29% of 200 veterinarian-client interactions including a discussion of cost and 66% of those cost discussions pertained strictly to the cost of the veterinarian’s time or services.

Investigations have been conducted into the use of specific communication skills, namely empathy and open-ended questions. The use of empathy has been explored in companion animal practice in several studies. Shaw et al reported that 7% (n=200) of companion animal appointments involved an empathy statement whereas McArthur and Fitzgerald reported that 41% of appointments (n=64) involved an empathy statement, but 73% of those statements were directed to the pet. These findings would suggest that empathy is an infrequently used communication skill. Further, it is important to recognize that the use of empathy impacted clients; McArthur and Fitzgerald found that clients were more satisfied in appointments where empathy was used.

In a study analyzing solicitation of client’s concerns at the start of an appointment, 37% (n=334) appointments included a question from the veterinarian to explore the client’s concerns; of those questions 76% were open-ended and 24% were closed-ended. Dysart et al also found that veterinarians interrupted clients’ responses 55% of the time, and the median time client’s
spoke prior to interruption was eleven seconds. This study demonstrates that while clients were
provided with the opportunity to share their concerns, more often than not, they were prevented
from finishing their response. This indicates that soliciting clients’ concerns is an area in which
veterinarians could seek to improve.

Research in companion animal medicine has also investigated specific topics of
veterinarian-client communications including euthanasia and recommendations for care.
Communication regarding euthanasia was investigated through an instrument adapted from
human medicine that assessed the veterinarian’s client-centeredness; the investigators employed
two different appointments (i.e., clinical cases) with simulated clients that were unknown to the
study participants in order to evaluate how well the veterinarian found common ground with the
client, understood the whole person, and investigated the disease and illness perspective.
Veterinarians’ scores in these areas differed based on the clinical case with which they were
presented, and that overall, veterinarians’ scores investigated the disease and illness perspective
least effectively of the three criteria.

Lue et al has shown that the communication that takes place between veterinarian and
client impacts the strength of the relationship between veterinarian and client as well as the
client’s adherence to recommendations. The strength of the veterinarian-client relationship was
also been found to influence client loyalty. Kanji et al similarly investigated the impact of
veterinarian-client-patient interactions on client adherence to recommendations and found only
30% of clients (n=83) adhered to the veterinarian’s dental or surgical recommendations in the 6
months that followed the appointment in which the recommendation was made. When the
veterinarian provided the client with a clear recommendation the odds the client would adhere to
the recommendation increased by seven times compared to an ambiguous recommendation.
Further, clients who adhered to the veterinarian’s recommendation were more satisfied with their encounter, and the appointments that resulted in adherence were scored more highly on a measure of relationship-centered care.\textsuperscript{20} Similarly a report by the American Animal Hospital Association\textsuperscript{46} also found that effective communication was positively correlated with client adherence to medication recommendations for their pet.

Considerably less research has been conducted in equine veterinary medicine. Commentaries have described a relationship between effective veterinarian-client communication and decreased malpractice risk.\textsuperscript{47,48} Blach\textsuperscript{49} conducted a survey of clients registered with the American Association of Equine Practitioner’s (AAEP) Owner Education Program. The results of the study indicate the top criteria clients considered when selecting an equine veterinarian were:

1. Competence in veterinary skills.
2. How your horses are handled.
4. Communication with clients.

A 2013 marketing study\textsuperscript{f} conducted by the AAEP provides insight into the relationship between equine veterinarians and clients. Forty-three percent of respondents (n=6148) agreed with the statement “the veterinarian is a good friend of mine”,\textsuperscript{f} this seems to emphasize the importance of the veterinarian-client relationship in equine veterinary medicine. Further, 55% of respondents indicated they had used the same veterinarian for at least six years, with the average respondent having used their veterinarian for nine years.\textsuperscript{f} Whether a strong veterinarian-client relationship contributes to client loyalty in equine practice, as has been reported in companion animal medicine,\textsuperscript{46} is unknown at this point.
As evidenced by research in the field of companion animal medicine, the veterinarian-client relationship is meaningful to clients, and has the potential to impact outcomes of care. As such, research that investigates the needs of equine clients regarding the veterinarian-client relationship, and how the equine veterinarian-client relationship may impact the outcomes of care, has the potential to provide important information about how to best work with equine clients.

1.5 Clinician-Colleague Relationships in Human Medicine

Within the model of relationship-centered care, clinician-colleague relationships are described in the model of relationship-centered care to be an integral dimension of healthcare quality; however, there is relatively little research in this area when compared to the physician-patient relationship. Research has investigated patient referral and the interactions that exist between general practitioners and specialists. Whether or not a patient’s care involves referral or treatment by a specialist, and if so, when in the course of their disease they are referred, has been shown to impact health outcomes. Further, problems with care coordination between the surgeon and rehabilitation services and/or home care agencies have been shown to impact patient outcomes, such as greater joint pain and lower functioning, following knee-replacement surgery. A systematic review of literature exploring formal liaisons between primary care physicians and specialists concluded that when general practitioners and specialists had formal liaisons the following improved: patient concordance, patient satisfaction, the selective use of resources during the diagnostic and treatment process, and in chronically mentally ill patients, the functional outcome improved. Primary care physicians have been found to be more likely to refer patients with conditions they see infrequently. In 2002, Forrest et al reported that 86% of all referrals (n=2534) were to a
specific specialist known to the physician. The most common reason for selecting a particular specialist was the referring physician’s personal knowledge of the specialist.\textsuperscript{54} Several typologies of patient referral have been described by Forrest\textsuperscript{55}; these included: cognitive consultation, procedural consultation, co-manager with shared care, co-manager with principal care, and primary care physician. These typologies represent different levels of involvement and responsibilities of the specialist for the referred patient. These typologies draw attention to the diversity of models that exist in referral care.

A review of the patient referral research highlighted the need for care integration, defined as the referring physician and the specialist agreeing on the specialist’s role and how the patient was to be managed, and concluded that primary-specialty care is not currently integrated well in human medicine.\textsuperscript{56} The need for effective communication and an understanding of roles and responsibilities has been found to be crucial for interdisciplinary health teams to deliver patient-centered care, as determined by a qualitative study.\textsuperscript{57} Physician satisfaction with the specialty to which they refer influenced the likelihood of patient referral.\textsuperscript{58} Berendsen et al\textsuperscript{59} found that shared responsibility and care for the patient were crucial elements of collaboration between physician and specialist. Etesse et al\textsuperscript{60} found that primary drivers of referring physician dissatisfaction were lack of information provided at the time of patient admission and discharge and how the patient and their family were treated. Factors that increased referring physician satisfaction were inclusion in decision-making,\textsuperscript{60} being telephoned when the patient was admitted,\textsuperscript{60} and feedback from the specialist following the referral.\textsuperscript{9} A study of 623 primary care physicians determined the factors that influence a referring physician’s selection of a specialist including: “Medical skill, appointment timeliness, insurance coverage, previous experience with the specialist, quality of specialist communication, specialist efforts to return patient to primary
care physician for care, and the likelihood of good patient-specialist rapport. A recent study of relationship traits that were important to rheumatologists (n=56) regarding their relationship with family physicians found that communication and information exchange were most important, followed by a defined and suitable delegation of responsibilities. Two studies investigating specialist and primary care physicians’ perceptions of the communication between them found significant gaps in perception, with both parties believing they send information more often and in a more timely fashion than the other reports receiving it.

Many of the studies that have investigated clinician-colleague relationships focus on the effectiveness of a team or workforce within a single organization, as opposed to individual interpersonal relationships or relationships between individuals from different organizations, as would occur in healthcare referral situations. Studies investigating organizational culture and healthcare teams have identified a number of positive outcomes of high quality teams including reduced mortality, improved functional health outcomes, shorter length of stay, improved workforce morale, and decreased burnout. Recent research at 913 Veteran’s Health Administration hospital-based and community-based primary care clinics has found that a team-centered approach to care provision is associated with increased patient satisfaction, improved clinical quality, and lower hospitalization rates for patients. One of the strategies used to investigate team effectiveness and inter-organizational collaboration is to measure the relational coordination of a team. Relational coordination is a theory that describes how communication and relationships between individuals mutually reinforce each other when individuals are carrying out interdependent tasks. There are three relationship dimensions of relational coordination, shared goals, shared knowledge and mutual respect, and four communication dimensions which support frequent, timely, accurate, and problem solving communication.
When these occur, the framework is laid for teams to function at their best.69

The importance and impact of clinician-colleague relationships and team effectiveness in human medicine has been demonstrated in the literature. Given the similarities between the human and veterinary medical professions, research investigating veterinarian-colleague relationships could prove beneficial to the veterinary industry.

1.6 Veterinarian-Colleague Relationships in Veterinary Medicine

Similar to human medicine, there is a paucity of research investigating the relationships veterinarians have with their colleagues. Towell et al70 explored companion animal referring veterinarians’ (rDVM) experiences and veterinary teaching hospital (VTH) veterinarians’ perceptions regarding nutritional product recommendations at 10 colleges of veterinary medicine in the United States. This study reported differences between rDVM and VTH veterinarians’ perceptions regarding the timeliness of receiving and sending discharge statements, respectively, as well as whether there was verbal communication between rDVM and VTH veterinarian at the time of patient discharge. VTH veterinarians reported sending discharge statements earlier than rDVMs reported receiving them, and VTH veterinarians indicated having more verbal communication following the patient’s discharge than rDVMs identified.70 Further, rDVMs desired more nutritional product recommendations than VTH veterinarians perceived they desired.70

A recent study at the VTH at the University of Prince Edward Island (Charlottetown, Prince Edward Island, Canada) investigated rDVM satisfaction with referrals using survey methodology.8 Overall, 70% of rDVMs (n=79) were satisfied with their referral experience. Factors that were associated with dissatisfaction were discharge statements that were not timely, inaccurate or never sent, communication difficulties, and not receiving patient updates during the
time the patient was at the VTH. Another study investigated factors that influence a veterinarian’s willingness to refer patients for treatment of osteosarcoma and lymphoma through a survey of companion animal practitioners in Ontario, Canada. Patient referral was associated with a patient-related factor (i.e. health status) and client-related factors (i.e. bond with pet and financial status) as well as veterinarian-related factors including confidence in the referral centre, value placed on treatment, and experience treating cancer.

In addition, rDVM experiences with the small and large veterinary teaching hospitals at Michigan State University have been reported in two staff papers. In companion animal practice, the areas that rDVMs most desired improvement in were (1) making appointments easier to obtain, (2) improving communication, and (3) a new phone system. The top three areas in which equine rDVMs desired improvement were improving communication, respect for rDVM, and out-of-hours access to the VTH.

Over the past decade, several commentaries have addressed the referral process in veterinary medicine. These commentaries emphasize the need for communication and collegiality between rDVMs and specialists, as well as respect for the other throughout the referral process. Block and Ross provide guidance and suggestions, many of which centered around communication, for how rDVMs and specialists could interact with each other in a collegial fashion based on the findings of a working group comprised of rDVMs, academicians, board-certified specialists, and administrators. Further, a commentary by Burrows describes how the University of Florida’s Small Animal VTH met the needs of its rDVMs using referral liaisons (i.e. staff dedicated to interacting with and building relationships with rDVMs). The author also described the expectations of rDVMs and how referral practices can meet them and again, communication was emphasized.
Moore\textsuperscript{,76} has investigated team dynamics in veterinary medicine. A focus group study investigated veterinarian and veterinary staff needs regarding communication, leadership, and coordination.\textsuperscript{,7} Communication was described as the medium through which coordination and leadership were enacted. The importance of leadership through involvement with the staff, providing feedback, and delegation of tasks was also highlighted.\textsuperscript{,7} Following the qualitative study of veterinarians and veterinary teams, a survey (n=274) was conducted to investigate the outcomes of veterinary team effectiveness.\textsuperscript{76} A positive association was found between a coordinated team environment and an individual’s feeling that they can perform their job, whereas there was a negative association between a coordinated team environment and cynicism.\textsuperscript{76} Due to the lack of information linking team effectiveness to client or patient outcomes, this is an important area for future investigation.

As with the other domains of relationship-centered care, the current research that has been conducted on veterinarian-colleague relationships identifies this as an important field of study. Equine veterinary medicine is a relatively small field compared to companion animal medicine, and as such, the relationships veterinarians have with their colleagues may have a greater impact during the referral process; the stakes at play are higher to avoid tensions within the veterinarian-colleague relationship because they have fewer choices of whom to work with.

2. Patient and Client Expectations of Care

2.1 Expectations in Human Healthcare

Research exploring patients’ expectations of healthcare has received increasing attention over the past few decades.\textsuperscript{77-81} This dissertation and literature review will focus on value expectations defined by Kravitz \textit{et al}\textsuperscript{77} as a belief, desire, hope, or want about what will occur in
the physician-patient interaction. The meeting of patients’ expectations has been proposed as a goal unto itself in healthcare. Met patient expectations have been positively associated with adherence to recommendations, symptom resolution, physician satisfaction and patient satisfaction, and negatively associated with malpractice risk. Interestingly, patients with high expectations of orthopaedic surgery were found to have improved quality of life and satisfaction with treatment outcomes. McGregor et al found an unexplained association between patients’ surgical expectations of pain resolution and health status, and patient satisfaction with improvement achieved at six months and one year post-operatively. Patients expected better outcomes of surgery than were achieved, however their satisfaction with their post-surgical improvement was high. The authors suggested that patients’ unmet expectations led to disappointment, not dissatisfaction. Investigating and meeting patient expectations also enhances partnership between physician and patient because it encourages patient education and discussions regarding treatment plans. Bowling suggested that the benefit of a physician’s awareness of patient expectations is an increased understanding of the patient’s position and situation, as well as an improved ability to communicate effectively with the patient. Kravitz et al suggested a patient’s previsit expectations influence the requests they make of their physician. Request fulfillment was correlated with increased patient ratings of the interaction, symptom improvement, fewer health concerns, and increased physician satisfaction. Further, patients’ expectations of physicians and physician-patient interactions have been demonstrated to influence the type of care the patient receives, as well as the patient’s attitudes towards the physician.

2.2 Expectations in Veterinary Medicine

Two studies demonstrated that veterinarians may misperceive clients’ expectations and
this has been shown to impact the care options veterinarians provide to their clients. Coe et al. looked at value expectations of companion animal pet owners using qualitative research methods. One of the reports described pet owners’ expectation that veterinarians discuss the costs of veterinary care with them, and also that these cost discussions helped decrease their suspicion about a veterinarian’s motives behind recommendations for care. Further, there was a difference in how pet owners and veterinarians related to their discussions of the costs of veterinary care during the study. Pet owners described wanting costs to be discussed in relation to the health benefit to their pet, whereas veterinarians tended to discuss the tangible reasons that dictated the cost of a procedure including their time and the services they provided. These differences are of importance because they allude to a potential barrier to communication and partnership as veterinarians and pet owners appeared to have difference in their perception of value. Pet owners’ expectations of veterinarian-client communication were also explored; pet owners expect two-way communication in which both the veterinarian and client contribute to the conversation. Further, pet owners want to be provided with options for their pets’ care as well as education. Coe et al. suggested that breakdowns in veterinarian-client communication could negatively impact the relationship between veterinarian and client.

A recent study investigated the information expectations of dog-owning clients who brought their dogs to a referral cancer care center. This study identified accurate and truthful information to be the primary expectation; clients also had high expectations for the amount of information they received, desiring information that covered much of the animal’s condition and what they could expect through the course of therapy. In turn, this was believed to contribute to trust between the client and the veterinarian, promoted self-efficacy of the client, and allowed for shared decision-making. Clients also desired that the information provided to them be tailored to
the information they already possessed and their previous experiences.\textsuperscript{88}

In equine veterinary medicine, this topic has been less well explored. An investigation of the expectations of owners of top level sport horses in the Netherlands found that owners expected veterinarians to be familiar with treating sport horses.\textsuperscript{89} Given the importance of expectations to both human healthcare patients and companion animal veterinary clients alike, exploring equine clients’ expectations of veterinary care is likely to yield important information that can assist veterinarians in working with clients and in providing their patients with appropriate care.

3. Patient and Client Satisfaction with Care

3.1 Patient Satisfaction with Healthcare

The shift towards patient and relationship-centered care in human healthcare has led to increased recognition of the importance of the patient experience. Patient satisfaction has been used as a measure of patient experience. The evaluation of patient satisfaction is common in human healthcare,\textsuperscript{90} and is considered by some to be an important measure of healthcare quality.\textsuperscript{91-94} Patient satisfaction has been conceptualized as “the degree to which a patient feels they have received high-quality care”.\textsuperscript{91} The association between patient satisfaction and healthcare outcomes has been investigated; patient dissatisfaction is associated with intentional non-adherence\textsuperscript{95} and malpractice risk,\textsuperscript{78,96,97} while patient satisfaction has been positively correlated with patient loyalty.\textsuperscript{98,99} The factors that contribute positively to patient satisfaction include met patient expectations,\textsuperscript{28,100} continuity of care,\textsuperscript{28} agreement with respect to the physician’s role,\textsuperscript{101} physician-patient communication,\textsuperscript{102} health status,\textsuperscript{93,102} physician traits of openness and conscientiousness,\textsuperscript{31} patient age,\textsuperscript{80} physician’s provision of information,\textsuperscript{102} and the
use of a patient-centered care approach. The research that has been done in human medicine identifies patient satisfaction as an important metric of health care quality, and as such, there is likely value in investigating the concept of client satisfaction in veterinary medicine.

3.2 Client Satisfaction with Veterinary Care

There are few studies reported in the peer-reviewed scientific literature about client satisfaction in veterinary medicine. The importance of client satisfaction as a measure has been demonstrated by Chamla and Crouch who reported that client satisfaction is a major reason clients continue to use a veterinarian. Coe et al suggests that client satisfaction is an important aspect of veterinary practice, which is further supported by the finding by Kanji et al that clients who adhered to recommendations were more satisfied. Loomans et al investigated horse owner, team coach, and team veterinarian experiences and satisfaction with top equine sports medicine in the Netherlands. High scores for client satisfaction with professional equine veterinary skills were found overall.

Two client satisfaction measures have been tested and validated in companion animal medicine. The Veterinary Service Satisfaction Questionnaire surveyed clients’ opinions of “general services, staff communication, vet communication, death of pet, and vet technical abilities”; results of the study found that clients were satisfied with the components of care measured by the study. Coe et al used focus group data regarding pet owner expectations to construct an appointment-specific client satisfaction instrument; again, the findings show that clients were highly satisfied with the veterinary interaction. The areas in which clients were least satisfied included discussions of cost and how well the client understood the costs. In companion animal medicine, veterinarian gender, type of visit (i.e., problem or wellness), client gender, and client age have been found to influence client satisfaction.
The importance of client satisfaction in companion animal medicine has been demonstrated through research, as have several of the determinants of client satisfaction; this information allows veterinarians to provide care that better meets the needs and expectations of companion animal clients. There is a need to gain a similar understanding in equine veterinary medicine, such that equine veterinarians have the knowledge to provide clients with the type of care they desire and build lasting veterinarian-client relationships.

4. Research Methodologies

This thesis used both qualitative and quantitative methodologies to meet its objectives. Qualitative research is an effective and commonly used way of attaining data that pertains to experiences in the lives of people whereas quantitative methodology uses probability sampling and statistical inference. Qualitative methodology allows for an exploration of an area in which there is little existing data, and commonly yields a deep understanding of the issue. The data resulting from qualitative research take the form of participants’ words, in contrast to the numbers provided by quantitative research. The purpose of quantitative research is often to test a theory deductively, and statistical analysis is performed to answer the research questions. The use of mixed methods combines the strengths of qualitative and quantitative methodology, while decreasing the impact of the weaknesses. It also allows for the triangulation of results.

4.1 Focus groups

Semi-structured group interviews, often referred to as focus groups, are a method that can be used to explore the experiences of participants, and allow for both the moderator and the participants to guide the direction of the discussion. In comparison to individual interviews, focus groups provide an added dimension of interaction because participants may interact with
each other,\textsuperscript{110} this contributes to the richness of the data because it generates a more participant focused conversation. In a medical context, focus groups facilitate the exploration of social experiences and contexts that contribute to individuals’ experiences and knowledge of healthcare.\textsuperscript{110} The role of the moderator is to guide the discussion, to listen to what is being said, and engage all participants in the discussion, while refraining from contributing to or shaping the outcome of the interview in any way.\textsuperscript{110} Focus groups have been employed in veterinary medicine in a variety of contexts, such as to explore pet owner expectations of companion animal veterinarians,\textsuperscript{44,87} veterinary team effectiveness,\textsuperscript{1} veterinary student experiences with veterinary school curricula,\textsuperscript{112} and for exploring veterinarians’ thoughts and experiences with continuing education.\textsuperscript{113}

4.2 Thematic analysis

Thematic analysis, a recognized method for analyzing qualitative data, permits the investigation of trends, subtle variations, and similarities in participant responses.\textsuperscript{114} The process involves line-by-line coding of the data, collation of codes representing similar ideas and concepts, and then the defining of themes (i.e., “patterned response or meaning within the data set”).\textsuperscript{114} Thematic analysis can be employed from an inductive or deductive approach.\textsuperscript{115} In this dissertation an inductive approach was used. The use of thematic analysis and qualitative research has gained acceptance in human\textsuperscript{22,116,117} and veterinary research\textsuperscript{1,88}, and increasing numbers of studies using these methodologies are found in the literature. Cohen and Crabtree\textsuperscript{118} propose the following as ways to determine the reliability and validity of qualitative research: the provision of a rich account of the evidence upon which inferences and conclusions are based and triangulation with other data sources. Inter-coder reliability is another way to determine the validity of the coding scheme,\textsuperscript{119} and to a certain extent, agreement regarding the content of the
transcripts. In this thesis, a second coder used the codebook established by the author to review participant transcripts. The coded transcripts were then compared, differences in codes were discussed, and if agreement could not be reached, the difference was deemed to be a true disagreement.\textsuperscript{119}

4.3 Survey Methodology

Surveys or questionnaires are frequently used data collection tools in veterinary epidemiological research.\textsuperscript{120} Quantitative surveys are designed to capture specific information about the participants\textsuperscript{120} as determined by the researcher’s interests. Quantitative methodology also seeks to gather data that is unbiased, and which is a representative subset of a larger population,\textsuperscript{121} such that the findings of the study are likely to be true not only for the studied population (internal validity), but for the larger population as well (external validity).\textsuperscript{120} The use of focus group data to guide the development of questionnaire content has been promoted as a way to ensure face and content validity of the questionnaire.\textsuperscript{122} The use of internet-based surveys has a number of advantages, namely access to a large audience without the cost associated with traditional methods, such as phone calls or mailings, and speed of return.\textsuperscript{122} Disadvantages of using internet recruitment strategies include inability to determine a response rate, the possibility that individuals may participate more than one time, and the perception that data could be traced back to the respondent.\textsuperscript{122}

Thesis Objectives

In an effort to understand the needs and expectations of clients and referring veterinarians, the focus of inquiry for this thesis lies in two specific areas. The first two objectives of this thesis were aimed at clarifying what clients need and expect from primary-care
equine veterinarians and comparing this with primary-care veterinarians’ perceptions of equine caretakers’ expectations. Objectives three and four explored the needs and expectations of equine referring primary-care veterinarians of specialists and referral care. In summary, the primary objectives were:

1. To qualitatively explore and differentiate veterinary clients’ expectations of equine veterinarians and equine veterinarians’ perceptions of clients’ expectations (Chapters 2 and 3) in order to:
   a. Identify areas of difference in clients’ expectations and veterinarians’ perceptions

2. To quantitatively investigate and measure equine clients’ satisfaction with equine veterinarians (Chapter 4) in order to:
   a. Support the findings of the qualitative study
   b. Develop a tool to be used to measure equine client satisfaction
   c. Identify factors associated with equine clients’ satisfaction with equine veterinarians

3. To qualitatively explore equine referring veterinarians’ expectations of veterinary specialists and referral care (Chapter 5)

4. To quantitatively investigate referring veterinarians’ satisfaction with specialists and referral care (Chapter 6) in order to:
   a. Support the findings of the qualitative study
   b. Identify factors contributing to rDVM satisfaction
Footnotes


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Chapter 2

A focus group study of equine caretakers’ and veterinarians’ perceptions of the financial aspects of equine veterinary care

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Abstract

Objective – To explore caretakers’ expectations of equine veterinarians and equine veterinarians’ perceptions of caretakers’ expectations of the financial aspects of equine veterinary care.

Design – Focus group interviews.

Participants – 9 equine caretaker focus groups (46 caretakers) and 4 veterinarian focus groups (25 veterinarians).

Procedures – Focus groups were conducted independently using standardized discussion guides consisting of open-ended questions and follow up probes. Thematic analysis was performed on the resulting data.

Results – Caretakers wanted veterinarians to discuss the costs of care in an upfront matter. They also expressed a desire for veterinarians to have knowledge of their unique situation, including an understanding and respect for their financial circumstances. Caretakers spoke about how cost discussions provided information that assisted their decision-making. A primary consideration in caretakers’ decision making was the relationship they had with their horse. Caretakers wanted the care of the horse to be the veterinarian’s first priority, and for financial interests to be secondary. Equine veterinarians reported that discussing invoices or payment with clients was challenging due to feelings of discomfort.

Conclusions – Engaging equine clients in conversations about the financial aspects of veterinary care is important, including the client’s individual circumstances, expectations, and needs of veterinary care. More effectively managing the financial aspects of veterinary care is likely to contribute to veterinarians’ ability to provide high quality patient care and to build strong relationships with clients.
1. Introduction

Clients’ expectations of equine veterinarians and veterinarian-client interactions remain largely unexplored in equine veterinary practice. In comparison, research in companion animal medicine has investigated various components of veterinarian-client interactions and client expectations [1-8]. It has been shown that the veterinarian-client relationship in companion-animal practice influences client satisfaction [a], veterinarian satisfaction [9], as well as client adherence [6]. It is reasonable to believe that similar associations may exist in equine practice. The importance of patient expectations has been clearly demonstrated in human medicine, where unmet expectations have been negatively associated with patient satisfaction, weaker intention to adhere to recommendations, and less symptom improvement [10]. Research has demonstrated that veterinarians, at times, misperceive their clients’ goals and expectations of the veterinarian-client interaction [1,11]. A specific area of difference identified between companion animal veterinarians and pet owners leading to possible contention has been a difference in perception of value of the cost of veterinary care [5]. Pet owners wanted to discuss costs of care in the context of the health and wellbeing of their pet [5]. In contrast, veterinarians spoke about cost with respect to the time investment and the service they provided to their clients [5,12]. This disparity between clients’ expectation and veterinarians’ perception may represent a difference in how veterinarians and clients conceptualize the value of veterinary care. Misaligned clients’ expectations and veterinarians’ perceptions have also been found in relation to the clients’ interest in providing the best possible care for their companion animal [13], and the perceived impact of the clients’ economic resources on the offering of services by veterinarians [11,13]. These differences between clients’ expectations and veterinarians’ perceptions of those expectations could result in the veterinarian providing the client with fewer options, and
subsequently the pet possibly receiving suboptimal care.

The current understanding of clients’ expectations of equine veterinary care is limited to two studies conducted by the American Association of Equine Practitioners (AAEP) [14,b]. The first study, conducted via online survey of individuals enrolled in the AAEP Owner Education Program, explored criteria by which clients selected equine veterinarians [14]. The top four criteria used by clients to choose veterinarians were “veterinary competency”, “horse handling”, “doctor performance” and “communication with clients” [14]. The second study conducted by the AAEP in 2013 explored horse owners and trainers perceptions of equine veterinarians, and demonstrated the importance of the veterinarian-client relationship. Forty-three percent of the 6148 participating clients agreed with a statement that their primary veterinarian was “a good friend of mine” [b]. Recognizing the value clients place on their relationship with their veterinarian, investigating equine clients’ expectations and equine veterinarians’ perceptions may identify gaps that exist within this relationship. This will position the equine veterinary profession with the knowledge and understanding to manage clients’ expectations more effectively and ultimately optimize patient care.

Given the paucity of research into equine veterinary-client relationships, a qualitative method was used because it allows an inductive exploration into this unique relationship. Focus groups are a methodology that allows for a deeper exploration of an area about which not much is known compared to that which could be ascertained through a structured survey. Veterinary and human medical research has used focus groups to gain a greater understanding of the client and patient perspective, respectively, and then used this information to guide and improve interventions [3,5,15,16]. One of the strengths of focus group research is that it examines, in depth, the opinions, experiences, and views of participants, and allows for an understanding of
motivations to be developed [15]. Qualitative analysis of focus group data involves analyzing the group discussions to gain a greater appreciation of the topic of focus, to uncover connections and identify complex dimensions in participants’ responses [5,17].

The findings reported here represent one part of a larger study for which the objective was to gather a more comprehensive understanding of the needs and expectations of equine caretakers, as well as equine veterinarians’ perceptions of their clients’ expectations. The present report discusses findings that relate to caretakers’ expectations and veterinarians’ perception of clients’ expectations regarding the financial aspects of veterinary care. The findings also identify challenges specific to the financial aspects of veterinary care that are faced by equine veterinarians in working with their clients.

2. Materials and Methods

The study protocol was reviewed and approved by the University of Guelph Research Ethics Board (REB12JA019).

2.1 Study Design

The study consisted of 9 caretaker focus groups involving 3 equine industry sectors; racing (3), performance (3) and pleasure (3), as well as 4 independent equine veterinarian focus groups, involving groups of 100% equine practitioners (2) and mixed animal practitioners practicing equine medicine between 15 and 90% of their time (2). For the purpose of this study, a caretaker was defined as a person responsible for arranging and managing veterinary care for a horse by a veterinarian (e.g., owner, barn manager, trainer, groom). Racehorse caretakers were defined as individuals involved with actively racing horses (Standardbred, Thoroughbred and/or Quarter Horse) or race horses on layup (e.g. recovering from lameness), as well those that bred and raised racehorses. Performance horse caretakers were those that worked with a horse (or
horses) that had an expectation of or requirement of work (i.e., school horses, show horses of all levels); all working disciplines except racing were included in the definition of this industry sector. Pleasure horse caretakers were defined as those without an expectation of work, though they could be ridden regularly. Caretaker focus group interviews were conducted in May and June of 2012, equine veterinarian focus groups were conducted in March of 2012.

2.2 Study participant recruitment

Participants for the caretaker focus groups were recruited by word of mouth (e.g., social media, posters at tack stores, and flyers posted at horse shows) (Appendix A.6). Caretaker focus groups were held within a 2-hour drive-time radius of the University of Guelph (Guelph, Ontario, Canada) and locations were chosen to be easy for participants to access; one was held at a farm, two were held in the private dining room of a restaurant, two were held in a hotel conference room, and four were held in community centres. Caretakers were offered a $25 honorarium for their participation. Individuals interested in participating contacted the author via phone or email. Caretakers were then asked to self-identify the industry sector in which they participated based on the criteria outlined above. Participants were able to choose which focus group date, time, and location they preferred.

The veterinarian participants were identified using the College of Veterinarians of Ontario’s publically accessible database of licensed veterinarians in Ontario (February 14, 2012). From this database, separate lists of equine and mixed animal veterinarians that practiced within a 2-hour radius of Guelph were created. A random number generator assigned each veterinarian on the list a number and participants were then contacted in order. Initial contact with veterinarians was made via a faxed or mailed letter (Appendix A.1) outlining the study objectives, detailing their involvement and offering a $50 honorarium for their participation.
Recruitment was completed via a follow-up phone call by the author (Appendix A.2). Veterinarian focus groups were held in a private dining room at a restaurant in Guelph.

2.3 Focus group interview structure

A semi-structured interview format was employed for the caretaker focus groups; a standardized discussion guide with open-ended questions and follow-up probes was followed (see Appendix A.7 for key questions). The author, an equine veterinarian, generated the discussion guide with input from a research team of three colleagues having industry, content, and/or methodological expertise. It was then pretested in a mock focus group with a small group of caretakers known to the research team, in order to establish clarity and comprehensibility of the questions. The veterinarian focus group discussion guide (Appendix A.4) was crafted using the same methodology.

An experienced moderator and a research assistant, neither of who were members of the research team, conducted all caretaker and veterinarian focus groups. All focus group discussions were audio recorded using an omni-directional voice recorder (H2 Zoom Recorder). The author subsequently transcribed the recordings verbatim, following which any identifying information (i.e., participants’ names, reference to geographical locations, horse names) was removed.

2.4 Data Analysis

The author conducted thematic analysis on the caretaker focus group transcripts. Transcripts were coded line-by-line, and then codes representing common ideas and patterns in the data were identified and organized into subthemes and themes [18]. A theme was defined as a “patterned response or meaning within the data set” [18]. Themes, subthemes, and codes were subsequently recorded and described in a codebook (Appendix 3). The veterinarian focus groups were analyzed using the same coding framework developed from the analysis of the caretaker
focus groups, and new codes and subthemes were identified and added to the codebook as required.

Using the established codebook, a horse owner independently coded all transcripts to establish inter-coder reliability [19,20]. Agreement between coders was evaluated at the subtheme level. After both the horse owner and the author had coded the transcripts, disagreements were identified and discussed. If code disagreements were not resolved through discussion, they were deemed to be true disagreements. Inter-coder reliability was calculated by dividing the number of agreements by the total number of agreements plus true disagreements [19,20].

3. Results

The number of participants in each of the nine caretaker focus groups ranged from 2-8 individuals. A total of 46 horse caretakers participated in the nine focus groups of which there were 12 in the three racehorse focus groups, 16 in the three performance horse groups, and 18 in the three pleasure horse caretaker groups. The average number of years participants had been involved with horses was 27.7 years (median 26.5 years; range 6 to 66 years). Caretaker demographics are presented in Table 2.1. The number of participants in each of the veterinarian focus groups ranged from 5-7 individuals, with a total of 25 veterinarians (10 female and 15 male veterinarians). Twelve veterinarians participated in the mixed animal groups, and 13 veterinarians participated in the strictly equine groups. Participants had been in practice for an average of 20 years (median 20 years, range 0.75 - 45 years). There was diversity in veterinarian participants’ primary area of focus within the equine industry with 32% being primarily focused on racetrack, 36% on pleasure horses and 28% on performance horses. Inter-coder reliability for the two independent coders was 0.96.
Thematic analysis of the 9 caretaker focus groups revealed 6 themes relating to caretakers’ expectations of equine veterinary care: Customer service, veterinarian’s ability, the veterinarian-horse relationship, the veterinarian-client relationship, veterinarian-client communication, and financial aspects of veterinary care (Appendix A.9). Veterinarians discussed similar themes to those caretakers did; however, differences in their discussion of subthemes were observed and captured.

This report focuses on the financial aspects of veterinary care theme because it was strongly linked to the communication and veterinarian-client relationship themes, and was a theme in which many caretaker expectations from other themes were illustrated. As well, it was found to be an area where differences between veterinarians and caretakers were identified. Within the theme of financial aspects of veterinary care six main areas were discussed as key concepts: “Don’t be afraid to talk about money”; “let me decide”; veterinarian’s knowledge and understanding of the caretaker’s perspective; horse first, money second; costs of veterinary care and billing; and challenges faced by veterinarians.

3.1 “Don’t be afraid to talk about money”

In all caretaker industry groups, the topic of the costs of veterinary care were raised, although dialogue only developed in the pleasure and performance horse focus groups. When discussed, participants indicated that they appreciated when veterinarians were willing to discuss costs with them; “I would say don’t be afraid to talk about money with the client.” A handful of caretakers wanted to have information about the cost of care discussed openly. A few caretakers indicated cost information was valuable to making an informed decision, “It’s like oh okay, well, that’s not that bad, I can deal with that. Or, oh shoot, I can’t afford that yet, is it okay if we hold off for a couple weeks while I save up?” A couple of participants discussed the negative
consequences of not having a cost discussion prior to treatment, such as anxiety and stress waiting for a bill when the cost had not been discussed. In one participant’s experience resulted in the barn where they boarded their horse changing veterinarians after receiving a bill that was higher than expected.

Discussing the cost of care with clients was minimally discussed by the veterinarian participants. However, a few veterinarians from two focus groups (one mixed and one equine group) spoke briefly about discussing costs of veterinary care with clients. For these participants, it arose primarily in the context of the positive impact that those discussions could have for the veterinarian, such as reducing the chance of misunderstandings over invoices or unpaid bills, “For all new clients, we’re asking for payment at the time of service, … I’ve found it’s worked better if you just tell them [that] up front, especially the guys that you don’t know.” Several veterinarians within the focus groups where cost conversations were discussed expressed feelings of discomfort and reluctance regarding discussions of invoices or payment, “The odd client is like, ‘I want to write you a cheque’, so those are always the awkward ones where at the end of the call you have to sit there and figure out the cost.”

There was concern expressed by a couple of the caretaker participants across the pleasure and performance horse groups that veterinarians judge a client’s willingness or ability to spend money on the veterinary care of their horse. Based on that judgment, the veterinarian would then limit the medical options presented to those they assume the caretaker could afford, “[you] want all the options, not just what your vet would assume you can afford”. Caretakers suggested several criteria on which veterinarians might base their judgments, such as the veterinarian’s perception of the horse’s monetary value, assumed financial situation of the caretaker, or prognosis associated with the horse’s condition, “I don’t want … the vet coming to judge. I don’t
want the vet coming in and making that judgment call saying, ‘well that horse is 16 years old and, you know, [you] haven’t ridden him for 4 years.’ Well, too bad … he’s my horse.”

Within all caretaker industries, particularly within the pleasure and performance horse groups, participants expressed that they wanted to be provided with cost information for the procedural or treatment option presented, as well as benefits, risks and prognosis. One caretaker described the cost information they wanted from their veterinarian when faced with multiple options, “[to let] you know what the relative advantages and disadvantages of doing that are; what the relative costs are; what the success rates are, so I can make that judgment as to whether it’s a good investment for me or not”. Another caretaker suggested a way options could be presented by a veterinarian, “Okay, well, we can keep this horse comfortable at this option… going to cost you this much, there’s this option that will be a bit better, it’ll cost you this much. We can go top of the line. And then prognosis as well.”

Across the equine veterinarian focus groups, a few veterinarians touched upon the importance of discussing the cost alongside options, although in general, veterinarian participants discussed options without referencing cost discussions. When they were discussed together, these veterinarians indicated that their clients did not want to be told what to do, but wanted to be provided with options, explanations and cost information, “[clients] want to understand what are their options. They are becoming more cost careful I have noticed. It’s not like ‘let’s do this and this’ … It’s like ‘Okay, what are my options, and explain to me [what] my options are and then we’ll make the decision.’”

3.2 “Let me decide”

A number of caretakers from the pleasure and performance horse groups spoke about wanting to be the decision-maker regarding their horse’s health. A key sentiment expressed was
that decision-making should be left to the caretaker because veterinarians cannot know the amount of money a caretaker would be willing to spend on medical care for a given horse or the importance of the horse to the caretaker, “let me decide whether I’m going to spend … a thousand dollars on that particular horse or whether I’m going to spend 30 thousand dollars.”

Another caretaker commented, “I think for somebody that’s coming in from the outside … thinking ‘that [horse]’s never going to be a world beater, why would we send that for surgery right?’ Never to make those assumptions … maybe to that person it’s all they’re going to have; or all they’re ever going to want; or it serves its purpose; or all those things.”

The role of the veterinarian in the decision-making process was touched on within all four veterinarian focus groups; however, dialogue on the topic only developed in one equine veterinarian group. Participants that commented indicated their role was to “help to make [the] decision” through the provision of good advice and counsel, rather than make decisions for clients. One veterinarian commented that clients with whom they had a better relationship were more likely to follow the recommendation provided. The importance of the horse-client relationship in clients’ decision-making did not arise as a topic of conversation within the veterinarian focus groups.

3.3 Veterinarian’s Knowledge and Understanding of the Caretakers’ Perspective

Within the performance and pleasure horse focus groups, participants discussed that their veterinarian should have knowledge of them as an individual, including an appreciation for their financial situation. Caretakers wanted the veterinarian to understand the decisions they made for financial reasons, and not pass judgment on them or their decisions. Further, this knowledge would allow veterinarians to include recommendations that suited the caretaker and horse’s unique situation, “He said ‘I know a $1200 surgery is a little bit out of what you would want to
spend on this, we can look at other options.'” This participant specifically appreciated the way in which the veterinarian demonstrated an understanding of their circumstances, and was willing to work with them to find a solution for the mare that would be more consistent with their wishes and financial resources.

Veterinarians from both equine and mixed animal focus groups discussed the value of knowing a client’s history of spending money on veterinary care and their habits with respect to payment of invoices. Veterinarian participants commonly discussed the needs and wants of specific industries or client personality types, rather than focus on individual client needs or specific financial situation. For example, several veterinarians spoke about certain industries, specifically racing, being more financially-oriented than others, “Standardbred-type clients, right, it’s a very different approach, it’s a get’er done, businesslike maybe approach, and maybe it’s more based on the finances of the situation versus, … how this animal was going to do, how it’s going to recover, is it painful.” There was also discussion by a few veterinarians of their clients’ general orientation towards treatment choices; a common sentiment was that “most of [their] horse clients would go to the cheaper alternatives for sure.” A couple of veterinarians commented that having knowledge of an individual client contributed to their ability to provide appropriate treatment for the horse and to meet the needs of the client. One veterinarian described how she makes recommendations based on what she knows about the client, “This is what we probably should do given what you've told me about yourself and what your expectations are, and what you hope to do with the horse, and what your monetary situation is. This is probably the best choice, but I'd be happy to talk to you about any of the other ones too."

One mixed animal veterinarian focus group discussed modifying the delivery of options, or changing the options provided depending on the client to whom they were speaking.
Participants in this group seemed to agree that when they presented options to clients they saw frequently, they adjusted their delivery to that particular client, “I have clients I know are not shipping a horse to a hospital for colic surgery. … So, even when you mention it, you frame it in a 'if the horse was worth a million dollars or if you won the lottery.’” One participant said they found it challenging to not change or limit the options that they presented when they had the impression that the client had limited financial resources. Within this focus group, there was agreement amongst veterinarians that they modified delivery of options, based on the client.

3.4 Horse First, Money Second

All caretaker industry groups discussed the different attitudes demonstrated by veterinarians with respect to the financial aspects of veterinary care. A handful of caretakers expressed concern that equine veterinarians are strongly driven by making money, although none of the participants voiced concern specifically about the veterinarians they worked with. One caretaker commented, “you don’t want a vet that’s all about the money.” A few participants discussed that they appreciated when a veterinarian was able to reduce the cost of care (e.g., by splitting a call fee or commenting on a texted photo from a client), instead of looking for ways to charge the client more money. In one of the racing-caretaker focus groups, during a discussion of emergency care, several participants expressed a desire for immediate treatment to be provided to the horse before payment information was gathered. One racing caretaker described their frustration regarding the treatment they received when they brought a horse to a hospital for emergency treatment, “[the clinic was] more interested… in who owns the horse, how it's going to be paid for, than they [were] worried about treating this horse immediately.”

Participants from the performance horse, as well as the pleasure horse groups, expressed that it was important that their veterinarian demonstrate a “practical” approach to their horse’s
care. This approach included attention to the costs of care or “a good bottom line orientation” of the veterinarian; such as suggesting less expensive products where appropriate, and using the least expensive diagnostic test suitable for the situation, “if he only needs an ultrasound to diagnose a problem, don’t order an MRI.” A related concern raised by a few performance horse caretakers from one focus group was that veterinarians could recommend more costly or frequent treatments than necessary in order to make more money, one participant commented that veterinarians could “manipulate the treatment plan to go as far as possible with the biggest [cost] things possible.”

A couple of veterinarians from one equine veterinarian focus group spoke about the importance of demonstrating awareness of the costs of care provided and the benefit of a potential treatment or diagnostic test to clients. These veterinarians discussed how they strive to be respectful of the client’s pocketbook, “I always preface things by saying, you know, ‘that’s very expensive, we don’t have to do that, but, it could be very useful to do a scintigraphy even though it’s $1200, you know, … we’ll get a lot of information from it…’ I like to bring money into it and I like to try to make them think that I’m trying to save them money whenever I can.”

3.5 Costs of Veterinary Care and Billing

A few participants from two racing and one performance horse group discussed the price of veterinary care. It was important to these participants that the price of a veterinarian’s services were consistent, “fair” and “competitive”. Further, they expressed that they wanted to feel that they were receiving good veterinary care for the money they were paying. Frustration was voiced regarding the perceived profit margins that veterinarians made on some services and medications, as well as at the thought of being taken advantage of.

There was discussion in all industry groups regarding veterinarians’ billing habits; areas
mentioned include the need to adapt to a veterinarian’s payment policy (e.g., at the time of service), and a desire for prompt and correct invoicing. Other participants spoke about veterinarian’s willingness to extend leniency with regard to time of payment when significant costs were encountered or to bill multiple owners when requested.

Veterinarians from both mixed animal groups briefly discussed their perceptions of what clients wanted from them with respect to the price of services. A few stated their clients wanted them to provide cheaper alternatives to the gold standard; further, a couple of veterinarians commented their clients expected them to have competitive or inexpensive fees. Several veterinarians remarked that their clients expected delayed billing and leniency with respect to expected time of payment.

3.6 Challenges Faced by Veterinarians

All but one equine veterinarian focus group discussed challenges they faced with respect to the financial aspects of veterinary care. Nonpayment of invoices was identified as a significant issue encountered by veterinarian participants. There was discussion regarding why certain clients did not pay their bills; such as, how the client felt about the veterinarian, the result of a negative outcome, client dissatisfaction, or the client’s personality, “not paying bills is a way of life for equine clients.” Another veterinarian perceived client nonpayment more personally, commenting that they interpreted a client’s nonpayment as, “I didn’t appreciate what you did.” It was discussed that there was little that could be done about clients that did not pay their bills, and there was a general attitude of acquiescence that this problem inherently exists in equine veterinary practice.

Veterinarian participants discussed the amount of work often required to ensure payment was received, and the difficulty they had with speaking to clients about payment or overdue accounts due to their own discomfort with the topic. A few veterinarians voiced frustration with the time and effort involved in collecting the money owed for services rendered, “taking the time to run down clients that haven’t paid you is sort of working twice for the same dollar.” One veterinarian described the dread they
experience when they need to have a conversation with clients when they have overdue invoices, “I hate that situation… it’s gut-wrenching.”

4. Discussion

The present study identified equine veterinary interactions specific to the financial aspects of equine veterinary care to be a challenge to the veterinarian-client relationship due to potential differences identified between caretakers’ and veterinarians’ perceptions. In general, caretakers indicated it was important for cost to be discussed, whereas veterinarian participants’ did not speak to this. Research in companion animal veterinary medicine has similarly shown that these clients also expect cost discussions to occur during appointments [5], yet in one study only 29% of companion animal appointments contained a cost discussion [12]. In human healthcare, a study found that 63% of patients had a desire to speak about out-of-pocket costs for health care, and 79% of physicians thought that patients wanted to discuss costs; yet physicians and patients reported that these conversations occurred infrequently (35% physicians, 15% patients) [21]. Based on the findings of the current study, cost conversations appear to be important to equine clients as well. As such, finding ways to support equine veterinarians and caretakers in having conversations about cost is important. One way of doing this is through the use of communication skills, such as empathy [5,22], which can help veterinarians find common ground with clients and provide structure to cost conversations.

In the present study, caretakers discussed the role of cost discussions as providing important information that assisted their decision-making process, whereas few veterinarians spoke about the informative role of cost discussions to a client’s decision-making ability. Providing options and cost information to small animal clients has been recognized as an important part of a client’s decision-making process [3,23]. In human medicine, it has been shown that the costs of care influence the medical treatment patients seek and the likelihood of
medication adherence [24,25]. Further, in human medicine, findings suggest that patients who do not notify their doctor that they will be unable to pay for their medications are not routinely asked by their doctor about their ability to pay [26]. These patients have been found to believe their doctor would not be of assistance if they did bring up the monetary concerns. When conversations about medication costs occur in human medicine they have been associated with the patient being switched to a less expensive medication [27], and with patients reporting such conversations as being helpful [26]. Research from human medicine illustrates the value of discussing costs, as well as suggests that cost conversations may positively impact patient outcomes. The findings of the present study demonstrate the importance and value of having discussions about cost in assisting equine clients in making decisions in relation to the healthcare of their horse. Equine veterinarians would benefit from reflecting on the frequency and manner with which they discuss costs with their clients, as well as identifying their own and clients’ barriers that need to be overcome in order to pursue cost discussions in equine veterinary practice.

In the present study, caretakers expressed a desire to be presented with “all the options, not just what your vet would assume you can afford”. This is consistent with a study of companion animal pet owners, which found 90% of respondents indicated they wanted to be presented with all options by their veterinarian, regardless of cost [11]. Similarly, a review of decision-making studies in human medicine determined that patients have a desire to be informed of treatment choices [28], even when the cost of an option was high [29]. Based on the findings of the present study, equine veterinarians should be conscious of not judging or making assumptions about their client’s financial situation and should ensure that they discuss the range of options with their clients regardless of the client’s actual or perceived economic situation.
Further, caretakers in the current study asserted their role as the primary decision-makers regarding their horses’ care and the resources they devoted to it, not their veterinarians. Comparatively, the desires of human patients with regard to decision making are more varied and have been associated with factors such as health status [30], severity of disease, age and education level [28]. Patients’ desired roles ranged from the patient having an active role in decision-making, the physician making treatment decisions, and a shared decision-making process [28,30,31,32]. Due to this recognition of the varying wants of patients, it has been suggested that there is a need to tailor patient communication to attend to the individualized expectations for participation in the decision-making process [33]. The findings of the present study highlight the need for equine veterinarians to explore the role caretakers want to adopt with respect to decision-making and reinforce the need to refrain from making judgments about the willingness of a client to spend money on their horse’s care.

Another finding of the present study was that caretakers wanted veterinarians to have knowledge of their unique situation, including an understanding and respect for their financial situation, when providing care to their horse. Caretakers perceived that this understanding was an important consideration for veterinarians in providing care to their horse. In a 2013 AAEP study [b], it was found that satisfied clients rated their veterinarian significantly higher on the attributes of “values your opinions/judgment” and “understands your business” than unsatisfied clients. Both of these veterinarian-client relationship attributes require that the veterinarian seek information about the client’s situation. In equine medicine, the client dictates the horse’s lifestyle or industry and workload (e.g., frequency of work, duration of work), which in turn could affect the horse’s veterinary care needs. As such, having conversations with the client is an essential step towards gaining a complete picture of the client and horse’s situation, and in
understanding what resources the client is willing to devote to their horse’s care.

An additional aspect of the caretaker’s situation that was identified as important to participants was their relationship with their horse. The present study identified that this was an influential component of their decision-making. Engaging caretakers in discussions about their relationship with the horse is likely to provide valuable information to an equine veterinarian regarding the role and value of the horse to the client, as well as the level of veterinary care the caretaker may desire for their horse. This will position the veterinarian to incorporate their understanding of a caretaker’s relationship with their horse into the advice and care presented to the client.

Equine veterinarians involved in the present study reported that discussing invoices or payment with clients was challenging due to feelings of discomfort, though they did not comment as to the origin of those feelings. In companion animal research, veterinarians’ feelings of unease have been reported as a barrier to cost discussions [5]. These veterinarians indicated their feeling of unease about raising financial discussions with companion animal clients arose from previous experiences where they had been made to feel undervalued by the client, or previous experiences where the veterinarian had been made to feel guilty by the client. In human medicine, physicians have cited time constraints and a lack of a remedy to the patient’s financial situation as barriers to cost discussions [34]. Due to the fee for service nature of veterinary medicine, it is important that equine veterinarians equip themselves with tools to assist in facilitating cost conversations, including the use of specific communication skills.

In the present study, several veterinarian participants discussed clients’ desire for inexpensive veterinary care, whereas the few caretakers who mentioned prices wanted them to be “fair”, “competitive” and consistent. The limited importance of price to caretakers is supported
by the results of a recent study where “low cost of services or fees” was selected by only 10% of horse owners and trainers as “one of the top 3 [attributes] most important to them” [b]. Similarly, a study in companion animal medicine found that many pet owners consistently show an indifference to the costs of necessary pet-care products and services, with 76% stating they would “spend any amount necessary to keep their pets healthy” [4]. This research suggests that if clients understand the value of veterinary services with respect to the health and wellbeing of the animal, the cost of care is less of a barrier. It is important for equine veterinarians to consider how they communicate the costs of veterinary care to their clients in a way that addresses the value to the health and wellbeing of the animal. In approaching cost conversations from this perception of value, equine caretakers are more likely to view the cost of veterinary care to be “fair”, “competitive” and consistent.

In the present study, caretakers wanted the care of the horse to be the veterinarian’s first priority, and for financial interests to be secondary. These findings support those from companion animal medicine where pet owners thought that their animal’s care should be given priority over monetary concerns [5]. The same study also found that some pet owners questioned whether financial gain was a motivation behind recommendations [5]. Clear communication regarding the rationale, objective, and value of recommendations has been suggested to help alleviate some of the suspicion clients may have regarding the motives behind veterinarians’ recommendations for care [5], and may also help to meet the caretaker’s expectation that the horse comes first. In human medicine, a strong and trusting patient-physician relationship has also been reported to mitigate the challenges associated with the cost of care [26,35]. Upfront and open communication regarding costs and a strong veterinarian-client relationship may be used to alleviate caretakers’ concerns that the veterinarian’s primary goal is not the patient’s
health and wellbeing.

As veterinarians endeavor to meet the expectations of equine caretakers, clinical communication skills can be used as a framework for cost conversations, and to build strong veterinarian-client relationships that facilitate the open and transparent information exchange needed in this area. A veterinarian’s ability to provide high-quality veterinary care to horses and to form strong relationships with their clients increases with the amount of information they have about the client, the care the client wants for their horse, and the financial resources the client is willing to dedicate to the horse’s care. The use of open-ended inquiry provides an opportunity for the client to share their perspective and allows them to tell their story [36]. Open-ended inquiry involves posing questions to which a simple “yes or no” response is not elicited, and where the direction of the conversation is left somewhat open for the client to determine [36]. This skill is useful when seeking to gain information about the client and patient or when gauging how the client feels about options and cost information provided. The response from the client about their financial circumstances or their views on the options and costs of care can then be used to help guide the conversation, identify areas of concern or misunderstanding, and provide the veterinarian a window into the client’s perspective. Reflective listening and empathy can also be used during cost discussions to indicate genuine care and appreciation of a client’s situation, and to enhance partnership between the client and veterinarian [5,36], thus continuing to build a strong relationship. Reflective listening is a statement which paraphrases what the veterinarian has heard the client say, and can be used to demonstrate understanding, invite the client to elaborate or to request clarification regarding the information that was shared [36]. Empathy is a two-part process, the first involves an understanding of the client’s experience and the second is the demonstration of that understanding using verbal or non-verbal communication [36]. The use
of empathy by physicians in cost discussions with patients has been suggested to build trust and strengthen relationships [22]. Further, empathy sets a foundation for facilitating shared decision-making and negotiation of options within difficult conversations [22,37]. The use of these communication skills during equine veterinarians’ conversations about cost serves to elicit the client’s perspective, demonstrate understanding, and enhance partnership; all of which should contribute to the overall quality of the veterinarian-client interaction and meeting the client’s expectations of the veterinarian with regard to the financial aspects of veterinary care.

The use of focus group methodology allowed for the exploration of a topic area about which little is known. The primary strength of focus group methodology is that it freely solicits the feelings, views, and experiences of participants and allows participants to discuss the issues that are most important to them. The use of caretaker focus groups in this study allowed us to gain an understanding of participants’ needs and expectations of equine veterinarians, as well as to glean information about the rationale behind those expectations. The veterinarian focus groups provided us with information we could contrast with the data obtained from the caretaker groups and identify where differences in veterinarians’ perceptions and clients’ expectations lay. The qualitative nature of this study limits the extent to which the results can be generalized beyond the context and situation of the participants of the present study without careful considerations. The composition of the caretaker groups may have been influenced by selection bias because participants volunteered to participate, and as such, the participants may share common traits related to their desire to participate in the present study. We attempted to minimize the potential impact of this bias by having 3 focus groups per industry sector and conducting the focus groups in several different geographical locations. Areas for future research include observational studies to analyze cost conversations between equine veterinarians and clients.
of how these conversations impact client adherence and patient health outcomes in equine veterinary practice.

5. Conclusions

This study emphasizes the importance of equine veterinarians engaging in conversation with their clients about the financial aspects of veterinary care including caretakers’ circumstances, expectations, and needs of veterinary care. This information will better position veterinarians and clients to manage the challenges associated with addressing the financial aspects of veterinary care. More effectively managing the financial aspects of veterinary care is likely to contribute to the veterinarian’s ability to provide high quality patient care and to build strong and lasting relationships with their clients.
Footnotes


References


[7] Nogueira Borden LJ, Adams CL, Bonnett BN, Shaw JR, Ribble CS. Use of the measure of


Table 2.1: Caretaker Participant Demographics

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Participants were able to identify all roles that applied
Chapter 3

An exploration of equine caretakers’ expectations and equine veterinarians’ perceptions of the veterinarian-client relationship

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Abstract

Objective – To explore equine caretakers’ expectations of the veterinarian-client relationship and equine veterinarians' perceptions of caretakers’ expectations of the veterinarian-client relationship

Design – Focus group interviews

Participants – 9 equine caretaker focus groups (n=46) and 4 veterinarian focus groups (n=25)

Procedures – The focus groups were conducted using semi-structured discussion guides. Thematic analysis was performed on the data transcripts.

Results – Caretakers wanted to have a personal relationship with their veterinarian, and described the impact that relationship can have on the care the horse receives. Veterinarians spoke about their client relationships being a key to success in practice. Caretakers also expected the veterinarian to understand and take their situation into account when working with them and their horse, including the caretaker’s relationship with their horse. Communication was described to be a way the relationship with the veterinarian was developed and maintained. Caretakers spoke about the importance of having trust in their veterinarian; and veterinarians viewed the client trusting them as an essential quality of an effective veterinarian-client relationship. Lastly, the stall-side manner of the veterinarian was discussed by caretakers as important to their willingness to work with a given veterinarian.

Conclusions – The development of a good veterinarian-client relationship is important to both equine caretakers and veterinarians. Further, this relationship appears to influence the care their horse receives. The purposeful use of communication skills can be used to support relationship development between equine veterinarians and clients. Equine veterinarians should pay attention to their communication with their clients to support relationship development.
1. Introduction

A relationship is defined as “the way in which two or more people are connected, talk to, behave toward, and deal with each other” [1]. In veterinary medicine, the relationship that exists between veterinarian, client and patient has been stated to be the foundation for effective patient care [a]. This sentiment is echoed in the human healthcare literature, which asserts that the doctor-patient relationship is a cornerstone of care, and serves as the vehicle through which a patient’s history is attained, diagnostic and treatment plans are formed, adherence to recommendations is positioned, and support is provided [2]. In human healthcare research, the physician-patient relationship has been extensively investigated, and a number of relationship attributes have been identified as contributing to an effective physician-patient relationship, including trust, communication, and interpersonal skills [3-5]. The physician-patient relationship has been associated with positive patient outcomes such as satisfaction [6-9], adherence [7,10,11], symptom resolution [12,13], improved mental health [3], function [14], and physiologic measures [15,16]. Further, the patient’s confidence in the physician and the physician’s knowledge of the patient have been found to be associated with patient-perceived health improvement [17]. There is a significant body of evidence in human medicine illustrating the influences of the physician-patient relationship and communication on the outcomes of care; it is reasonable to assume there may be similar associations between the veterinarian-client relationship and patient outcomes.

Equine veterinary medicine is an area of veterinary medicine in which the contributors to and the outcomes of the veterinarian-client relationship remain mostly unexplored. Within the small body of literature in this area, it has been reported that the four traits that matter most to clients when selecting a veterinarian are “veterinary competency”, “horse handling”, “doctor
A marketing study of horse owners and trainers found that 43% of respondents (n=6148) agreed with a statement that their primary veterinarian is “a good friend of mine”, and had used the same primary veterinarian for an average of nine years [b]. In addition, the most frequently indicated reason (32%) horse owners and trainers had fired a veterinarian was “didn’t like communication style, personality, demeanor”. This literature suggests that relationship dimensions, such as communication and interpersonal compatibility, are important to equine clients. There remains much to be learned about the expectations equine clients have of the veterinarian-client relationship and how the veterinarian-client relationship impacts the outcomes of equine veterinary practice, specifically the health of the equine patient.

In companion animal veterinary medicine, more research has been done on veterinarian-client communication [19-22], client expectations [23,24], and the influence of veterinarian-client interactions on the outcomes of veterinary care [25]. Clients have identified “educating clients”, “providing choices”, and “2-way communication” as expectations of veterinarian-client communication that are likely to have important associations with the veterinarian-client relationship [23]. The same study also noted that breakdowns in communication have the potential to be detrimental to the veterinarian-client relationship. In addition, research has shown that veterinarian-client interactions in companion animal practice which rate higher on measures of relationship-centered care were more likely to result in client adherence to dental or surgical recommendations [25]. The above research findings in companion animal medicine suggest that effective veterinarian-client communication is critical to an effective veterinarian-client relationship, thus identifying opportunities to positively influence the outcomes of care.

Given how little is known about the equine veterinarian-client relationship, an
exploratory approach was employed for the current study through focus group discussions to investigate the experiences, thoughts, and opinions of equine caretaker and veterinarian participants. The objective of the present report is to describe equine caretakers’ expectations and veterinarians’ perceptions of caretakers’ expectations of the veterinarian-client relationship. This manuscript represents part of a larger study that sought to explore equine caretakers’ expectations of equine veterinarians and veterinarians’ perceptions of clients’ expectations, in which 6 themes were identified: customer service, veterinarian’s ability, the veterinarian-horse relationship, the veterinarian-client relationship, veterinarian-client communication, and financial aspects of veterinary care. The present study defined caretaker expectations as value expectations, which are those desires, hopes, and wants held by caretakers about what will happen in the interaction with the veterinarian [24,26].

2. Materials and Methods

The study protocol was reviewed by the University of Guelph Research Ethics Board (REB 12JA19). The study design, study participants, focus group structure, and data analysis have been described elsewhere (Chapter 2). In brief, nine equine caretaker focus groups were conducted. Three caretaker focus groups were held for each of the racehorse, performance horse, and pleasure horse industries during May and June 2012. Caretakers were defined as individuals who were responsible for arranging veterinary care for a horse(s) and, after the veterinary care was administered, remained involved in the care of the horse(s). In addition, four veterinarian focus groups were conducted during March of 2012; two focus groups involved mixed animal veterinarians and 2 involved equine veterinarians. Veterinarians were classified as ‘mixed animal’ if their practice caseload was comprised of 15-90% equine work, veterinarians whose caseload was 90-100% equine were considered ‘equine’ veterinarians. All focus groups were
conducted independently of each other.

2.1 Study Participants

A total of 46 caretakers (42 female and 4 male) participated, and focus group size ranged from 2-8 individuals. Caretaker participants had been involved with horses for an average of 27.7 years (median 26.5, range 6 to 66 years). With respect to the number of veterinarians used by caretaker participants, 19 caretakers used one veterinarian, 10 caretakers used one clinic with multiple veterinarians, and 15 caretakers used multiple veterinarians or clinics (one participant did not respond). Caretaker participants were recruited through social media (i.e., Facebook), posters at tack stores, notices posted at horse shows, and word of mouth in the southwestern Ontario equine community. Interested individuals contacted the author by email or telephone to schedule their participation in the appropriate industry focus group. Focus groups were held at easily accessible locations within a 2-hour driving radius of the University of Guelph (Guelph, Ontario, Canada), including a privately owned barn, a local hotel and several community centres.

Twenty-five (10 female and 15 male) veterinarians participated in the study. Veterinarian participants had practiced for an average of 20 years (median 20 years, range 0.75 - 45 years). Two lists of potential participants, one for ‘mixed animal’ and one for ‘equine’ veterinarian recruitment, were assembled from the College of Veterinarians of Ontario’s publically accessible database of licensed veterinarians in Ontario (accessed February 12, 2012). Veterinarians considered for participation were located within a 2-hour driving radius of Guelph. Veterinarian focus groups were held on weeknight evenings, at a private dining room in a restaurant in Guelph, Ontario, Canada.

2.2 Focus Group Interview Structure

Each caretaker and veterinarian focus group was conducted using semi-structured
discussion guides, which were developed by the author in consultation with a research team having content and methodological expertise. Separate discussion guides were written for the caretaker and veterinarian groups, and contained open-ended questions with follow-up probes. Two independent mock focus groups, comprised of caretakers and veterinarians known to the research team, were held to test each respective discussion guide. The mock focus groups were used to ensure clarity and comprehensibility of questions in the discussion guide, as well as coverage of important topics. A trained moderator and research assistant, who were not members of the research team, led all caretaker and veterinarian focus groups. All focus group interviews were recorded using an omni-directional recorder (H2 Zoom Recorder, Zoom Corp.). The author subsequently transcribed the audio-recordings verbatim. All identifying information (i.e., participant’s names, horse names, geographical references) was removed at the time of transcription.

2.3 Data Analysis

Data from the caretaker focus groups were analyzed first, using thematic analysis [27]. The first stage involved line-by-line coding of the transcripts; codes were recorded and described in a codebook. Trends and patterns in the codes were then identified and organized into subthemes and then into themes [27]. Veterinarian focus groups were then analyzed using the same methodology and with the codebook generated by the analysis of the caretaker focus groups; new codes and subthemes unique to the veterinarian focus groups were generated as necessary.

A horse owner, who was independent of the research team, also reviewed and coded the transcripts using the final codebook established by the author. The independently coded transcripts were then compared to establish inter-coder reliability of the coding scheme [28,29].
This process involved identifying when the coders used different codes for a given section of the transcript; the author and second coder then discussed these differences, if agreement could not be reached, it was deemed to be a true disagreement. Agreement was evaluated at the subtheme level. Inter-coder reliability, calculated by dividing the number of agreements by the number of agreements plus disagreements, was 0.96 for the two independent coders. Throughout the results, participant quotes are used to support the findings; square brackets within a quote indicate wording that has been clarified and ellipses are used to indicate that words have been removed due to redundancy or lack of relevancy.

3. Results

Results of the study specific to the veterinarian-client relationship theme are presented here. Seven subthemes associated with the equine veterinarian-client relationship theme were identified through analysis of the focus group discussions: (1) “having that personal relationship”, (2) understand and take the caretaker into consideration, (3) horse-caretaker relationship, (4) communicate to build the relationship, (5) trust, (6) “stall-side” manner, and (7) veterinarians’ challenges with regard to working with clients.

3.1 “Having that personal relationship”

Caretakers across all industry groups discussed the benefit and value of having a good relationship with their veterinarian. A number of caretakers perceived the relationship they had with their veterinarian to have an impact on the outcome of an interaction, “if you have a relationship … with your vet, if it’s a good one then your experiences should be decent because… you must be [on] some sort of same level or same respect.” Several participants also commented on the depth of their relationship with their veterinarian, and highlighted the personal nature of the relationships they have with their veterinarians, “finding a good vet's like finding a
boyfriend/girlfriend/husband/wife, it's a relationship that we build for like 35 years.” Another caretaker described a veterinarian as “a friend you pay.” A few caretakers mentioned that maintaining a good relationship with their veterinarian was important, because it ensured that the veterinarian would be willing to provide prompt care to their horse in the event of an emergency. Several caretakers across all focus groups described having increased tolerance for poor treatment outcomes because of previous good experiences and a strong relationship with their veterinarian.

There was discussion of the veterinarian-client relationship in all veterinarian focus groups. Several veterinarians spoke about how their relationships with clients contributed to success in practice; one veterinarian commented that in equine practice “you have fewer clients and you interact with them more and … you need to make those connections or … they’ll call somebody else.” Another described having a better relationship with clients that are seen more frequently, “you have a different rapport with [the client you see every day] than you do with the person that you see 3 times per year.” The personal nature of veterinarian’s relationship with their clients was also mentioned, “clients … do kind of become a family right, and on a good day, I always say ‘just driving around to see my friends.’” A few veterinarians spoke about the enjoyment they experienced when they were able to work through a problem with a client, or when the client wanted them to be their regular veterinarian. Within one mixed animal veterinarian focus group, participants discussed the difficulties working with clients who were not their regular client or clients who were accustomed to another veterinarian. These participants suggested that these difficulties developed from the client not trusting them, and from the client wanting the same treatment that the other veterinarian they were accustomed to would have provided. One veterinarian commented, “I practice under the shadow of … another
3.2 Understand and take the caretaker into consideration

Caretakers from all industry groups spoke about the importance of the veterinarian understanding them and taking their unique situation into consideration, “So knowing the client is important, but treating them like almost a second patient in … that [the veterinarian] need[s] to really have an understanding of where that person is.” A handful of caretakers expressed that it would influence the recommendations made by the veterinarian for the horse’s care. This broad expectation was manifested in several different areas, one of which was the caretaker’s goals as a rider or for their horse (e.g., to compete at a specific level, to be used for trail rides), “be cognizant of what your goals are as a rider and a horse owner, and the treatments could potentially vary depending on that.” Several caretakers commented that a veterinarian’s knowledge of their horse’s sport or breed would influence their choice of veterinarian, because participants perceived this to impact the ability of the veterinarian to provide care to the horse, “I don’t know if I would use a vet, being an eventing barn, that didn’t have a pretty good knowledge of the sport and what they do out there.” Caretakers also described wanting the veterinarian to have an understanding of their expectations of the veterinarian and their financial situation. One caretaker expressed a way her veterinarian’s knowledge of her finances impacted the treatment options provided for the horse, “[The vet] said ‘I know a $1200 surgery is a bit out of what you would want to spend on this, we can look at other options’.”

Lastly, a number of caretakers wanted the veterinarian to recognize the caretaker’s relationship with their horse, including their unique knowledge of their horse, because it contributed to the veterinarian’s ability to provide care to the horse, “And they need the information [you have], because you know what - you do know your animals and how they act.
Without that information they’re going only to half treat them.” A few caretakers described being concerned their veterinarian would limit treatment options or pass judgment on the caretaker’s willingness to pay for care of the horse based on the veterinarian’s impressions of the caretaker’s financial situation. Further, there was discussion among the caretakers that they should be the one to make decisions regarding their horse’s care because they were the only one who could truly determine the appropriate path. Caretakers described how a veterinarian could gather this information through conversation during a given interaction, or the veterinarian may have ascertained information about their situation through previous interactions where the caretaker shared the information with the veterinarian.

A number of participants across all veterinarian focus groups discussed the importance of being aware of their client’s expectations of them, and of the client’s knowledge of their horse and veterinary care. A handful of veterinarian participants spoke about the expectations and knowledge of clients as a group, making generalizations about their clients based on their industry group or general personality attributes. A sentiment which garnered agreement among a few veterinarians was that racing clients required less communication and simply wanted procedures performed, whereas “riding horse” clients wanted more communication and a good relationship with their veterinarian, “racing I find they just want me to fix things … and the performance want me to diagnose things, and I find that very different.” There was also discussion of how the industries differed with respect to attitudes towards the financial aspects of care. Veterinarian participants’ general sentiment was that racetrack clients were more money-oriented than pleasure and performance horse clients. A couple of veterinarians commented that they assessed a client’s knowledge over time through their interactions, and the veterinarian’s awareness of the client’s knowledge influenced the veterinarian’s interpretation of the patient
history or the primary complaint provided by the client. A few participants mentioned reading clients as a strategy from which they gain knowledge of their clients, “I'm not going to assume that someone's one way, but I think you get to read them pretty quickly and what they expect and don't expect.”

In one mixed animal veterinarian focus group, the participants discussed tailoring recommendations to clients they had dealt with frequently and had a relationship with. One veterinarian in the focus group commented that he makes “more assumptions with regular clients,” regarding their choice of treatment options and knowledge of equine health, compared to clients he has not dealt with previously. The same veterinarian illustrated how this impacted treatment choices recommended, “You know… some people don’t do needles, so you pick the non-needle plan or you… know they’re not going to do things based on past experience so you throw that option right out the window.”

### 3.3 Horse-caretaker relationship

Caretakers in all industry groups discussed the manner and strength of the relationships they had with the horses they looked after. It was clear that caretakers across performance, pleasure, and racehorse industries highly valued their horses, and described their horses as “children” or “members of the family.” One caretaker shared, “it’s just like our children, … we’re with them more than some of our family members.” Several caretakers described the impact of how the veterinarian handles their horse: when the horse was treated with kindness and respect, the caretaker was more relaxed and felt more trust in the veterinarian, “And if people treated … your child well, you will feel more comfortable with them.” Similarly, another caretaker described how her attachment to her horse led her to care more about the way her horse was handled, “They’re important to our lives, and how they’re cared for, and how you feel
they’re being treated.”

Several caretakers spoke about how their relationship with their horse impacted the care they sought, and their desire for the veterinarian to take their relationship into account when providing care to the horse. One caretaker shared a comment her veterinarian made during a conversation regarding treatment options, “‘I know he’s really old and I know he’s really sick but I know you like him a lot’ and that was important for me to know that she knew that.” Another caretaker discussed her perspective on the recommendations made by veterinarians and how her horse’s role influenced the choices she was likely to make, “there are some vets I know, … they’ll take every case and say ‘let’s go top of the line’. Where I’ve got an old retired horse with a couple injuries, I’m sorry, I’m not going that route with her. She’s a pasture pet.”

The idea of knowing the relationship between horse and client was touched upon by a few veterinarians when discussing awareness of client expectations or client or industry stereotypes (e.g., racehorse clients are more financially oriented); however, it did not arise as an unique topic of conversation. One veterinarian commented that clients’ expectations might change in priority “by what type of horse [they have] and relationship they have to them.”

3.4 Communicate to Build the Relationship

Caretakers from all industry groups discussed their expectations with respect to communication from the veterinarian, as well as how communication impacts the relationship between themselves and the veterinarian. Several caretakers commented that the veterinarian talking to the caretaker was an essential component of a positive interaction, and contributed to the development of the veterinarian-caretaker relationship, “[communication], that establishes the rapport.” A few caretakers discussed a desire for their veterinarian to ask the “right questions” to acquire information about the personality of the horse, “Asking the right questions. Asking what
your horse likes and doesn’t like.” Another caretaker commented, “I’d rather they say ‘what is this horse like’ than walk in the stall, grab the halter, shove a needle in its neck and then say ‘you didn’t tell me this horse rears.’” Further, several caretakers spoke of their appreciation regarding being asked questions, as it provided an opportunity for them to demonstrate their knowledge and advocate for their horse. Also, these participants perceived that being asked questions demonstrated the veterinarian’s interest in the caretaker and their horse, “[the veterinarian] asked me great questions and she respected my opinion on the horse that I’ve had for 17 years, so, it was nice.” Caretakers also expressed that such conversations facilitated the caretaker’s involvement in the care of the horse by allowing them to contribute information they perceived to be necessary for the veterinarian to treat the horse appropriately, “sometimes to help your animal it makes you feel better that you can tell [the veterinarian] the details.” In addition to asking questions, following up, explaining, and educating the caretaker about the horse’s health and condition were mentioned by caretakers as types of communication that build a caretaker’s relationship with their veterinarian.

Communication arose as a topic of conversation in all veterinarian focus groups, although the impact of communication on the veterinarian-client relationship arose infrequently and did not develop into an area of conversation. The importance of veterinarians having good communication skills in general was addressed by a handful of participants, “if you don’t have good communication skills, you’re not going to be successful.” Follow up communication was mentioned by veterinarians as appreciated and expected by clients, “I have also had clients who maybe I didn’t get back to them, maybe I told them when I left their horse needed a booster and I said 3-4 weeks call, book an appointment. But I never called them, and I’ve had them become quite upset after.” A few participants from two mixed animal and one equine veterinarian focus
group commented on the importance of knowing about the sport in which the client participated, as this made it easier to talk and relate to clients.

3.5 Trust

A few caretakers from all industry groups spoke about the importance of having trust in their veterinarian; in one focus group, the caretaker not trusting the veterinarian was discussed as a reason for switching veterinarians, “Lack of trust, that would be the other reason I’d leave.” Trust was also discussed by several caretakers to be a necessary precursor to having a veterinarian provide care to their horse and initiating a relationship with a veterinarian. Another caretaker commented that the trust she had in her veterinarian allowed her to follow his or her advice. Caretakers described a number of factors that contributed to the caretaker trusting the veterinarian, which included having worked with the veterinarian before, a veterinarian with good communication skills, a veterinarian’s confidence, openness regarding costs, and perceived competency of the veterinarian, “if they are excellent at their job, then I would trust them and what they’re doing.”

All veterinarian focus groups discussed the importance of clients trusting them. A handful of veterinarians appeared to view the client trusting them as an essential quality of an effective veterinarian-client relationship. Trust was mentioned as a factor that could influence client compliance; when there was trust between client and veterinarian, it was commented that the client would be more likely to follow the recommendations made by the veterinarian. One veterinarian described how trust can influence a veterinarian-client interaction; her client had a horse undergoing treatment at a distant veterinary hospital and wanted her to examine the radiographs because the client did not trust the veterinarians at the other hospital, “[The client] spoke to eight different vets across the United States and they don’t trust these vets who probably
have more experience than I do, they want me to look at the x-rays and call [the veterinarian at the hospital where the horse was] and tell him what we want done.” Several veterinarians discussed earning a client’s trust during a key interaction, often when the veterinarian fixed a problem or proved his or her worth by doing something correctly in the eyes of the client. One veterinarian commented that she could “almost identify the situations with each owner where I did something right in their eyes and now they’re fine with me coming out.”

3.6 Stall-side manner

All caretaker industry groups spoke about the various attitudes and personality traits demonstrated by veterinarians. The veterinarian’s attitude and manner were discussed to be important to caretakers for multiple reasons. A number of caretakers described how the veterinarians’ “stall-side” manner could influence their decision to use a particular veterinarian; those with a poor “stall-side” manner were less likely to be used. A few participants from the racing and performance horse discussions indicated they were willing to use a veterinarian with poor “stall-side” manner if the veterinarian had the expertise they deemed necessary for a specific condition. These caretakers also indicated they would not use those veterinarians on a regular basis. Several caretakers also commented on how the veterinarian’s manner influenced their emotional state, such as through the provision of reassurance or simply being a positive interaction in their day, “they always make me feel like I’m the most important client of the day.” A few caretakers discussed caretaker-veterinarian compatibility as a consequence of the veterinarian’s “stall-side” manner.

Many caretakers described attributes they expected or desired in a veterinarian using words such as nonjudgmental, “reassuring”, “compassionate”, “down-to-earth”, “passionate”, “interested”, “professional”, “team” player, and “patient.” A caretaker commented on the
necessity of the veterinarian having a good “stall-side” manner, “One thing I’ve found over the years … is [veterinarians] need people skills as well as the animal skills.” A number of caretakers spoke about wanting to be treated with respect, particularly with regard to their choices, their limits on treatment, their knowledge, their time, as well as their use of other veterinarians, “I think you avoid dealing with a vet that doesn’t respect you.” Several caretakers discussed an expectation for a veterinarian to be ethical and “honest”, as well as being willing to “admit when they didn’t know.” Another trait discussed by many caretakers was “confidence”; one caretaker commented, “it really makes a client nervous when [the veterinarian is] wishy washy.” Several negative and undesirable traits were discussed, using words such as egotistical, dismissive, and “condescending.”

All veterinarian focus groups discussed the personality attributes and attitudes they perceived that clients expect them to possess and demonstrate. These traits included: professional, “compassionate”, nonjudgmental, “reassuring”, “interested”, “confident”, and “honesty when you don’t know.” A number of veterinarians commented that clients expected them to have a good stall-side manner or positive affective state, “to be approachable, to be able to explain.” Several veterinarians said this mattered more to companion animal-type horse clients than to racing clients. Several veterinarians spoke about clients expecting them to portray confidence; there was discussion about this expectation stemming from the belief that the veterinarian portraying confidence would increase the trust the client placed in them. There was also discussion by a few veterinarians that clients judged their competency based on the comfort or confidence they displayed when performing procedures, “If you’re showing a lack of confidence, then they’re going to pick up on that … and throw you under the bus.” A number of veterinarians expressed that clients expect the veterinarian to be comfortable with a client
consulting other veterinarians; as one veterinarian commented, “They expect you to respect that they’re using other vets.” A few veterinarians commented on clients who wanted 100% loyalty from their veterinarian, including being available at all times to provide care, “they expect total loyalty from us, they want this vet all the time”; they contrasted this with the fact that these same clients used multiple veterinarians to provide care to their horses and expected the veterinarian to accept this. Several veterinarians spoke of clients wanting them to be interested and engaged with them and their horse, “passion and interest in … the owner and their horse.” Additionally, a few veterinarians commented that it was important to not judge their clients or make them feel stupid. For example, one veterinarian said, “you don’t talk down to them.” In the two equine veterinarian groups, the idea of treating clients with respect arose. Willingness to apologize was discussed in one focus group as being important; with one veterinarian commenting that often when “clients are upset over things, [they] mostly want to hear the words ‘I’m sorry’.”

All veterinarian focus groups discussed the personality traits and attributes of clients that made the relationship easy, and those of clients with whom they found it challenging to work. A number of veterinarians described desirable traits of clients, these included “practical”, “compliant”, and “pleasant”. In one mixed animal veterinarian focus group, there was agreement that participants “enjoy[ed] the reasonable client”, which was described in the ensuing discussion to include “compliant” and “will[ing to] work with you on something”. In contrast, there was also discussion about traits clients demonstrated that veterinarians found difficult to deal with, such as lack of willingness to consider alternate opinions, lack of loyalty, and untrusting. Two equine and one mixed animal veterinarian focus group discussed how the traits of the client also contributed to the compatibility between veterinarian and client. One veterinarian suggested that compatibility was one of the reasons that some clients want to use one veterinarian, not multiple
veterinarians. It was commented that good veterinarian-client relationships occur when the veterinarian and client are similar types of people, “I also think you attract the kind of clients that you yourself are”.

3.7 Veterinarian Challenges with regard to Working with Clients

Veterinarians from all focus groups discussed a number of challenges with regards to the relationships they have with clients. In two equine and one mixed animal veterinarian focus groups, participants discussed the difficulty in managing differences of opinion between the client and the veterinarian regarding the problem or diagnosis of the horse. One veterinarian spoke about “hav[ing] two problems, the owner/trainer and you have the horse.” Another challenge raised by one mixed animal veterinarian group was working with multiple caretakers and absentee owners; in both situations, participants spoke about difficulty with obtaining consent for a procedure, and in garnering consistent, accurate follow up information regarding the horse’s progress.

One equine and two mixed animal veterinarian focus groups discussed having difficulty dealing with the opinions and traditions of the equine community. Several veterinarians commented that some clients would gossip about the veterinarian or the treatment he or she had provided which would often undermine the veterinarian’s competency and reputation, “I know in the 30 minutes it takes to drive … back to the clinic, all three of them will have called my boss … to let them know what I did or didn’t do.” Further, the expectations of a given equine community, or sport-specific group, were found to be a challenge to manage because they were difficult to predict. Both of these group level factors (i.e., equine community and sport-specific expectations) were discussed as impacting the interaction and adding difficulty to working with a client because the client had preconceived notions of what they wanted, what work should be
done, or negative impressions of the veterinarian’s skill level if they did not have the knowledge and background the client deemed necessary.

4. Discussion

The present study identified a number of expectations caretakers have of equine veterinarians with respect to the veterinarian-caretaker relationship. Caretakers expressed that the relationship they have with their veterinarian provides a framework for the interaction, and influences the care the horse is to receive, and impacts the outcomes of care. This finding supports the assertion by veterinary professional organizations that an established veterinarian-client-patient relationship is necessary for a veterinarian to provide care to an animal [a,c]. The finding is also supported by research in companion animal medicine, which has demonstrated that the strength of the veterinarian-client relationship is positively associated with clients’ adherence to veterinary healthcare recommendations [30]. Further, research in human healthcare has found that the strength of the physician-patient relationship has been associated with patients’ adherence to recommendations [31]. Research from companion animal and human medicine underscore the findings of the present study, which describes the importance of the veterinarian-client relationship. Equine veterinarians should consider how their relationships with clients may impact the outcomes of care, and strive to develop strong veterinarian-client relationships such that patient care can be optimized.

Caretakers in the present study wanted veterinarians to understand them and take their unique situation into account. This suggests that veterinarians should investigate and learn about the unique experiences and circumstances of their clients. Research has demonstrated that the knowledge one has of another person gained through communication with the other is positively correlated with the strength of relationship between the two parties [32]. Further, a recent study
in human medicine pertaining to end-of-life discussions found a physician’s knowledge of the patient, including the patient’s background, facilitated the patient’s feelings of trust and confidence in the physician [33]. In human medicine, investigating and exploring the patient’s perspective has been identified to be a critical component of a physician-patient interaction, as this provides the physician with information necessary to provide the patient with care that addresses their psychological and social needs, as well as their biomedical needs [11]. Based on the role a veterinarian’s understanding of their client is likely to have in establishing a successful veterinarian-client relationship, it would behoove equine veterinarians to consider the importance of gathering information about the client, their horse and their circumstances in order to foster a positive veterinarian-client relationship and in turn build clients’ trust.

In the current study, caretakers described “asking the right questions” as a way for veterinarians to gain the information about a client and their horse that they perceived to be necessary to treat them appropriately. This parallels research findings in companion animal medicine where two-way communication, including “asking the right questions”, was an expectation of pet owners [23]. What the “right questions” are is likely to vary with each client and horse; however, the use of open-ended questions, which provide an opportunity for the client to share information they feel is relevant without limitation are likely to be beneficial [34]. Therefore, the use of open-ended questions can be a way to meet the expectations caretakers in the current study had for veterinarians to understand the caretaker’s unique situation. In human and veterinary medicine, the use of open-ended questions in medical interviews has been promoted to improve information gathering [13, 11,20,23]. In a study of small-animal veterinarian-client interactions, one quarter of all appointments did not contain a single open-ended question suggesting there are likely opportunities to use this communication skill to foster
client relationships more often [20]. Given the importance caretakers attributed to the questions asked of them by their veterinarian and the information caretakers desired for veterinarians to attain, it would serve equine veterinarians well to consider the frequency and type of questions they pose to clients, and, when possible, consider the use of open-ended questions to learn about their clients.

In the present study, the relationship caretakers had with their horses influenced their expectations of the veterinarian-horse interactions and relationship, as well as the level of care they desire for their horse. It has been suggested that the physician-parent-child interaction is comparable to the veterinarian-client-patient interaction [35]. In human paediatric medicine, parent satisfaction with care provided to their children in emergency departments has been shown in one study to be influenced by the healthcare provider-child interaction, as well as the amount and quality of information provided to the parents [36]. In another study, parent satisfaction was found to be associated with the parent’s perception that doctors and nurses worked well together (e.g., receiving consistent explanations of their child’s condition, not having to answer the same questions repeatedly) [37]. There are many similarities between paediatric medicine and veterinary medicine including the fact patients are not able to advocate for themselves. Learning from the understanding the characteristics of what parents desire, with regard to the healthcare experience of their children, can help increase awareness of what may also be important to veterinary clients. In companion animal medicine, research suggests that clients that are highly bonded to their pet are more likely to seek higher levels of care, follow recommendations, and are less concerned with costs of care [30]. It is important for equine veterinarians to consider exploring the relationship the caretaker has with their horse, including the type of activities the caretaker and horse are involved in, as this will improve the
veterinarian’s ability to interact with the horse in a way the client is comfortable with, and provides a strong foundation from which recommendations appropriate for the client and horse can be made.

Veterinarian participants in the present study discussed their perception that client trust is essential to providing effective veterinary care; and caretakers indicated that trusting their veterinarian was necessary in order for them to have a veterinarian provide their horse with care. Based on the concept of interpersonal trust from a human medical context, we can extrapolate trust in the veterinary medical context to be the acceptance of a situation in which the veterinary client believes that the veterinarian will behave in the best interests of the veterinary client and patient [38]. In human medicine, research has demonstrated that patient trust in the physician impacts patient outcomes including improved patient adherence [10,31], symptom improvement [10], and increased patient satisfaction [9]. Communication [38] (e.g., empathy [39], encouraging and answering questions [38], explaining [38]), demonstrating competency [38], and being comforting and caring [38] have been found to increase patient trust in the physician. The findings of the current study that an equine caretaker’s trust in a veterinarian is a crucial component of an effective veterinarian-client relationship is consistent with the literature in human medicine. Equine veterinarians should explore opportunities to enhance their communications and interactions with clients with the intention of strengthening clients’ trust in them, such that client and patient outcomes can be optimized.

Both caretaker and veterinarian participants described how the personality traits and manner of the other could define their overall compatibility. In human medicine, the degree of interpersonal compatibility between doctor and patient has been positively correlated with patient health outcomes [40]. It has been found when a physician’s approach to providing care is
patient-centered or agrees with the approach desired by the patient, increased patient satisfaction results [41]. Patient-centered care is a paradigm of human medical care which respects and values the uniqueness of each individual patient, and that promotes the need for physicians to be flexible in their approach, such that they can meet the patient’s needs [11]. In veterinary medicine, the patient-centered approach has been described as relationship-centered care [35,42] and has been stated to involve the integration of respect for the client’s position, context, and thoughts, as well as the role of the animal in the client’s life, into the care provided [35]. Research in companion animal practice has shown that relationship-centered care is positively associated with clients’ adherence to veterinary healthcare recommendations [25]. Through interaction between the veterinarian and client, the relationship-centered approach has the potential to decrease any discordance between the client and veterinarian created by differences in personality. The veterinarian can then use their knowledge of the client to guide the interaction with the client and the care the horse receives in a way that attends to the client’s needs and expectations. Equine veterinarians should consider the benefit of utilizing a relationship-centered approach to care, including investigating the client’s goals for the appointment and the type of activities they engage in with their horse, as doing so could mitigate challenges that could arise due to interpersonal differences.

Both caretakers and veterinarians spoke about how sport-specific knowledge can influence veterinarian-client interactions. Caretakers in the current study expressed an expectation that their veterinarian have knowledge of the equine sport in which they participated, while veterinarians commented that knowing about the client’s sport could facilitate conversation. Veterinarians also identified clients from specific sport or community groups, whom held certain expectations for care based on their sport, were challenging to work with
because their expectations were difficult to predict or know. Participating veterinarians identified this as an unpleasant situation in practice, which is consistent with what has been found in human medicine, where physicians have identified being unable to meet the patient’s requests challenging, and less satisfying [43]. Research has demonstrated that patients’ expectations may not be evident based on the reason for the visit, and that often it is necessary to explicitly ask the patient about their expectations in order to discover them [34]. Further, the exploration of patients’ expectations, even if they were not met, was found to increase patient satisfaction and improve patient adherence to the plan for care [34]. Exploring the client’s expectations through the use of open-ended questions may help to mediate any potential areas of discordance between the veterinarian and client surrounding expectations of work to be done, because the client’s needs and expectations would be investigated, which can enhance partnership and allow the veterinarian to actively manage the expectations.

In the present study, the use of focus group methodology facilitated the unbounded exploration of caretakers’ expectations of equine veterinarians, and equine veterinarians’ perceptions of caretakers’ expectations. Focus group methodology is of particular value when little is known about a topic area as it generates data from participants’ thoughts, feelings and experiences. One potential limitation of this approach is the risk of selection bias. This may have resulted in the recruitment of individuals that have polarized views on the subject matter, that are not shared by the average equine caretaker. By using multiple recruitment strategies (on line, posters, etc.) an attempt was made to maximize the variation of individuals aware of the study and thus inclusion of participants with diverse perspectives. Another important consideration for qualitative research is that the results are not meant to be generalized to all situations; the purpose of this methodology is to gain a deep understanding of a topic about which little is
known. Careful consideration needs to be given to the findings of the current study in terms of their application to similar contexts beyond the current study population.

5. Conclusion

In conclusion, the results of this study highlight the importance of the veterinarian-client relationship to equine caretakers and equine veterinarians successful interactions. Components of and contributors to the equine veterinarian-client relationship include the veterinarian’s understanding and consideration of the client, the use of communication to build the relationship, the trust the client has in the veterinarian, and the personality and manner of the client and veterinarian. The purposeful use of communication skills, such as open-ended question to support understanding of the client and rapport building is likely to be beneficial as equine veterinarians strive to form strong relationships with their clients. Strong veterinarian-client relationships are likely to benefit the horse, caretaker and veterinarian. Future research should consider investigating linkages between the veterinarian-client relationship and the outcomes of veterinary care for equine patients, client and practitioners.
Footnotes


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Chapter 4

Survey of Clients’ Satisfaction with their Most Recent Equine Veterinary Appointment

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Abstract

Objective – To identify factors associated with clients’ satisfaction with their most recent appointment with an equine veterinarian

Design – Internet-based survey

Participants – 1495 completed surveys

Procedures – Survey items were developed based on the results of a focus group study on equine caretakers’ expectations of equine veterinarians. Participants were recruited through social media and classifieds websites. Analysis of the survey data included generating descriptive statistics and developing a logistic regression model for the satisfaction outcome.

Results – The final equine satisfaction instrument consisted of 13 items. Clients’ interaction-specific satisfaction with their most recent equine veterinary interaction had a median score of 95 out of 100 (mean 91; range 3-100). Respondents were least satisfied with an item regarding communication about the cost of care (median 90, mean 78.3), and most satisfied with the veterinarians’ horse sense (median 100, mean 92.3). Client age, client-horse bond, and frequency of use of the veterinarian was positively associated with client satisfaction, while days since the veterinary visit and the veterinarian’s perceived age were found to have a negative association with client satisfaction.

Conclusions – Equine clients are generally satisfied with their most recent interactions with equine veterinarians. Ensuring clients are aware of follow-up plans and communicating clearly about what they can expect may assist equine veterinarians in mitigating any post-interaction decrease in satisfaction as time since the appointment passes. Recognizing and incorporating the relationship between client and horse into the care offered is likely to contribute to the veterinarian’s ability to provide care that satisfies their clients.
1. Introduction

The shift in human healthcare towards patient and relationship-centered care models, both of which involve a focus on the patient’s experience of health and disease, has led to increased consideration given to patient-related outcomes, such as quality of life and patient satisfaction [1]. To this end, patient satisfaction is now considered to be an important measure of healthcare quality [2-5] and is routinely used in the evaluation of health care services [6]. Further, patient satisfaction has been shown to be positively correlated with patient adherence [7] and patient loyalty to a given physician [8] as well as negatively correlated with malpractice lawsuits [7]. Comparatively speaking, little is known about client satisfaction in veterinary medicine, particularly equine veterinary medicine.

In veterinary medicine, the client is a proxy for the patient’s perspective, as they are the consumer of the care provided; and as such, they are the relevant party to evaluate satisfaction with care [9]. Client satisfaction is an important component of veterinary practice [9] and has been found to be a major reason clients continue to use a veterinarian [10]. Loomans [11] investigated equine client dissatisfaction as determined by court cases against equine practitioners in the Netherlands. The majority of valid complaints against veterinarians were related to inadequate attention or incompleteness of work [11]. A follow up survey of sport horse owners’ and trainers’ satisfaction with equine sports medicine in the Netherlands demonstrated in general that there was an overall high level of satisfaction with professional equine veterinary skills as rated by horse owners [12]. One of the limitations of the study was that it only investigated satisfaction with the technical veterinary skills as opposed to the entire interaction, which would include components such as veterinarian-client communication, horse handling, and cost of care. In light of recent research that describes the equine caretaker-veterinarian
relationship as an area in which caretakers have specific expectations (Chapter 3), the inclusion of other aspects of the equine veterinarian-client interactions, such as veterinarian-client relationship and communication, is important when measuring equine client satisfaction with a given interaction.

Client age and sex are correlated with ratings of client satisfaction in companion animal medicine [9, 13]. Companion animal client satisfaction has also been positively associated with client adherence to recommendations [14]. In the human medical field patient satisfaction has been conceptualized as “the degree to which a patient feels they have received high-quality care” [2]. The factors that have been demonstrated to influence patients’ ratings of satisfaction include: age [2,15], unmet expectations [2,15], doctor-patient communication [2,15,16], outcomes of care [2], and health status [5]. These findings from companion animal and human medicine can be used to help guide the development of research into client satisfaction in equine veterinary medicine.

The objective of the current study was to identify factors that contribute to equine client satisfaction in the context of a specific veterinarian-client interaction.

2. Material and Methods

This study was reviewed and received approval from the University of Guelph Research Ethics Board (REB 13MY013).

2.1 Survey Participants

An internet-based snowball recruitment strategy was employed to recruit participants for the final administration of the survey; this involved the identification of certain people or groups to act as seeds within the horse-owning population, who then were asked to identify or recruit additional participants [17,18]. To identify seeds within the horse-owning population, the author
contacted equine interest groups that had an online or social media presence, and requested they post a notice about the survey (Appendix B.1). The same survey notice was posted to the personal Facebook page of the author. The post included details of research participation, a link to the survey, and a request that interested individuals share the survey notice on their Facebook walls. A separate survey notice was also posted on classified websites in multiple cities and towns across Canada, and interested individuals contacted the author via email for the link to the survey.

Demographic information was requested from participants as part of the survey, including: Age (years), sex (male, female), education (< Grade 12, High School, College/University, Postgraduate Degree), and average household income (<$35,000, $36,000-55,000, $56,000-75,000, $76,000-100,000, >$100,000). Information specific to the client’s most recent interaction with a veterinarian was requested including perceived age of the veterinarian (years), sex of the veterinarian (male, female), days since most recent visit, reason for visit (check all that apply: routine work, recheck, non-emergency illness, emergency illness, other), relationship to the horse(s) that received care during the visit (check all that apply: owner, trainer, groom, barn manager, rider, other), primary industry participated in (English performance, Western performance, racehorses, pleasure, other), overall times per year they work with an equine veterinarian, and frequency of use of this veterinarian (regularly, sometimes, never before). If they answered “regularly” or “sometimes” to the question regarding frequency of use of this veterinarian, then they were asked for the number of times per year they worked with the veterinarian and how many years they had worked with the veterinarian.

2.2 Development of the Interaction-specific Client Satisfaction Questionnaire

An interaction-specific client satisfaction (ISCS) instrument was developed specifically
to assess client’s satisfaction at some point following an equine veterinarian-client interaction. Survey development consisted of four phases. The first phase consisted of a focus group study with equine caretakers that informed the development of the questionnaire (Chapters 2 and 3). In brief, focus group interviews (n=9) were carried out with caretakers from the racehorse (n=3), performance horse (n=3), and pleasure horse (n=3) industries; a total of 46 caretakers participated. Verbatim transcripts of the focus groups were analyzed using thematic analysis, which identified common patterns of responses in the data. The themes identified were veterinarian-client relationship, veterinarian-horse relationship, financial aspects of veterinary care, veterinarian-client communication, veterinarian’s ability, and “customer service” (Chapters 2 and 3).

Phase II consisted of initial item generation and preliminary item reduction. Initial item generation was based on a review of the caretaker transcripts and results of the thematic analysis. The use of focus group data to develop items supports the face and content validity of the instrument [19]. The response format for ISCS items was a visual analogue scale, with 1 being “Completely Dissatisfied” and 100 being “Completely Satisfied”. These initial items were then pretested with fourteen horse owners, trainers, and riders known to the author, who provided content expertise as well as by the research team (Drs. Jason Coe, Joanne Hewson and Michael Meehan) who provided content and methodological expertise; qualitative feedback on the clarity, comprehensibility, and face validity of items was requested from reviewers. The questionnaire was then revised based on the feedback.

Phase III involved a pilot test of the questionnaire delivered via an online tool (Limesurvey, Schmitz, 2012, Hamburg, Germany). A handful of primary care equine veterinarians known to the author distributed a survey recruitment postcard directly to their
clients following appointments, or via a bulk email sent to all clients of the practice for whom they had an email address. The postcard invited clients who had had an appointment with the veterinarian in the past three months to complete the survey. Preliminary descriptive statistics and reliability analysis were generated in SPSS v. 22 (IBM Corp., Armonk, NY) based on the responses. The survey was further revised based on the analysis of the pilot test data. Item-total correlations were generated; items with an item-total correlation <0.2 were eliminated, and those with an item-total correlation >0.8 were reviewed and if they were identified redundant they were eliminated [19].

Phase IV involved the psychometric evaluation of the questionnaire using data collected from the final version of the questionnaire developed in the current study, statistical analysis was generated in SPSS v. 22 (IBM Corp., Armonk, NY). Again, the survey was delivered using an online tool (Limesurvey, Schmitz 2012, Hamburg, Germany). In addition to the ISCS items, seven global questions (“I would consider switching primary care veterinarians”, “I would be completely happy to have this veterinarian out to look after the horse(s) again”, “I followed the treatment recommendations of this veterinarian”, “The veterinarian’s approach was a good fit for me and the horse(s)”, “The veterinarian was a good communicator”, and “The veterinarian took their time with the horse(s)”, and “Based on your most recent interaction, overall how satisfied were you with the veterinarian?”) were asked; these provided a measure against which construct validity of the ISCS could be evaluated. The first six global questions asked respondents to indicate their agreement on a visual analogue scale (1=Completely Disagree, 100=Completely Agree), and the response format for the last global question was a visual analogue scale with 1 being “Not at all satisfied” and 100 being “Completely satisfied.” As a consequence of the survey platform used to gather data, if the slider indicating the response value on the visual
analogue scale was not moved from its starting position, a value of 50 was assigned; this was treated as a missing value for analysis purposes, as there was no way to determine whether the respondent intended to answer the question or not.

Exploratory factor analysis was performed on the ISCS items to investigate the presence of underlying concepts, or multidimensionality [19]. Factor analysis was performed without rotation. Factor retention was determined by scree plot and confirmed by comprehensibility of the factor, Eigenvalues >1 [19] and parallel analysis. The Monte Carlo principal component analysis simulation (Monte Carlo PCA for Parallel Analysis, Watkins, 2000) was used to produce criterion values (average Eigenvalues for 100 randomly generated samples) such that parallel analysis could be performed. Parallel analysis has been promoted to be the most accurate approach to determining how many components to retain [20].

Spearman correlations, item-total correlations and Cronbach’s α were examined to evaluate internal consistency and reliability of the ISCS items. For questionnaires consisting of more than 11 items, with a sample size of greater than 300, a Cronbach’s alpha must be 0.90 or higher to be considered ‘good’ [19]. Construct validity was investigated by examining Spearman correlations of the ISCS items to the seven global satisfaction questions; moderate-high correlation coefficients would represent good construct validity.

2.3 Statistical Analysis

SPSS v.22 (IBM Corp., Armonk, NY) was used to generate descriptive statistics and Spearman correlations. An overall satisfaction score (OSS) for each respondent was calculated by taking the mean of the ISCS items. A variable was also generated to represent the number of ISCS items a respondent was missing. Descriptive statistics were performed on the independent variables. Frequency counts and percentages were generated for categorical variables: industry,
education, average household income, frequency of veterinarian use, reason for visit, and veterinarian gender. Mean, median, standard deviation, minimum and maximum were performed for continuous variables (ISCS items, OSS, global satisfaction items, client age, perceived veterinarian age, client-horse bond, days since visit, number of horses cared for, number of horses owned/leased, years worked with this veterinarian, number of visits per year with this veterinarian, overall veterinarian visits per year). The OSS of those respondents with missing values for ISCS items and those that were not missing any values using a one-way ANOVA were compared. This test was selected because its performance is robust for datasets with non-normal distributions. Spearman correlations were evaluated between the demographic items considered for inclusion in model building to assess independence. A histogram was generated and a Shapiro-Wilk test was performed to assess normality of the OSS. The OSS was dichotomized, an OSS score above or equal to the median OSS was classified as satisfied and below the median OSS was classified less satisfied.

Logistic regression analysis was conducted using SAS v9.2 (SAS Institute Inc., Cary, N.C.) to assess factors associated with an equine client being satisfied or not satisfied. Independent variables included in the model-building process were: industry, education, average household income, veterinarian gender, client gender, frequency of veterinarian use, years involved with horses, number of horses owned/leased, number of horses cared for, client age, client-horse bond, days since visit, perceived veterinarian age, veterinarian use per year, emergency visit, years worked with veterinarian, overall veterinarian visits per year. Initially, all independent variables were placed in the maximum logistic model. Model building was completed using a manual backward elimination approach, using a significance level of P<0.05 (α-level 0.05). Non-significant variables were removed one at a time, beginning with the variable
with the highest p-value. Once all non-significant main effects were removed, interaction terms comprised of the remaining main effects that were socially plausible were investigated. When all remaining variables and interactions in the model were significant at P<0.05, removed main effect variables were reintroduced into the model one at a time in the order of first removed to last removed to determine if they were now significant. The final model was assessed for fit, outliers, and high leverage observations by examination of graphical plots of Pearson residuals. Outliers and high leverage observations were examined for patterns or errors in data entry. The influence of outliers and high leverage observations were investigated by running the model with the given observations removed. Potential differences between the data of respondents included in the final model and those not were investigated by performing Mann-Whitney tests for continuous variables and Chi-Square test for the categorical variables included in the final model; P-value of 0.01 (α-level 0.01) was used to reduce the likelihood of type 1 error due to multiple comparisons.

3. Results

3.1 Study participants

A total of 1577 respondents contributed data to this study. Discrepancies in the number of respondents as results are presented are due to missing data. The average age of respondents was 39 years (median 38, range 18-76, n=1481). Forty-nine men and 1421 women (n=1470) participated. The vast majority (1398) of respondents identified themselves as horse owners, 449 as trainers, 311 as grooms, 703 as riders, 350 as barn managers and 66 as other; these categories were not mutually exclusive. Additional demographic information is available in Tables 4.1 and 4.2.

3.2 Development of the Interaction-specific Client Satisfaction Questionnaire
One hundred and sixty-six items resulted from the initial item generation (Phase II). The satisfaction scale was then reduced to 39 items during the pretest with fourteen horse owners, trainers, and riders known to the author. Following the pilot of the ISCS questionnaire, 13 items remained.

### 3.3 Questionnaire Assessment

Based on the administration of the final questionnaire, the two items participants were least satisfied with were, “How the veterinarian communicated with you about cost” (median 90, mean 78.3, SD 28.29, range 1-100, n=1399), and “The veterinarian’s consideration of your budget” (median 92, mean 81.33, SD 25.84, range 1-100, n=1438). The two items participants were most satisfied with were “The veterinarian’s horse sense” (median 100, mean 92.34, SD 15.58, range 1-100, n=1535) and “The veterinarian’s understanding of how the job of the horse(s) impacts their health” (median 100, mean 91.67, SD 15.66, range 1-100, n=1509). The median of the OSS was 94.85 (mean 91.01, SD 11.53, range 3.15-100, n=1077). On the global question “Based on your most recent interaction, overall how satisfied were you with the veterinarian?” the median was 97 (mean 88.49, SD 20.46, range 1-100, n=1474). Descriptive statistics for the ICSC items and global satisfaction items are presented in Table 4.3.

The Cronbach’s alpha for the ISCS items was 0.93 and the item-total correlations for the ISCS items ranged from 0.553-0.798. Both the high Cronbach’s alpha and moderate-high inter-item correlations are indicative of high levels of reliability and good levels of internal validity [19]. Factor analysis revealed that the ICSC items loaded on one factor representing client satisfaction with an interaction with an equine veterinarian determined by scree plot and supported by the criterion values generated by principal component analysis and evaluation of the eigenvalues. The finding of one factor is consistent with validated instruments in veterinary
and human medicine measuring client and patient satisfaction, respectively \([9,21,22]\), and supports the validity of the questionnaire. Factor loadings are provided in Table 4.4. Spearman correlations between OSS and the six positively scored global questions ranged from 0.389-0.759 and from -0.580- -0.389 for the one reverse scored global question and were all significant \(p<0.01\) \((n=961)\), further supporting the construct validity of the questionnaire \([19]\). Overall, the construct validity of the survey was supported by the results of the psychometric tests.

3.4 Client Satisfaction Model

A histogram of the OSS was examined and the distribution was found to be non-normal, this was confirmed via a Shapiro-Wilk test that was significant \((p<0.01)\). Due to a lack of normality of the data, the outcome of OSS was dichotomized and a logistic regression was performed. The OSS of the respondents with missing values for the ISCS items and those that were not missing items were identified to be different, and therefore we did not include those respondents with missing ISCS values in model building. The final logistic regression model \((n=964)\) for the dichotomous OSS outcome included the following variables: age, client-horse bond, frequency of veterinarian use, days since visit, and perceived veterinarian age (Table 4.5). There were 4 outliers identified on graphical observation of the residual plots. When these respondents were removed, there was no impact on the variables that were significant in the model, or the direction and magnitude of effect. Given there was no clear reason to remove the outliers, they were retained in the final model. Comparing data of respondents in the model with data of respondents not included in the model due to missing data, significant differences \((p<0.01)\) were found for the variables of client gender, and veterinarian gender. A separate logistic regression model for respondents with missing satisfaction items was generated (Appendix B.4).
4. Discussion

Overall, our findings indicate that participating equine clients were very satisfied with their most recent veterinarian-client interaction recalled. This is consistent with findings of a 2013 American Association of Equine Practitioners survey in which 85% of horse owners and trainers rated their satisfaction with their veterinarian as 6 or 7 on a 7-point Likert scale of satisfaction [a]. When data is highly skewed, looking at the relative differences in responses and whether they be above or below the average can be one way to detect important variation and areas that may be driving dissatisfaction. Respondents were least satisfied with the items, “How the veterinarian communicated with you about cost” and “The veterinarian’s consideration of your budget.” Similarly, research in companion animal found that items pertaining to cost were those with which clients rated being least satisfied [9]. Cost discussions have been recognized as an important component of veterinary medicine, in both equine (Chapter 2) and companion animal medicine [23-25].

The use of communication skills, such as empathy, and describing the benefit of the treatment to the pet have been promoted as effective ways to communicate with clients about cost [23-25]. Empathy is a communication skill that involves the intellectual understanding of another person’s experience or feelings, which acts as the basis for a verbal or non-verbal communication of support to that person [26]. This can be of benefit in cost discussions because veterinarians and pet owners have been found to perceive value differently in companion animal medicine [23]. When discussing costs with clients, veterinarians primarily described why the cost of care was what it was; this contrasts with what clients wanted to hear, which related to the outcome of care and their pet’s well-being [23]. At this point, whether this difference holds true for equine veterinarians and caretakers is not known. However, equine caretakers in a recent
focus group study described how their relationship with their horse played an important role in the treatment decisions they made for their horse, and influenced the resources they were willing to devote (Chapter 2). Equine veterinarians can use the findings from companion animal medicine and related findings from equine research to guide how they discuss costs with clients.

In the current study, client satisfaction with their most recent veterinarian interaction was found to increase with client age, which parallels findings in human medicine [27], and is similar to what has been found in companion-animal medicine [9]. While equine veterinarians cannot change a client’s age, they can ensure that they have investigated the individual expectations of each client, as meeting client expectations has been found to increase client satisfaction in human medicine [7]. Clients’ expectations can be explored directly by asking clients about their needs and expectations of veterinary care.

Further, clients in the current study that used a veterinarian more frequently were more satisfied, which is consistent with research from companion animal medicine [b] and human medicine that found client and patient satisfaction respectively were increased when the interaction was with the same care provider over time [28,29]. Similarly, a recent focus group study investigating equine caretakers’ expectations found the equine veterinarian-caretaker relationship to be an expectation of equine caretakers (Chapter 3). It is likely that the frequency of veterinarian-client interaction is tied to the strength of the veterinarian-client relationship. Equine veterinarians can consider increasing the frequency of their interactions, such as by ensuring that in multi-veterinarian practices efforts are made to establish a regular relationship with an equine client when possible.

The results indicate that a client’s satisfaction decreases as the time since the appointment increases, which is consistent with findings from human medical research that patient
satisfaction decreases as the time since the appointment increases [30]. Research indicates that the determinants of patient satisfaction change as time since the appointment increases [15]. Immediate post-visit ratings of patient satisfaction have been shown to be associated with unmet expectations, doctor-patient communication, and anticipated length of symptom persistence, whereas at 2 weeks and 3 months post visit, symptom resolution and unmet expectations have been shown to influence patient satisfaction [31]. The influence of time since the appointment on client satisfaction highlights the need to ensure clients understand what they can expect following their appointment with regard to the horse’s progress, and what follow-up care or communication between client and veterinarian is appropriate. The use of safety-netting, a clinical communication skill [26], may benefit equine veterinarians as they strive to create plans for follow-up with clients. Safety-netting involves the veterinarian speaking to clients about when they should get in touch with them in the case events arise following the appointment that were unexpected or not discussed. This discussion should include what may happen if things do not go according to plan or what the occurrence of a certain clinical sign may mean [26].

The findings of the present study indicate that client satisfaction decreases with perceived veterinarian age. The reason for this relationship is unclear, however, one plausible explanation may be the inclusion of nontechnical skills, such as communication skills training, in the veterinary school curriculum over the past decade or more [32,33]. As such, differences may exist in the ways in which younger veterinarians communicate with and relate to their clients compared to seasoned practitioners. Additional backing for the differences in veterinarian’s approaches is a paradigm shift in the role of the veterinarian; it has been suggested that veterinarians’ role has expanded to include supporting the human-animal bond and the mental health and wellbeing of their clients [34]. As younger veterinarians are more likely to be
influenced by paradigm shifts in the industry, this may contribute to the difference noted in client satisfaction with perceived veterinarian age. Regardless of the veterinarian’s age, findings of the current study suggest equine veterinarians should consider how well they understand the individual needs of their clients and adapt their approach according to the specific client they are working with.

Lastly, the results indicate that the strength of a client’s bond with their horse led to increased client satisfaction. The bond clients have with their pet has been associated with increased adherence to recommendations, increased frequency of veterinarian use, and more likely to pursue preventative care for their pet in companion animal medicine [35]. Equine caretakers in a recent focus group study (Chapter 2 and 3) also described how their expectations and needs of equine veterinarians are influenced by their relationship with their horse. Given the importance of the client-horse bond, it would behoove equine veterinarians to learn about the relationship and attachment their clients have with their horse, as this will allow them to take this into account when discussing recommendations and working with their clients.

In the current study, there were a number of incomplete surveys, predominantly due to missing values for the ISCS items. One reason for this may have been that the component of the interaction the question was seeking information about did not occur, and as such, the client was unable to evaluate it. In future research, the inclusion of an ‘unable to assess’ option would permit the determination of whether the missing value is due to its lack of occurrence in the interaction or whether it was a truly missing value. The current study used an entirely online-based snowball recruitment strategy. Snowball recruitment can limit the diversity of participants because it relies on key individuals to recruit others, as such, those that participate in the survey may not be representative of the larger population. Another interesting aspect of the
demographics of participants is the predominance of women. While respondents of a recent Equine Canada study [c] were 79% female, the proportion of females in the current study exceeds this value. As our study over-represents women in the equine industry, it may not accurately represent the level of client satisfaction in men.

Another limitation was that respondents’ high ratings of satisfaction resulted in markedly skewed data, which has also been seen in patient satisfaction data in human healthcare [3,4,36] and in client satisfaction in companion-animal practice [9]. As highly skewed data was anticipated, a visual analogue scale response format was used in an effort to increase variation of responses [37,38], as opposed to using a Likert scale, which limits respondents to choice from a small number of categories. Despite our efforts to increase variation, our data was still highly skewed and not-normally distributed. As such, the outcome was dichotomized to permit the investigation of factors contributing to client satisfaction. Dichotomization of satisfaction ratings has been acknowledged as an accepted way of handling the non-normal distribution of this type of data [39,40], with similar studies from human medicine using dichotomization to evaluate the results of patient satisfaction surveys [30,40].

5. Conclusions

In conclusion, this study identified client age, days since visit, frequency of vet use, client bond with their horse, and veterinarian’s perceived age to have an association with equine client satisfaction. Understanding the dynamics that have a role in equine clients’ satisfaction is important as it has been identified to be an indicator of the quality of veterinary care provided, and also as a measure of practice success.
Footnotes


References


Table 4.1: Categorical Demographic Item Frequency Counts

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Proportion of Respondents (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;Grade 12</td>
<td>22</td>
<td>1.5</td>
</tr>
<tr>
<td>High School</td>
<td>191</td>
<td>12.7</td>
</tr>
<tr>
<td>College/University Degree</td>
<td>967</td>
<td>64.5</td>
</tr>
<tr>
<td>Post-graduate Degree</td>
<td>319</td>
<td>21.2</td>
</tr>
<tr>
<td><strong>Income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;$35,000</td>
<td>226</td>
<td>17.2</td>
</tr>
<tr>
<td>$36,000-55,000</td>
<td>206</td>
<td>15.6</td>
</tr>
<tr>
<td>$56,000-75,000</td>
<td>231</td>
<td>17.5</td>
</tr>
<tr>
<td>$76,000-100,000</td>
<td>241</td>
<td>18.3</td>
</tr>
<tr>
<td>&gt;$100,000</td>
<td>413</td>
<td>31.4</td>
</tr>
<tr>
<td><strong>Industry</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English Performance</td>
<td>867</td>
<td>62.6</td>
</tr>
<tr>
<td>Western Performance</td>
<td>102</td>
<td>7.4</td>
</tr>
<tr>
<td>Pleasure</td>
<td>334</td>
<td>24.1</td>
</tr>
<tr>
<td>Racehorse</td>
<td>29</td>
<td>2.1</td>
</tr>
<tr>
<td>Other</td>
<td>54</td>
<td>3.9</td>
</tr>
<tr>
<td>*<em>Relationship to Horse</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Owner</td>
<td>1398</td>
<td></td>
</tr>
<tr>
<td>Trainer</td>
<td>449</td>
<td></td>
</tr>
<tr>
<td>Groom</td>
<td>311</td>
<td></td>
</tr>
<tr>
<td>Rider</td>
<td>703</td>
<td></td>
</tr>
<tr>
<td>Barn Manager</td>
<td>350</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>64</td>
<td></td>
</tr>
<tr>
<td><strong>Frequency of Use of this Veterinarian</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regularly</td>
<td>1126</td>
<td>75.5</td>
</tr>
<tr>
<td>Sometimes</td>
<td>234</td>
<td>15.7</td>
</tr>
<tr>
<td>Never Before</td>
<td>132</td>
<td>8.9</td>
</tr>
<tr>
<td><strong>Vet Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>725</td>
<td>49.7</td>
</tr>
<tr>
<td>Female</td>
<td>733</td>
<td>50.3</td>
</tr>
<tr>
<td><strong>Reason for Visit</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Emergent Visits Total</td>
<td>1252</td>
<td>79.4</td>
</tr>
<tr>
<td>Emergency</td>
<td>325</td>
<td>20.6</td>
</tr>
</tbody>
</table>

*Percentages add to >100% because some participants identified multiple relationships
Table 4.2: Continuous Demographic Item Descriptive Statistics

<table>
<thead>
<tr>
<th>Question</th>
<th>Min</th>
<th>Max</th>
<th>Median</th>
<th>Mean</th>
<th>SD</th>
<th>Valid Responses</th>
<th># 100's</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agreement with the statement: I am strongly bonded with the horse(s) that received care</td>
<td>0</td>
<td>100</td>
<td>100</td>
<td>94.41</td>
<td>13.01</td>
<td>1495</td>
<td>945</td>
</tr>
<tr>
<td>Years Involved with Horses</td>
<td>1</td>
<td>67</td>
<td>21</td>
<td>24.34</td>
<td>12.73</td>
<td>1526</td>
<td></td>
</tr>
<tr>
<td>Number of Horses Provided Care For</td>
<td>0</td>
<td>200</td>
<td>3</td>
<td>7.07</td>
<td>12.01</td>
<td>1519</td>
<td></td>
</tr>
<tr>
<td>Number of Horses Owned or Leased</td>
<td>0</td>
<td>120</td>
<td>2</td>
<td>3.64</td>
<td>5.46</td>
<td>1523</td>
<td></td>
</tr>
<tr>
<td>Days Since Last Visit</td>
<td>0</td>
<td>2920</td>
<td>30</td>
<td>84.00</td>
<td>138.73</td>
<td>1474</td>
<td></td>
</tr>
<tr>
<td>Perceived Veterinarian Age</td>
<td>25</td>
<td>80</td>
<td>42</td>
<td>43.55</td>
<td>10.29</td>
<td>1490</td>
<td></td>
</tr>
<tr>
<td>Overall Vet Use per Year</td>
<td>0</td>
<td>365</td>
<td>4</td>
<td>7.53</td>
<td>20.62</td>
<td>1500</td>
<td></td>
</tr>
<tr>
<td>How many times a year do you use this veterinarian?</td>
<td>0</td>
<td>365</td>
<td>4</td>
<td>7.06</td>
<td>20.60</td>
<td>1338</td>
<td></td>
</tr>
<tr>
<td>How many years have you been using this veterinarian?</td>
<td>0</td>
<td>36</td>
<td>5</td>
<td>6.60</td>
<td>6.00</td>
<td>1351</td>
<td></td>
</tr>
</tbody>
</table>
Table 4. 3: ISCS, OSS, and Global Satisfaction Item Descriptive Statistics

<table>
<thead>
<tr>
<th>Item</th>
<th>Min</th>
<th>Max</th>
<th>Median</th>
<th>Mean</th>
<th>SD</th>
<th>Valid Responses</th>
<th># 100's</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The ease in arranging the veterinarian's visit to your farm</td>
<td>1</td>
<td>100</td>
<td>96</td>
<td>88.15</td>
<td>19.73</td>
<td>1527</td>
<td>665</td>
</tr>
<tr>
<td>2. The veterinarian's punctuality</td>
<td>1</td>
<td>100</td>
<td>90</td>
<td>82.74</td>
<td>22.40</td>
<td>1485</td>
<td>478</td>
</tr>
<tr>
<td>3. The veterinarian's trust in what you told them about the horse(s)</td>
<td>1</td>
<td>100</td>
<td>98</td>
<td>90.24</td>
<td>17.04</td>
<td>1523</td>
<td>698</td>
</tr>
<tr>
<td>4. The veterinarians' knowledge of the history of the horse(s)</td>
<td>1</td>
<td>100</td>
<td>95</td>
<td>85.12</td>
<td>21.92</td>
<td>1429</td>
<td>537</td>
</tr>
<tr>
<td>5. The veterinarian's understanding of your goals with the horse(s)</td>
<td>1</td>
<td>100</td>
<td>99</td>
<td>89.70</td>
<td>17.81</td>
<td>1511</td>
<td>707</td>
</tr>
<tr>
<td>6. The veterinarians understanding of how the job of the horse(s) impacts their health</td>
<td>1</td>
<td>100</td>
<td>100</td>
<td>91.67</td>
<td>15.66</td>
<td>1509</td>
<td>775</td>
</tr>
<tr>
<td>7. The veterinarian's horse sense</td>
<td>1</td>
<td>100</td>
<td>100</td>
<td>92.34</td>
<td>15.58</td>
<td>1535</td>
<td>816</td>
</tr>
<tr>
<td>8. The veterinarian's appreciation of what the horse(s) means to you</td>
<td>1</td>
<td>100</td>
<td>100</td>
<td>90.30</td>
<td>18.83</td>
<td>1516</td>
<td>790</td>
</tr>
<tr>
<td>9. The veterinarian's medical expertise</td>
<td>1</td>
<td>100</td>
<td>98</td>
<td>91.37</td>
<td>15.22</td>
<td>1537</td>
<td>692</td>
</tr>
<tr>
<td>10. The amount of information the veterinarian gave you</td>
<td>1</td>
<td>100</td>
<td>95</td>
<td>87.59</td>
<td>19.52</td>
<td>1513</td>
<td>586</td>
</tr>
<tr>
<td>11. The options presented by the veterinarian</td>
<td>1</td>
<td>100</td>
<td>95</td>
<td>86.65</td>
<td>20.50</td>
<td>1488</td>
<td>586</td>
</tr>
<tr>
<td>12. The veterinarian's consideration of your budget</td>
<td>1</td>
<td>100</td>
<td>92</td>
<td>81.33</td>
<td>25.84</td>
<td>1438</td>
<td>504</td>
</tr>
<tr>
<td>13. How the veterinarian communicated with you about cost</td>
<td>1</td>
<td>100</td>
<td>90</td>
<td>78.3</td>
<td>28.29</td>
<td>1399</td>
<td>467</td>
</tr>
<tr>
<td>OSS</td>
<td>3.15</td>
<td>100</td>
<td>94.85</td>
<td>91.01</td>
<td>11.53</td>
<td>1077</td>
<td>135</td>
</tr>
<tr>
<td>1. I would consider switching primary care veterinarians</td>
<td>1</td>
<td>100</td>
<td>7</td>
<td>22.80</td>
<td>31.42</td>
<td>1443</td>
<td>543**</td>
</tr>
<tr>
<td>2. I would be completely happy to have this veterinarian out to look after the horse(s) again</td>
<td>1</td>
<td>100</td>
<td>100</td>
<td>89.81</td>
<td>21.63</td>
<td>1490</td>
<td>837</td>
</tr>
<tr>
<td>3. I followed the</td>
<td>1</td>
<td>100</td>
<td>100</td>
<td>93.14</td>
<td>15.68</td>
<td>1505</td>
<td>864</td>
</tr>
<tr>
<td>Treatment recommendations of this veterinarian</td>
<td>1</td>
<td>100</td>
<td>99</td>
<td>88.89</td>
<td>21.12</td>
<td>1508</td>
<td>748</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>---</td>
<td>-----</td>
<td>-----</td>
<td>-------</td>
<td>-------</td>
<td>------</td>
<td>-----</td>
</tr>
<tr>
<td>The veterinarian's approach was a good fit for me and the horse(s)</td>
<td>1</td>
<td>100</td>
<td>98</td>
<td>87.84</td>
<td>21.41</td>
<td>1493</td>
<td>676</td>
</tr>
<tr>
<td>The veterinarian was a good communicator</td>
<td>1</td>
<td>100</td>
<td>100</td>
<td>89.90</td>
<td>19.68</td>
<td>1494</td>
<td>782</td>
</tr>
<tr>
<td>The veterinarian took their time with the horse(s)</td>
<td>1</td>
<td>100</td>
<td>97</td>
<td>88.49</td>
<td>20.46</td>
<td>1474</td>
<td>609</td>
</tr>
<tr>
<td>Based on your most recent interaction, overall how satisfied were you with the veterinarian?</td>
<td>1</td>
<td>100</td>
<td>97</td>
<td>88.49</td>
<td>20.46</td>
<td>1474</td>
<td>609</td>
</tr>
</tbody>
</table>
Table 4.4: Factor Loadings for ISCS Items

<table>
<thead>
<tr>
<th>Component</th>
<th>Initial Eigenvalues</th>
<th>Total Variance Explained</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>% of Variance</td>
</tr>
<tr>
<td>1</td>
<td>7.47</td>
<td>57.463</td>
</tr>
<tr>
<td>2</td>
<td>0.955</td>
<td>7.381</td>
</tr>
<tr>
<td>3</td>
<td>0.903</td>
<td>6.865</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.
Table 4. 5: Final Logistic Model of Overall Satisfaction Score (n=964)

|                     | Estimate | 95% CL for Estimate | Pr>|t| | Odds Ratio |
|---------------------|----------|----------------------|-----|------------|
| Intercept           | -3.310   | -4.835, -1.786       | <0.0001 |           |
| Age                 | 0.0315   | 0.0213, 0.0416       | <0.0001 | 1.032     |
| Bond                | 0.0256   | 0.0116, 0.0396       | 0.0003 | 1.026     |
| Frequency of Veterinary Use |          |                      |       |            |
| NB                  | -0.225   | -0.942, 0.525        | 0.556 | 0.799 (NB-S) |
| S                   | 0        |                      |       |            |
| R                   | 1.043    | 0.561, 1.526         | <0.0001 | 2.838 (R-S) |
| Days Since Visit    | -0.0022  | -0.0037, -0.0006     | 0.0053 | 0.998     |
| Perceived Veterinarian Age | -0.0252 | -0.0385, -0.0118     | 0.0002 | 0.975     |

*NB= never before; R= regularly; S=sometimes
Chapter 5

Equine Referring Veterinarians’ Expectations of Equine Veterinary Specialists and Referral Centers

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Abstract

Objective – To explore equine referring veterinarians’ expectations of equine veterinary referral centers and specialists.

Design – Focus group interviews

Participants – 6 equine referring veterinarian focus groups (48 veterinarians)

Procedures – Each focus group was conducted independently using a standardized discussion guide consisting of open-ended questions and follow up probes. Data was analyzed using thematic analysis.

Results – The overarching theme of participants’ discussions was that the specialist and referral center are an extension of the care that the rDVM provides to their clients and patients. The five areas that participants described being important to this expectation were rDVM-client relationship, rDVM involvement during referral care, collegial rDVM-specialist relationship, communication between rDVM and specialist and the boundaries of referral care. Participants wanted to be involved during the referral process, which was seen to be facilitated by having a collegial relationship with the specialist and through effective communication during the course of referral care.

Conclusions and clinical relevance – The relationship and communication between equine rDVM and specialists is an important part of equine veterinary medicine. Referring veterinarians and specialists are likely to benefit from pursuing opportunities to further their relationship by using upfront communication to establish clear role expectations and clear processes for sharing information.
Introduction

Equine veterinary professionals should strive to produce good patient outcomes by providing high quality care to the animal, and positive client outcomes through good rapport and effective communication. Over the past several decades, veterinary medicine has seen a considerable increase in the number of private referral and tertiary care centers,\(^1,^2\) which has influenced the way in which veterinarians practice due to the accessibility and availability of specialty care. Further, society’s relationship with animals is changing which is likely influencing the care clients desire for them.\(^3,^4\) This has contributed to the increase in veterinary patients whose care includes referral to a specialist or referral center. Common reasons suggested for veterinarians referring patients include: belief the animal will receive better care at a referral hospital, discomfort with the case, lack of required skills or equipment necessary to diagnose or treat the case, and insufficient time to properly manage the case due to the demands of other patients.\(^2,^5\)

When a horse is referred, the veterinary healthcare team extends from the primary care veterinarian and their clinic to include the specialists and staff at the referral center. In equine practice, veterinary teams are often small, and therefore the change in team size that results following a referral is noticeable. As the number of individuals involved in a horse’s care increases, so likely does the complexity of the communication between healthcare providers and the need for integrating the work of all parties. In order for increased access to referral care to lead to improved patient outcomes it is essential that there be a framework between referring veterinarians (rDVMs) and specialists that supports the referral process.

A few studies have explored components of the referral process in veterinary medicine. In companion animal medicine, one study found that high rDVM confidence in the specialists to
whom they referred and a distance of less than 2 hours driving from the referral hospital were factors that increased the likelihood of patient referral.\textsuperscript{6} Another study identified misperceptions between rDVM and Veterinary Teaching Hospital (VTH) veterinarians with regard to the timeliness and occurrence of case communication, as well as the rDVM’s desire to receive recommendations.\textsuperscript{7} Specifically, rDVMs indicated they received less communication than VTH veterinarians reported engaging in, and rDVMs desired recommendations more than VTH veterinarians perceived. The difference in perception between rDVMs and specialists is an important area of study that may act as barriers to healthcare providers’ communication and relationships. In equine medicine, the importance of rDVM-specialist communication has been highlighted in a VTH staff paper from Michigan State University, in which rDVMs identified communication and respecting rDVMs as the top areas they wanted the VTH to improve.\textsuperscript{8} The findings of these studies emphasize communication and relationships as important components of interactions between rDVMs and specialists, and where historical shortcomings may exist.

A number of groups, including the American Association of Equine Practitioners (AAEP) and the American Animal Hospital Association have created guidelines for the referral process\textsuperscript{b,c} in equine and companion animal practice respectively. These provide a suggested framework for the interactions that occur between rDVMs and specialists, yet little is known about the referral process in veterinary medicine. The primary objective of the current study was to explore equine rDVMs’ expectations and needs of equine referral centers and veterinary specialists in order to further understand factors that influence when and to whom patients are referred, and the relationship between equine rDVM and specialists.

\textbf{Materials and Methods}

The study protocol was approved by the University of Guelph Research Ethics Board (REB
Study Design

The study consisted of 6 focus groups held during December of 2012, at the annual convention of the American Association of Equine Practitioners in Anaheim, California. Focus groups were held in a small meeting room at the Anaheim Convention Center.

Study Participants

Participants were recruited using several strategies, including email to the AAEP listserv (Appendix C.1), a recruitment notice in the “Spur of the Moment” AAEP newsletter, postcards available at nearby Anaheim, CA, USA hotel check-in desks and conference notice boards (Appendix C.3), and in-person at the convention by known associates of the author. Criteria for participation were being a primary care veterinarian whose practice included horses, and who had referred patients to an equine referral center for care. Participants were offered a $100 honorarium in appreciation for their participation.

Focus Group Interview Structure

All focus group interviews were conducted using a semi-structured interview format and were led by the author, a primary care equine veterinarian. A research assistant provided organizational support and took notes describing the nonverbal behaviours of participants during the focus groups. The focus groups were scheduled for two hours in duration, and were audio-recorded using a Zoom H2 Handy omni-directional voice recorder (Zoom Corp). A standardized discussion guide consisting of open-ended questions and follow-up probes was used for all focus groups (Appendix C.5). The interview guide was developed by the author and was informed by a review of the literature and three one-on-one interviews with equine rDVMs, known to the author, about their equine referral experiences. The interview guide was pretested using a mock
focus group of rDVMs known to the author, in order to determine if the interview guide was comprehensible, clear, and addressed important concepts. Feedback provided by participants was then used to refine the interview guide. An experienced transcriptionist transcribed the audio recordings verbatim, and identifying information (i.e., veterinarian names, referral hospital names, patient names) was removed at this time.

**Data Analysis**

The transcripts were initially reviewed by the author while listening to the audio recordings to ensure accuracy of the transcript. Thematic analysis, an established form of qualitative data analysis, was then performed on the data. Analysis began with the author familiarizing herself with the data by reading through the transcripts in their entirety. The transcripts were then coded line-by-line to establish the basic data segments, after which the coded data segments were collated and analyzed such that subthemes and themes were identified. A theme is a “patterned response or meaning within the data set”. Codes, subthemes, and themes were subsequently described in a codebook. During the thematic analysis, data sharing sessions with the author, Dr. Jason Coe, and Dr. Joanne Hewson were held to discuss the trends and patterns in the data.

The reliability of the coding was established by comparing the author’s coded transcripts to those coded by an equine veterinary surgeon, a diplomate of the American College of Veterinary Surgeons, that was employed by an equine referral center at the time of transcript review. The equine surgeon independently coded two-thirds of the transcripts using an abridged codebook containing the author’s subthemes and themes. Agreement between coders was evaluated at the subtheme level. The coding was compared and disagreements were identified, the author and equine surgeon then discussed the disagreements. If consensus could not be
reached, the disagreement was classified as a true disagreement. Inter-coder agreement was calculated by dividing the number of agreements by total number of agreements and true disagreements.

**Results**

A total of 48 rDVMs participated in the 6 focus groups, with each group ranging in size from 7-9 participants. Eleven males and 37 females participated. Participants had been in practice for an average of 15.5 years (median 10; range 1 to 46 years). On average, participants’ practice focus was 90% equine (median 100%; range 30 to 100%). The average distance for participants to a VTH was 2.6 hours (median 1, range 0.3-10, SD 2.2) and the average distance to a private referral hospital was 1.3 hours (median 1, range 0.2-4, SD 0.86). The referral patterns of participants (i.e., number of patients referred to private referral centers or veterinary teaching hospitals, and frequency of consultations with a specialist) are presented in Table 5.1. Inter-rater agreement was 97.8%.

Thematic analysis of the rDVM focus groups revealed two overall themes: referral care is an extension of rDVM care and referral hospital traits (Appendix C.7). The theme of referral care being an extension of rDVM care is described in the present paper because it was overwhelmingly the focus of participants’ discussions. Direct quotes from participants are provided throughout the presentation of results to support the findings.

**Referral care is an extension of rDVM care**

The overarching theme of participants’ discussions was that the specialist and referral center should act as an extension of the care the rDVM provides to their clients and patients, “It’s like an extension of your own personal care.” The five areas that participants described being important to this expectation were rDVM-client relationship, rDVM involvement during referral
care, collegial rDVM-specialist relationship, communication between rDVM and specialist, and the boundaries of referral care.

**rDVM-Client Relationship**

In all focus groups, participants discussed the relationship they had with their clients as a motivation behind their expectation that referral care be an extension of the care they provide. Participants made the point that the client and horse are what is most important to them, “My best interest is that client and that horse, you know? That’s all I really care about.” Participants described their perception that clients judge and evaluate them based on the client’s referral experience, “One thing is important to me is that the client’s satisfied with their care, because if they’re satisfied with their care, then they’re going to be satisfied with me for referring them in.” Another participant commented, “They were upset with me for the referral to someone that their perception was - messed things up, wasn’t doing their job.” Further, participants described transferring the trust the client has in them to the specialist when they refer a horse, “I think in some cases, you’re handing over the trust of this client and you know, by referring them … this client trusts you, and you’re saying well, you can trust this place and you need to know that trust is being continued.”

The importance of the relationship participants had with their clients was demonstrated through the frequent use of positive descriptors associated with discussion of their clients when recounting referral experiences, “my friend”, “a very good client”, “a good client, long term”, and “my clients trust me.” Participants also spoke about their clients being more comfortable when they, as the rDVM, are involved in the care of the horse because their clients know and trust them, “I’ve had a good experience where we had a very high maintenance, challenging client, that went in for a referral, and she was really concerned about … having me involved …
while the horse was there, and so [the referral center] actually set up a conference call where the client was sitting there, the surgeon was sitting there and I was on the phone with them, and we could all discuss the diagnostic options and treatment options together, and that made her feel better.” In addition, participants discussed how their continued involvement with the case during the referral process demonstrated to their client that they were interested, and cared for the client and horse.

Another component of the referral experience which participants described as important because of their relationship with their client was the cost of referral care. They discussed their desire for clients to be kept up-to-date with the ongoing costs of care, and to not pay more than the rDVM perceived appropriate for the care provided, “I watch what they spend of my client’s dollars.” Participants spoke about advising their clients about how to discuss their budget for referral care with the specialists, “Tell ‘em ahead of time, ‘This is your budget. This is what you can spend, so figure out what your treatment plan is within that.’”

**rDVM Involvement during Referral Care**

Participants from all focus groups spoke about wanting to remain involved in the horse’s care during the referral process, including diagnostic and treatment decision-making. One reason participants discussed for this was their perception that involvement with decisions while the horse is at the referral center and increased communication would improve the likelihood that the specialist would perform the procedure or provide the care originally requested by the rDVM. Also, participants indicated this would reduce the chance that the specialist would repeat the work-up the rDVM performed in the field, “I’ve had lamenesses where I’ve sent for a nuke scan, I’ve already fully worked them up, they’ve already been radiographed and ultrasounded, … the full work-up and they go for a nuke scan, that’s it. And then they walk in the door and the
surgeon wants to start from scratch with watching them on a lunge line.” Another participant commenting, “We don’t appreciate the duplication of the work that referral institutions do, many times. I hate it when I send a horse in with an IV catheter that’s perfectly fine, and the first thing they do is rip it out and put another one in the other jugular.” Participants expressed concern regarding the appropriateness of the care their patients received if it was not that for which the horse was referred, “I need to know that they’re taking care of my client and that horse, in a way that I think is appropriate.” Participants expressed frustration and dissatisfaction with the referral process when specialists did not execute the plan of care the rDVM had originally referred the horse for.

Participants also described how a specialist’s course of treatment, particularly repeated workups, can reflect badly on the rDVM in the eyes of the client. As such, participants wanted to remain involved in the care decisions involving the patients they had referred, “If we send a horse in, we did these blocks, radiographs, this is what it is I think, you know, I need you to do, look at the stifle or whatever. And they go in, and they repeat them all over again, and they’re charging the client for it and it also makes it look as though they don’t trust what you did. That maybe you didn’t know what you were talking about.” Participants commented that, in the event of a discrepancy between the care the horse was sent to receive and the care the specialist feels appropriate, there should be a discussion between the rDVM and specialist to resolve the difference prior to care being provided to the horse. Lastly, they described that repeated work often resulted in increased cost to the client, and could result in the horse not getting the care for which they were referred originally because the client’s resources were used up on the repeated workup, “To send a horse there for something specific, that’s what the appointment was scheduled for, you know, that’s what they’d set aside the money for; … And then to not have any
of that done, at all, and the horse come back with no, with no other answer than what we had
started with. They ended up selling the horse to be a pasture ornament for some little girl, when
my bet is it could’v healed; we just didn’t know what we needed to do to get ‘em there.”

Conversely, one participant commented that it was understandable that the referral center worked
up the cases again, though the participant also stated that the client shouldn’t be charged for the
repeated work-up.

Another reason participants discussed wanting to remain involved in the horse’s care
while at the referral center was their belief that they could improve outcomes for the patient and
client by sharing information with the specialist about the horse’s history and client’s situation,
as well as offering input on what type of aftercare can be provided, “If all of us can get together
– the referral vets, the vets at the referral center, and the owner – and the more information we
have, I think the better choices will be made for that individual animal.” Another participant
commented about sharing client and patient information, “if I’m involved while the horse is still
there … if I get some communication, because if there are several different pathways to go on
either treatment or follow up care… I can say, well, that sounds great, but there’s no way this
client is going to do that, so we need to take another route.”

**Collegial rDVM-Specialist Relationship**

All rDVM focus groups spoke about the characteristics of an interpersonal relationship
they wanted to have with the specialists to whom they sent cases; participants used words such as
“respect”, “collegiality”, open communication, and “trust”, to describe the relationships they
wanted to have with specialists. One participant commented, “It’s somebody who I trust, who I
think is going to keep me in the loop, who I think is going to do a good job, who is going to be
respectful of my thoughts.” Participants expected specialists to respect their opinion,
relationship with their client, and time, “the hours that you can waste, you know, trying to provide for your clients in dealing with the referral hospitals can get ridiculous.” A number of participants expressed a desire to have their clinical expertise acknowledged and respected by the specialist, “To assume every time you refer to somebody that they’re the expert and you’re not, that’s ridiculous” Participants discussed how the presence of a collegial relationship with the specialist can impact the trust the specialist has in a rDVM’s work, and as such, increased the likelihood that the specialist would execute the plan for care for which the horse was referred, “That’s why it’s so important when we know who we’re sending them in to, because as [participant X] was saying, you know, when you know that person – and she tells them, ‘Hey. This is what I’ve done, here are the results.’ They know that they don’t have to repeat that, because [participant X] knows what she’s doing.”

Participants also spoke about the role of a specialist’s personality traits in the development of a rDVM-specialist relationship; attributes that were mentioned as contributing positively to the relationship were “friendly”, “competent”, “respectful”, “open”, and “not condescending.” Several participants spoke negatively about specialists that displayed “arrogan[ce]” or have a large “ego.” Participants discussed being more willing to send cases to clinicians with whom they had a relationship, which they commented was easier to establish with clinicians who possessed positive traits.

Another factor discussed by participants as influencing the quality of the rDVM-specialist relationship was how well they knew the specialist. Participants described gaining this knowledge through previous experience working or speaking with the specialist. Participants discussed having increased comfort, trust, and communication when working with specialists they knew well, “Knowing the clinician on the other end of the phone, that I’m referring to. So,
I’ve met that person, I know their face, I know their voice. … Having that relationship, those are the ones that tend to come out the best, because we know each other, so communication works really well.” Participants discussed more uncertainty existing, regarding the communication that would occur and the patient’s outcome, when they did not know the specialist to whom they referred.

A number of participants described receiving support and advice from specialists over the phone about cases they were treating in the field. This increased familiarity, and helped establish or strengthen the relationship between rDVM and specialist. Participants indicated that often when they were looking to speak with a specialist, it was because they needed advice, an update about a case, or support. Participants described the availability of the specialist as contributing to their expectations being met, “It helps because sometimes we’re unsure whether we really have to refer this, or maybe it’s something we could handle out in the field if we had just a little more information. It’s very nice to be able to pick up the phone and call that referral person, and … get some feedback from them as to whether or not we might be able to handle it at home with some of their suggestions.” One participant described her satisfaction with her ability to contact specialists at a referral center to which she sent cases “Every single one of those clinicians there have a clinic cell phone; I have all their cell phones in my contact list, … they carry it when they’re at work and they answer it. Or, if they can’t answer it while they’re in surgery, they call me back within twenty-four hours.”

**Communication between rDVM and Specialist**

All focus groups discussed communication and its role in the referral process. Based on the many positive experiences participants shared, effective and timely communication was a strong contributor to how participants viewed the referral experience, “The communication is
always what I think makes it a positive experience with referral, ... both with the referring vet and the client.” Further, in many of participants’ negative experiences, poor communication (e.g., a lack of communication, delayed communication, incorrect information) was implicated, “my negative experiences, …, it’s mostly communication issues.” Communication was stated by participants to be the most important component of the referral process, “the daily contact and communication is the main part for me.”

Participants wanted to receive timely communication that kept them up-to-date with the case and involved them in the patient’s care. Participants discussed desiring this for a couple of reasons, one of which was that they (the rDVM) continued to work with the client while the horse was in hospital, and as such, needed information about the case, “Your job doesn’t end when you’re sending it to the referral facility. You’re still communicating with them, helping them to understand in the way that only you know they can understand… And [the specialists] should appreciate that by doing their part and their part includes calling me on the telephone.”

There was concern expressed by several participants that unexpectedly encountering clients and not knowing how the horse was doing, reflected badly on them, “the last thing I want to do is run into [the client], and the horse has been euthanized, … and not know. I think the not knowing and not being able to offer any clarity to them because there isn’t that communication is – makes it look like you don’t care enough to know what’s going on.”

Several participants from one focus group discussed how the rDVM is a client of the specialist and referral centre in referral care situations and thus deserves information about how the horse is doing, “I am a client, at that point. I deserve that communication.” Participants from the same focus group also voiced an expectation for the specialist to initiate contact with the rDVM to provide them with updates on the horse’s condition while the horse was in hospital,
“To not call and assume that I’m supposed to call you? That is not ok.” This expectation seemed to stem from previous difficulties participants had when trying to reach the clinician, resulting in frustration and anger, “calling repeatedly to try and get information … we don’t get paid for that, and totally eats up our time.”

Participants from all focus groups also discussed the importance of receiving a written discharge statement or case summary when the horse is discharged or euthanized. Participants expressed a desire to receive a thorough and accurate discharge statement that contained a summary of the care the horse received and what aftercare was required in a timely fashion when the patient left the hospital. Participants discussed desiring this because having the information in the discharge was necessary for them to provide the horse with appropriate care following the referral, “When it goes home, that the discharge instructions are quickly sent so I know what to do once the horse is back in my care.” In two focus groups, participants discussed wanting to receive the discharge the same day the horse was discharged. As part of a positive experience, a participant described, “I got a report in my email the same day the horse came out of surgery as far as everything they found, everything they did, what medications the horse was coming home on, what I needed to do two weeks later as a follow up… The communication was just perfect between the front desk and me …, between me and the surgeon.” Participants also spoke about the importance of the discharge directing the client back to the rDVM for further care, not the referral hospital or clinician, “[X referral hospital] used to send me discharge instructions and it would say, ‘if this happens, call Dr. So-and-So’ – not me, them. And it just drives that person into that practice as a regular client. And that really pissed me off.”

Participants also mentioned several challenges they perceived regarding specialist-rDVM communication, which included specialists’ time constraints, changes to the specialist in charge
of the case, and having to speak to multiple individuals about a single case. A solution suggested by a few participants for managing time constraints was the use of technology (i.e., email and text message), as this allowed for time-effective communication that was accurate, and in some situations, provided a written record.

**Boundaries of referral care**

In four of the six focus groups, participants expressed their frustration and displeasure with respect to when specialists performed procedures or provided medication to their clients that the rDVM could have managed in their own clinic. Participants expressed concern with specialists performing procedures on referred patients that participants could have done in the field, because that was not the purpose of the referral, “as a referral center, your job is to do the emergent things that, you know, in the field you don’t have the facilities to do, or aren’t comfortable with doing.” Participants spoke about their loss of income that resulted, “So… scoping, dental, [drug brand name]d for twenty-eight days … that’s a lot of money… Those are all things I can do myself.” Participants also described losing potential revenue when the referral center provided medication for the horse’s aftercare, “I’m going to be doing the follow-up therapy, so I’d like to have a chance to also benefit from some of the work as well.”

A number of participants spoke with disapproval of referral centers whose staff encouraged the client to use the referral center for their primary care needs, “actively trying to get that account [of the referred client] for themselves.” Participants described referral centers that compete for referred clients to use their facility to be “unethical”, “dishonest” and not collegial, “When I see a referral facility with an ambulatory component that [is]… actively trying to get that account for themselves, I’m going member-on-member complaint to the ethics committee in the AAEP… because I think it’s unethical and dishonest.” To manage this
concern, participants discussed not sending cases to referral hospitals that they knew competed with their practice, “If you’re going to … accept clientele, it’s not going to work.” Participants also described being more hesitant to refer to referral centers that also provided primary care due to increased risk of losing the client, “It’s really hard when it’s a specialty practice that also does preventative or maintenance care. Because I think it’s almost a conflict of interest at that point.”

**Discussion**

The primary finding of the current study was the participants’ broad expectation that referral care is an extension of rDVM care. This is consistent with a commentary regarding the veterinary referral process that suggested the role of the rDVM should be as a valued team member, and that they should be involved as much or as little as they desire.² In human healthcare, shared responsibility and care for the patient during the referral process has been found to be integral to the establishment of collaborative relationships between general practitioners and specialists.⁹ Collaboration between primary care physicians and specialists has been shown to lead to improved outcomes.¹⁰ Our findings indicate that viewing the referral process in equine veterinary medicine as a collaborative extension of the referring veterinarian’s care is likely to support positive outcomes for referring veterinarians and specialists, as well as clients and ultimately patients.

The results of the present study indicated that participants expected to have the care they provide equine patients and clients integrated with that provided by the specialist and referral center through frequent, two-way communication and collegial relationships, such that the outcome is the product of a combined effort. This expectation aligns well with the practice of relational coordination (RC), in which a work process, such as patient care, is accomplished through the reciprocal and reinforcing interactions of communication and relationships.¹¹ Studies
in human healthcare have shown that RC is positively correlated with quality of care, and negatively correlated with length of stay, and post-operative pain.\textsuperscript{12} Relational coordination has been found to be most effective in work systems that operate under conditions where there are time limitations and uncertainty,\textsuperscript{11} both of which can occur in equine veterinary medicine and in the course of equine patient referral. There are three relationship dimensions in RC: shared knowledge, shared goals, and mutual respect; and four communication dimensions: frequent, timely, accurate, and problem-solving.\textsuperscript{11} These communication and relationship dimensions support each other and act synergistically. Given the parallels seen between participants’ expectations identified in the current study and the dimensions of RC, it is reasonable to suspect there may be an opportunity to focus on the dimensions of RC between rDVMs and specialists within equine veterinary practice to improve the outcomes for equine patients, clients, and the veterinary care providers involved.

The results of the present study suggest that rDVMs view referral care as a process in which both rDVM and specialist play critical roles. However, participants described occasions in which there was discordance between their desired role and the role they perceive specialists afforded them, often relating to the rDVM’s level of involvement in the case. A possible explanation for this is a disparity between the rDVM’s and specialist’s goals for the referral process. “Shared goals” is a relationship dimension of RC,\textsuperscript{11} and in the referral process would result in both rDVM and specialist having the same desired course of referral care and objectives for the case. The AAEP referral guidelines suggest that, prior to referral, both referring and receiving veterinarians should make their primary goal the best interest of the patient.\textsuperscript{b} Acknowledging the best interests of the patient is the common goal for both rDVM and specialists offers a starting point for having a discussion about coordinating providers’ efforts.
This would involve jointly determining how each party can best contribute to ensure optimal patient care is provided, the level of involvement of the rDVM, and provide an opportunity for shared plan creation. The determination of mutually agreed upon goals for the referral process between rDVMs and specialists is likely to be an important component to a successful referral.

Also, the results of the present study suggest that the role and responsibilities participating rDVMs expect specialists to assume during the referral process varies on a case-by-case basis, and was often based on the reason the horse was referred (e.g., to receive expert care versus to undergo a specific diagnostic test). This is in contrast with the current AAEP referral guideline that proposes the primary responsibility for care decisions during the referral process is that of the specialist. Although specialists intuitively carry the responsibility of in-the-moment care decisions, participants in the current study expressed an expectation that specialists should follow through with the original care decision that led to the rDVM’s referral. If the specialist decides to change the course of action for which the equine patient was originally referred a discussion of this change should happen with the rDVM first. In human medicine, a systematic review has found that primary care physicians and specialists frequently disagree on the role of the specialist during the referral. Conceptually, it has been suggested that agreement regarding roles and the care plan are essential to care integration. A handful of specialist roles have been proposed, which differ based on the duration of involvement anticipated by the specialist, and whether it is advice or the completion of a procedure that was the purpose of the original referral. Similarly, our findings suggest two broad types of referral exist in equine veterinary practice, those in which the referring veterinarian refers the patient for completion of a diagnostic test or procedure that they cannot do in the field, or those where the patient is referred to a specialist to receive expert care that the rDVM cannot provide. Before the transfer of patient
care occurs, rDVMs and specialists may benefit from confirming the specific purpose of the referral, deciding upon the role of each party, and agreeing upon the work to be done during the course of the referral process. This is likely to facilitate the development of shared goals between all involved parties, while simultaneously promoting mutual respect.

In the present study, participants’ desire to receive communication that keeps them informed about the case contributes to shared knowledge. This keeps the rDVM aware of the work that is being done by the specialist allowing them to continue to support and work with their client during the referral process. Within RC, the dimension of shared knowledge is comprised of the idea that each party involved in a work process knows the capabilities of other parties, and understands how the others’ tasks fit together to contribute to the overall work process.\textsuperscript{11} There were two potential areas identified in the current study where a gap in shared knowledge between rDVMs and specialists may occur. The first is related to specialists’ repeating the work up performed in the field by the rDVM, or the specialist not executing the plan for care that the rDVM requested. Second was specialists’ recognition of rDVMs’ need for information about referred patients because of the rDVMs’ ongoing interaction and relationship with their clients. Differences between rDVMs’ and specialists’ understandings in these areas have the potential to interfere with their relationship, and act as barriers to communication. When rDVMs and specialists understand the other’s responsibilities and capabilities, relationship development is likely to be facilitated by shared knowledge, which can both be achieved by and, in turn, foster effective communication.

Participants in the present study expressed an expectation to have “collegial” relationships with those they refer to, of which trust and respect were components. This expectation is supported by an assertion in the AAEP referral guidelines\textsuperscript{b} that both rDVM and
specialist are responsible for creating a relationship of trust and respect through communication with each other and the client. A staff paper describing equine rDVMs’ experiences with cases referred Michigan State University’s Large Animal VTH found that participants desired greater respect from clinicians to which they referred. Respect has been defined as *a willingness to take into consideration one or another aspect of a person when one’s actions affect them.* Participants indicated that the specialist communicating with them in a timely fashion regarding the referred case, respecting their relationship with their client and involving them in treatment decisions for the patient while under the specialist’s care are ways in which collegial relationships can be fostered. The findings from human medicine and RC support the findings of the current study that respect and trust are related to the communication that occurs, and involvement of the rDVM in the care the horse receives during the referral process. Recognizing that trust and respect are core components of successful interpersonal relationships, specialists and rDVMs would likely benefit from spending time together reflecting on ways to build and strengthen the respect and trust between them through process that support frequent, timely, accurate, and problem-solving communications.

Results of the present study also identified the boundaries of care provided by the specialist and referral care center as important to rDVMs. Participants expressed concerns that some referral centers attempted to solicit the client that was referred for care. The issues of competition and client solicitation have been raised in a couple of commentaries regarding veterinary referrals where the authors question the appropriateness of referral centers performing routine work on referred patients or soliciting clients that were referred to them for care, in part due to the potential damage to the rDVM-specialist relationship that could result. Communication with and consideration of the other party are ways in which mutual respect can
be fostered between rDVMs and specialists, which is likely to enhance the quality of their relationship and the outcomes arising from the referral process.

Communication was a significant topic of conversation in the focus groups, and participants emphasized its central importance in the referral process. The communication participants desired was that which involved them in the patient’s care and which supported a strong working relationship between themselves and the specialist. Referring veterinarians’ desire to be kept informed about cases on a regular basis can be met through frequent and timely communication, as purported in RC.\textsuperscript{11} Frequent communication contributes to the development of strong relationships by increasing familiarity, and timely communication is essential to preventing delays and ensuring high quality outcomes.\textsuperscript{11} Participants also spoke to the goal of the communication they wished to receive, which was to keep them involved in their patient’s care. In the current study, this is a demonstration of how frequent and timely communication contributes to achieving shared knowledge and mutual respect. Participants touched on the use of trouble-shooting communication in relation to their expectation that communication should occur if a specialist wants to change the plan for referral care from that which the rDVM originally sent the horse to receive. This parallels the RC dimension of problem-solving communication, which is advocated to circumnavigate conflict, and promote the resolution of the issue at hand by focusing on a solution instead of blaming the other;\textsuperscript{11} this approach is also likely to support mutual respect through consideration of the other’s expertise and working through the issue. Authors of a commentary on the relationship between primary care veterinarians and specialists expressed that, to achieve optimum patient care, it is important for the rDVM and specialist to have efficient, open modes of communication which may include telephone, fax, or e-mail.\textsuperscript{1} The role of effective communication in successful referrals has been promoted in previous
The results of the present study, and research in veterinary and human medicine, suggests an influence of communication on the outcomes of referral care, including the relationship between rDVMs and specialists. As such, rDVMs and specialists may benefit from reflecting on how they communicate regarding referrals and consider developing strategies that would enhance frequent, timely, accurate, and problem-solving communication between them.

Given the parallels between RC and the expectations and needs of rDVMs identified in the current study, it is valuable to reflect on what can be done to enhance the degree of RC that occurs in the referral process within equine veterinary practice. RC can be increased or strengthened through organizational structure, such as the creation of staff positions whose purpose is to work across teams or divisions, or by holding interdepartmental meetings. A model using referral liaisons within a referral center has been reported; these individuals streamlined communication between rDVMs and specialists, and provided a consistent and familiar point of contact. The reported benefits of incorporating referral liaisons into the referral center included increased rDVM satisfaction and referral caseload.

Another strategy suggested to increase the degree of RC is the use of cross-functional protocols, which provide a framework for how the work of different individuals is coordinated. Our findings suggest this idea could be applied within the veterinary referral process through the development of a verbal or written referral road map. The formation of a referral road map by rDVM and specialist would involve an upfront negotiation of a plan to which both parties agree. This would necessitate communication regarding the expectations of both rDVMs and specialists, and be an opportunity for relationship building. Findings of the present study suggest the following areas would be important consideration for inclusion in developing a referral road
map: general goal(s) of the care provided depending upon the purpose of the referral, systems to support frequent, timely, accurate and problem solving communication, type of communications to be shared during the referral process, defined roles and responsibilities of each party while the horse is at the referral center (e.g., history to be sent, work to be done, limits of care to be provided), defined roles and responsibilities in how follow-up care is to be handled, communication process relating to the estimated costs of care and a process for communicating deviations from the roadmap. The creation and use of a referral road map ensures that both parties are comfortable upfront with the general plan for care; and also values the knowledge and experience of both parties as they are given an opportunity to share their thoughts and contribute to the formation of the plan. This in itself contributes to achieving mutual respect and shared goals, and sets up a framework for communication during the referral process, such that the process meets the needs of both parties.

The use of focus group methodology and subsequent thematic analysis allowed for the deep exploration of a topic about which little is known. The findings are not intended to be generalized to all equine veterinary referral situations, their application to other situations and contexts should be considered on a case-by-case basis. As with other research methodologies, there is the possibility of selection bias during participant recruitment. It is possible that those who volunteered to participate may have done so because they have stronger or different views than the broader population of equine rDVMs. It is also important to recognize that this investigation only explored the perspective of rDVMs; future research should include exploration of specialists’ perspective regarding the referral process.

In summary, equine rDVM participants desired referral care to be an extension of the care they provided, and as such, desired communication that involved them in the case, and that
engaged them in a respectful relationship with the specialist providing referral care. Further, the findings of the current study indicate that RC, including shared goals, shared knowledge, mutual respect, and timely, frequent, accurate and problem-solving communication, may offer an approach to strengthen the relationship between rDVMs and specialists.
Footnotes


d. “Gastroguard”, Gastroguard, Merial. Duluth, Georgia.

References


17. Forrest CB, Nutting PA, Starfield B, et al. Family physicians' referral decisions: Results from

Table 5.1: Equine Patient Referral Patterns of rDVM Participants (n=48) in 6 Focus Groups

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Chapter 6

Survey of Equine Referring Veterinarians’ Satisfaction with their Most Recent Equine Referral Experiences

The content is solely the responsibility of the author and does not necessarily represent the official views of the AVMA PLIT.

Prepared in the style of the Journal of the American Veterinary Medical Association.
Abstract

Objective – To investigate equine referring veterinarians’ satisfaction with their most recent referral experience, and factors considered by referring veterinarians when referring.

Design – Cross-sectional observational study - online survey.

Sample – 184 referring veterinarians and 87 specialists (referral care providers)

Procedures – An online survey was administered to both referring veterinarians and specialists. Referring veterinarian satisfaction with their most recent referral experience was evaluated. Both referring veterinarians and specialists were asked to identify factors that influence a referring veterinarian’s decision where to refer, and the top 3 factors they perceive are barriers to referral care.

Results – Median rDVM satisfaction with their most recent referral care experience was 80 out of 100 (mean 75, range 8-100). Referring veterinarians were least satisfied with “The competition the referral hospital poses to your practice” (mean 56.96, median 62, range 0-100). The top factor that rDVMs identified as influencing their decision where to refer was “quality of care”, while specialists identified “quality of communication and updates from the clinician”. The top barrier to referral care for rDVMs was “high cost of referral care”, and for specialists was “poor service provided to the client by the referral hospital.”

Conclusions and clinical relevance – Areas exist where referring veterinarians and specialists differ in what they view as important to the referral process. Exploring opportunities and resources to overcome these differences and their potential impacts on the outcome of referral care is likely to support referral hospitals’ efforts to improve caseload and ultimately to support high quality patient care.
Abbreviations

VTH: Veterinary Teaching Hospital
rDVM: referring veterinarian

Introduction

The proliferation of veterinary referral centres and higher number of board-certified specialists in the past few decades has resulted in increasing access to secondary and tertiary care for companion animals and horses. As such, higher numbers of patients are referred. Yet little is known about the referral process in veterinary medicine and the factors that contribute to positive outcomes of a referral, such as referring veterinarian (rDVM) satisfaction, specialist satisfaction, client satisfaction, and impact on patient health. A recent focus group study investigating equine rDVMs’ expectations of specialists and referral care found that participating rDVMs expected referral care to function as an “extension of their own care” (Chapter 5). This entailed a collegial relationship between rDVM and specialist, good communication between rDVM and specialist, recognition of the rDVMs’ relationship with their clients, rDVMs’ involvement with referral care, and respect for boundaries of the care provided by the referral center (Chapter 5).

The process of patient referral has been explored in human medicine, where patient referral to a specialist is commonplace, with referral occurring in 4.5-5% of patient visits. A primary-care physician’s personal knowledge of a specialist has been associated with the primary-care physician’s choice of a specialist to whom they refer. This choice impacts patient care indirectly, as it has been shown that the quality of care can differ amongst specialists. Further, it has also been shown that primary-care physicians’ satisfaction with their referral is a predictor of future referrals. Research in human medicine demonstrates how the primary-care physician’s experience with referral can influence patient care. Given the similarities between...
human and veterinary medicine, it is reasonable to expect rDVMs’ experiences and choices with referral to secondary and tertiary care may have similar influences on the outcomes of care.

In human medicine, factors that have been found to contribute to primary-care physicians’ satisfaction with referral care include the amount of feedback received from the specialist by the primary-care physician, as well as involvement of both the primary care physician and specialist in the provision of patient care. Feedback from the specialist also increased the physician’s perception of benefit to the patient’s care. Challenges and barriers experienced by primary care physicians during the referral process include poor communication with the specialist, disagreement between primary care practitioner and specialist regarding the role of the specialist, and poor availability of the specialist to provide care. As referral to secondary and tertiary care becomes more common in veterinary practice, understanding factors influencing rDVMs’ satisfaction, and the challenges experienced by rDVMs in relation to the process of veterinary referrals are important areas to explore within the various contexts of veterinary practice.

A recent study investigating rDVM satisfaction with the University of Prince Edward Island’s Veterinary Teaching Hospital (VTH) found that inefficiency in sending discharge statements and poor communication during the referral process influenced rDVMs’ satisfaction with their referral experience. In a staff paper reporting on an investigation of equine rDVMs referral experiences with the Michigan State University’s Large Animal VTH, the need for good communication between rDVM and specialist, as well as the specialist’s respect for the rDVM were highlighted as important components of the referral process. Determining the factors that contribute to equine rDVM satisfaction provides specialists and referral centers with the information necessary to better meet rDVMs’ needs, thus decreasing the potential for unmet
expectations and dissatisfaction, which may impact a rDVM’s willingness to refer cases, and as such, the care patients receive. Further, striving to increase rDVM satisfaction is likely to support the referral caseload of a referral hospital and therefore support the success of the practice.

The objective of the current study was to investigate equine rDVMs’ satisfaction with their most recent referral experience, and to determine the factors considered by rDVMs when determining where to refer a case.

**Materials and Methods**

This study protocol was reviewed and approved by the University of Guelph Research Ethics Board (13NV045). In this study, the term specialist was used to describe board-certified specialists or veterinarians that self-identified themselves as secondary or tertiary referral care providers.

**Study Participants**

Referring veterinarian participants were recruited by an initial email invitation (Appendix D.1) and one reminder email distributed via the listserv of the American Association of Equine Practitioners (AAEP) and the listserv of the Equine Clinician’s Network. Specialist participants were recruited by an email distributed to the American College of Veterinary Internal Medicine diplomates’ listserv, and the American College of Veterinary Theriogenologists’ listserv (Appendix D.2), as well as a notice posted to the private Facebook group for Diplomates of the American College of Veterinary Surgeons. Demographic information was collected as part of the survey for both rDVM and specialist participants. Participants were asked to self-identify their role in equine medicine at the start of the survey; the choice provided was “referring (primary care) veterinarian” or “specialist or referral care provider”.

**Development of the rDVM Satisfaction and Referral Decision-Making Questionnaire**
A survey exploring equine rDVM satisfaction with their most recent referral experience, referral decision-making, and barriers to referral care was developed in four phases. The first phase involved a focus group study (Chapter 5) investigating equine rDVMs’ expectations of equine specialists and referral care. In brief, six focus group interviews, each comprised of 7-9 equine rDVMs were conducted (n = 48). Participants received a $100 honorarium for their participation. Thematic analysis was used to identify common themes and ideas expressed by the focus group participants in relation to their needs and expectations of referral care.

Phase II involved using the themes and ideas from the focus group study to create an initial pool of 177 items relating to rDVMs’ expectations of referral care to be considered for the questionnaire. Two equine rDVMs (including the author) and an equine internal medicine specialist reviewed the initial item pool and evaluated each item for relevance, comprehensibility, and clarity on a scale of 1-10. The scores from each reviewer were then summed to form an aggregate score for each item. This score was then used to inform item reduction. Items were retained if the item had an overall aggregate score greater than 20, or if the item’s removal would have resulted in the loss of an important topic area identified during the focus groups. The three reviewers also assessed item redundancy at this time. Items perceived to be asking about very similar ideas or experiences were flagged as possibly redundant. Identified items were then examined to determine whether they were truly redundant, if they were, the item with the lower aggregate score was considered for deletion. This resulted in a pilot questionnaire of 78 items. At this point, the author then subdivided the items into 39 items regarding rDVM satisfaction with their most recent referral care experience, 28 items regarding a rDVM’s decision-making process of where to send a case, and 11 items that were considered to be barriers to referral care for rDVMs. Items were selected to be in a given category based on which
category they were most applicable to and how participants in the focus group study described the situation the item arose from; if an item was most applicable to referral satisfaction, then it was placed in the satisfaction scale, other items which were suitable for how a rDVM makes decisions regarding where to send cases were placed in the decision-making factor scale, and those which were relevant to barriers to referral care were placed in the barrier scale. A visual analogue scale was used for satisfaction items, ranging from 0 (Completely unsatisfied) to 100 (Completely satisfied). A visual analogue scale was also used for decision-making items, ranging from 0 (Does not factor into decision at all) to 100 (Factors heavily into decision). Initially, participants were asked to select and rank 5 items, from the list of 11 potential barriers, which they perceived to be most challenging with regard to referral care.

Phase III consisted of a pilot study inviting registered veterinarians of the Ontario Association of Equine Practitioners (OAEP) to complete the pilot questionnaire. Participants were recruited through an email invitation and one reminder email distributed to the OAEP listserv. The pilot questionnaire was delivered using an online survey tool (Limesurvey, Schmitz, 2012, Hamburg, Germany). Items within each section (satisfaction, decision-making, and barrier question groups) were presented to participants in randomized order for each participant by the online program. Descriptive statistics, item-item correlations, and item-total correlations were performed for the satisfaction and decision-making sections of the questionnaire. This analysis informed the second round of item reduction and questionnaire revision. Items were considered for removal from the questionnaire based on the following criteria: item-item correlation >0.8,10 low variation in responses (i.e., median score >90),10 or high number of missing responses (i.e., >10% of respondents did not answer the item).

Phase IV involved psychometric evaluation of the rDVM satisfaction section of the
questionnaire using data collected in the full survey (Appendix D.4) administration, delivered by an online tool (Limesurvey, Schmitz, 2012, Hamburg, Germany). A Referral Satisfaction Score (RSS) was calculated from the mean across all satisfaction items for each rDVM. Five global questions were asked of participants to assess support for the construct validity of the referral satisfaction section of the questionnaire.\textsuperscript{10} The first four, “Based on your most recent interaction, please answer the following”: “I would be completely happy to send another case to this clinician”; “The clinician’s approach was a good fit for me”; “I would recommend this clinician to a colleague”; “I would use this clinician if my own horse needed care” were scored using a visual analogue scale ranging from 0 (Completely disagree) to 100 (Completely agree). The fifth global question, “Overall, how satisfied were you with this referral experience?” was scored using a visual analog scale ranging from 0 (Completely Dissatisfied) to 100 (Completely satisfied). The \textit{a priori} hypothesis was that each of the global items would have a strong positive correlation with the RSS. In phase IV, the question pertaining to barriers to referral care asked participants to select and rank the three barriers that acted as barriers to referral care for rDVMs of the 11 barriers presented.

Exploratory factor analysis was performed to investigate the dimensionality of the Referral Satisfaction section of the questionnaire; and a Monte Carlo simulation was used to determine the final number of factors to retain (Monte Carlo PCA for Parallel Analysis, Watkins, 2000). Based on previous studies that have identified client satisfaction\textsuperscript{11} and patient satisfaction\textsuperscript{12,13} to be single-factor traits, it was hypothesized that rDVMs’ satisfaction with referral care would also be one-dimensional. Cronbach’s alpha was used to assess the internal consistency of the Referral Satisfaction section of the questionnaire.

The survey completed by specialists was comprised of the decision-making items and
barrier items used in the rDVM questionnaire (Appendix D.5 and D.6), and was delivered via an online tool (Limesurvey, Schmitz, 2012, Hamburg, Germany). Only pronouns were changed to make the questions applicable to specialists. A figure outlining the flow of the questionnaires completed by rDVMs and specialists is shown in Figure 1.

**Statistical Analysis**

Descriptive statistics were generated for all independent variables and the RSS. Frequency counts were generated for categorical variables, and mean, median, minimum, maximum, standard deviation for continuous variables. The specialist and rDVM responses to the decision-making items and barrier rankings are presented descriptively, with median scores and frequency counts. The normality of the RSS was investigated graphically and using the Shapiro-Wilk statistic. Spearman correlations between the RSS and global items were generated.

A new variable representing the number of missing satisfaction items was created. A graph of RSS and the number of missing satisfaction items was created to visually explore if the RSS changed with the number of missing satisfaction items. To investigate whether the RSS varied significantly with the number of missing satisfaction items, a series of linear regressions were generated on datasets including respondents with sequentially increasing numbers of missing satisfaction items. The RSS was the dependent variable and the number of missing satisfaction items was the independent variable. When the number of missing satisfaction items variable became significant, the dataset including respondents missing one less satisfaction item than was in the dataset where the number of missing satisfaction items was significant was used for all statistical analysis pertaining to satisfaction items.

A multivariable linear regression model was constructed to investigate the factors that contributed to an rDVM’s satisfaction with a given referral experience. Independence among all
variables considered for inclusion in the linear model of RSS was evaluated by generating Spearman correlations to assess collinearity. A manual backward approach was used, with a significance level of P<0.05. Variables were also assessed for potential confounding. If there was a change of >20% in the coefficients of any variable in the model, which plausibly may have a confounding relationship with the variable being removed, then the variable was retained in the model as a confounder. Once all variables remaining had P-values <0.05 or were retained due to confounding, interaction terms were investigated including all plausible combinations of main effect variables using the same backward manual approach. In the next step, all removed variables were re-introduced to the model one at a time in reverse order from which they were removed to determine if they were now significant. Model fit, outliers, and leverage for the final model were investigated by graphical observation of residuals plotted against predicted values and explanatory variables.

SAS (SAS Institute Inc., Cary, NC) was used for modeling purposes; all other statistical tests were conducted using SPSS v. 22 (IBM Corp., Armonk, NY).

Results

Two hundred and seventy-four equine veterinarians participated in the final administration of the survey. Throughout the results presented, the number of respondents for a particular questionnaire item is presented in brackets.

rDVM Participants

One hundred and eighty-seven participants identified themselves as referring (primary care) veterinarians. This group was comprised of 109 females and 63 males (n=172), with a median age of 47.5 years (mean 47.02, SD 12.83, min 25, max 72, n=176). Practice and referral demographic information for the participating rDVMs is presented in Table 6.1.
Specialist Participants

Eighty-seven respondents indicated they were specialists or referral care providers; 53 were female, and 33 were male (n=86). The median age of specialists was 43 years (mean 45.3, min 29, max 70, n=87). Of the 87 specialist respondents, 76 indicated that they were board certified, and 8 indicated that they were not (n=84). Some respondents held multiple specialty designations, and as such, the distribution of board-certification was: 55 internal medicine, 13 surgery, 1 radiology, 5 theriogenology, 9 emergency and critical care, and 3 sports medicine and rehabilitation. Additional practice demographic information for the participating specialists is presented in Table 6.2.

rDVM satisfaction with their most recent referral experience

The final referral care satisfaction instrument consisted of 29 items. Differences in numbers of respondents represents missing values. There was no impact of missing satisfaction items on the RSS when participants answered 21 or more of the 29 satisfaction items; therefore, all analyses pertaining to the satisfaction questionnaire were based on data from respondents who answered 21 or more items (n=184).

The mean RSS was 74.91 (median 79.77, range 8.48-100, SD 19.08, n=184) out of 100. The three lowest ranked satisfaction items were: “The competition the referral hospital poses to your practice” (mean 56.96, median 62, range 0-100, SD 37.29); “The way the clinician communicated the costs of care to you” (mean 63.36, median 75, range 0-100, SD 31.87); and “The clinician’s ability to provide cost effective care” (mean 65.08, median 70, range 0-100, SD 25.00). Descriptive statistics for the satisfaction items are presented in Table 6.3. Factor analysis of the satisfaction items revealed the satisfaction items had one underlying dimension using the criterion values produced from parallel analysis to determine the number of factors to retain; this
was supported by Scree plot and comprehensibility of factors. Spearman correlations between the RSS and the five global items (n=179) ranged from 0.795 to 0.870 (p<0.01).

**rDVM Decision-making**

The final decision-making instrument was comprised of 21 items. Differences were identified between rDVMs and specialists ratings of decision-making factors, Tables 6.4 and 6.5 respectively. “Quality of care” was the highest ranked decision-making factor by rDVMs (median 99, n=175), “Expertise of clinician” was ranked second (median 97, n=175), and “Ability of the hospital to provide comprehensive care” was ranked third (median 95, n=172). The top three criteria specialists indicated factored into a rDVM’s decision regarding where to refer a case were 1. “Quality of communication and updates from the clinician” (median 95, n=91), “Quality of care” (median 91, n=89), and “Ease of communication with the clinician” (median 90.5, n=90).

**Barriers to referral care**

As a result of the pilot study, where many respondents only ranked three top barriers; the final administration of the survey asked respondents to select and rank the top three barriers they experienced with respect to referral care. Referring veterinarians ranked the following items as the top three barriers to patient referral: “High cost of referral care”, “Lack of referring veterinarian involvement with case management”, and “Poor communication between clinician and referring veterinarian.” Specialists ranked “Poor service provided to the client by the referral hospital”, “High cost of referral care” and “Lack of collegiality between the clinician and the referring veterinarian” as the top barriers they perceived rDVMs faced when referring patients. The barrier rankings of rDVMs and specialists are presented in Tables 6.6 and 6.7 respectively.
Factors associated with rDVM satisfaction with the referral process

The distribution of the RSS was not normally distributed; however, the data were deemed robust enough to proceed with linear regression modeling because the kurtosis was high but not extremely high and linear regression can tolerate skewed data. Also, the data was distributed similar to an exponential distribution, for which inferences drawn from linear regression are valid. The variables that had a positive association with rDVM satisfaction were average time to receive a discharge statement and number of cases referred for emergency care per year. The identified average length of time to receive a discharge statement following the end of the patient’s treatment as estimated by rDVM respondents was 9 days (median 2, range 0-365, SD 39.60). Number of consultations with a specialist per year per year was found to have a positive association with rDVM satisfaction (Table 6.8). Two respondents were identified as outliers. When the model was run with them removed, number of cases referred for emergency care per year became non-significant (P-value>0.05). There was no clear reason to remove the two outliers from the model; therefore, they were retained.

Discussion

Findings of the present study suggest that in general equine rDVMs are satisfied with referral care. This is consistent with findings of a separate study of rDVM satisfaction with a VTH (large and small animal), which found that 70% of the rDVMs were satisfied with the overall referral experience provided. The current study identified opportunities for specialists and referral centers to enhance their delivery of referral services. Further, a recent focus group study investigating equine rDVMs expectations of referral care identified situations and areas in which rDVMs face challenges with the referral process, including competition posed by the referral hospital and communication with the specialist (Chapter 5).
Based on participants’ responses to individual satisfaction items in the current study, the area in which rDVMs appeared least satisfied with respect their most recent referral experience was the competition the referral hospital posed to their practice. Two commentaries\textsuperscript{14,15} have discussed the topic of referral centers competing with rDVMs’ practices. These commentaries, written by specialist veterinarians\textsuperscript{15} and a veterinary academician\textsuperscript{14}, suggest that referral hospitals should limit their care to the reason the animal was referred. The authors also promote communication between specialist and referring veterinarian in the event of extenuating circumstances, such as a client’s request to the specialist for a certain treatment or the need for treatment deemed to be in the best interest of the patient.\textsuperscript{14,15} Upfront communication aimed at resolving differences of opinion or potential misunderstandings has also been suggested based on the findings of the recent focus group study with equine rDVMs (Chapter 5).

Results of the current study indicate that rDVMs are less satisfied with communication regarding costs and how costs are managed, and that cost of referral care is the top barrier to referral care identified by participating rDVM. The cost-related satisfaction item “The way the clinician communicated the costs of care to you” clearly implicates that how rDVMs and specialists discuss costs is an area that may benefit from improvement. Interestingly, rDVMs’ were also less satisfied with “The clinician's ability to provide cost effective care”, which may also be related to the communication between rDVM and specialist regarding the care the horse receives and the respective costs. In veterinary medicine discussing costs of veterinary care is challenging for veterinarians and clients.\textsuperscript{11,16} The findings of the current study highlight the need for rDVM and specialist to consider their approach to communication about the costs of veterinary care. The use of communication skills, particularly empathy, and increasing efforts to develop partnerships with clients have been promoted as ways to improve communication about
costs within the context of veterinary medicine. These skills may also address the challenges associated with communicating costs between rDVM and specialists. Empathy is a communication skill that through its use has the opportunity to foster curiosity and respect between rDVMs and specialists because it involves the consideration of another’s perspective or experience. Empathy has two stages, the first is an intellectual understanding or awareness of another person’s experience and the second is a verbal or nonverbal communication of that awareness back to the other person. The use of empathy in referral situations before the care of the horse is transferred and while it is under the care of the specialist may contribute strong relationships between rDVM and specialist as it increases the likelihood of consideration of the other party’s perspective during the referral process. In turn, this may facilitate a positive referral experience for both rDVMs and specialists.

Results of the current study suggest rDVMs are more satisfied with referral care when they receive the discharge statement a short time after the horse leaves the referral hospital. This is consistent with another study where lack of timeliness of discharge statement was found to be a reason for decreased rDVM satisfaction with referral care at a VTH. Delay in providing the rDVM with the discharge statement also has the potential to influence patient care. A recent investigation of rDVM expectations of specialists found that rDVMs considered the timely receipt of a discharge statement to be essential because it often contains information that is important to the rDVM in providing the client and their horse with appropriate follow up care (Chapter 5). Addressing the timeliness with which the rDVM receives the discharge statement is an area of potential focus in the management of a referral hospital in order to promote rDVM satisfaction and enhance the delivery of coordinated patient care.

When considering why the rDVM satisfaction increased when the frequency of
consultation with a specialist increased, one plausible explanation is that consultations provide an opportunity for relationship building between the rDVM and specialist. Referring veterinarian participants in a recent focus group study perceived better case outcomes and improved communication between themselves and the specialist when they had an established relationship (Chapter 5). In companion animal practice, a consistent or long-term relationship between veterinarian and client was found to result in significantly higher ratings of satisfaction by clients at the end of an appointment when compared with satisfaction following first time veterinarian-client encounters. If we are to assume the proposed hypothesis is correct, then specialists and referral centers could pursue opportunities to enhance the rDVM and specialist relationship. This might include opportunities for interactions outside of case referral, such as newsletters for rDVMs, hospital open houses, or continuing education seminars. These events would provide an opportunity for relationship-building between rDVM and specialist, which may in turn increase rDVM satisfaction when they refer cases.

With regards to the inverse relationship found in the current study between rDVM satisfaction and number of emergency referrals per year, it is reasonable to consider the impact the circumstances that surround the referral may have. In emergency referral situations, the rDVM may have less choice of the specialist to whom they refer, and tensions are likely to be running higher for all parties involved (i.e., client, rDVM, specialist) because of the patient’s compromised health status. This could negatively impact the relationship and communication between rDVM and specialist. The halo effect, which theorizes that respondents base their responses on their overall experiences instead of the criteria on which they are being asked to rate the person or experience, may also explain the decreased satisfaction of rDVMs who refer higher numbers of cases for emergency care per year. Regardless of the reasoning, focusing on
the process of emergency referrals may provide an opportunity for referral practices to develop new relationships with rDVMs and broaden their own client base. Given the increased levels of tension and complexity in emergency referrals, if a positive outcome is to result, the importance of meeting the rDVMs expectations is likely increased. Recent research exploring equine rDVMs expectations of specialists (Chapter 5) would suggest meeting rDVMs’ expectations would include providing the rDVM with timely updates on the patient’s progress, involving the rDVM in the decision-making progress regarding the care the horse receives while at the referral hospital, and providing a discharge statement promptly at the end of the horse’s stay.

Findings of the present study indicate that a number of criteria influence a rDVM’s decision of where to refer a case. In many referral situations, the rDVM is trusting the specialist and the referral hospital to act as an extension of their care while providing care to the patient and client that they cannot (Chapter 5); therefore, it is not surprising that quality of care related factors were identified by participating rDVMs to be the top criterion considered when making a referral. It is also important to consider the decision-making factors that rDVMs and specialists rated differently as they represent potential gaps in understanding, and could become barriers to positive rDVM and specialist outcomes. Closing these gaps is likely dependent upon frequent and timely use of effective communication between specialists and rDVMs. Open-ended questions are a valuable communication tool that can be used to close potential gaps by learning about the needs of the other before and during the referral. Open-ended questions invite a thoughtful response, as they do not constrain the respondent to a ‘yes’ or ‘no’ answer.17 This is beneficial to the referral process because it promotes the development of a shared understanding of the position of both rDVM and specialist, thus reducing the potential for misunderstandings and unknown expectations.
The results of the current study indicate that the top barriers to referral care perceived by rDVMs are similar to those specialists perceive them to experience; although the order in which they were identified differs. It is important to note the subtle differences in the rankings of the barriers between rDVMs and specialists; lack of involvement was a top barrier for rDVMs, but not specialists, and specialists identified poor service provided to the client and lack of collegiality while rDVMs did not. Participants in the focus group study exploring rDVMs’ expectations of specialists and referral centers identified rDVM involvement during referral care and communication that keeps the rDVM up to date with the case is important to rDVMs (Chapter 5). When there is not a common understanding of the problems in a situation, the likelihood of resolution decreases. For instance, a study of rDVMs and VTH veterinarians found that 80% of VTH veterinarians report contacting the rDVM prior to sending a discharge summary; whereas only 50% of rDVMs indicate this occurs. The difference in perception about the amount of communication occurring is likely to lead each party to different conclusions regarding how communication between rDVM and specialist following patient discharge may need to change. Differences in perception between rDVM and specialist, such as those found by the current study and Towell et al., can represent blind spots which serve as significant barriers to change because what is perceived by one is not the reality of the other. Awareness of the barriers rDVMs face with respect to referral care will allow specialists and referral hospitals to better identify areas to direct their efforts and energy to work with rDVMs to decrease the impact of these barriers for all involved.

The current study used non-random sampling, as online recruitment and data collection methods were employed; this may have introduced a selection bias because only those who saw the notice online could have chosen to participate. Further, individuals with a vested interest or
strong feelings on the subject of referral care may have been more motivated to participate. Both of these types of selection bias may have biased the sample of respondents away from those of the average equine veterinarian. Respondents were also asked to base their responses on their most recent referral experience, this may have led to recall bias as participants may not have remembered what transpired accurately. Future directions for research include the use of a more inclusive sampling strategy and investigating what case-related factors may influence rDVMs’ satisfaction with referral care.

The findings of the current study provide insight into what contributes to rDVM satisfaction, the factors that rDVMs consider when deciding where and to whom to refer a case, and what is most challenging to rDVMs with respect to referral care, as well as comparing rDVM and specialist perspectives of factors that influence rDVMs decisions of where to refer a case and the barriers rDVMs face with referral care. This information can be used to consider opportunities for increasing collaboration and partnership between rDVMs and specialists, to optimize specialists’ and referral centers’ relationships with their rDVM clientele, and ultimately to support high quality patient care.
Footnotes


References


Figure 1: Survey components completed by rDVMs and Specialists
Table 6.1: rDVM Demographic Statistics (total respondents n=187)

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<td>10 (0,200)</td>
</tr>
<tr>
<td>Median (min, max)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number emergencies referred per year</td>
<td>172</td>
<td>10 (0.80)</td>
</tr>
<tr>
<td>Median (min, max)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consultations per year</td>
<td>172</td>
<td>15 (1,250)</td>
</tr>
<tr>
<td>Median (min, max)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hours to closest referral hospital</td>
<td>173</td>
<td>1 (0.6)</td>
</tr>
<tr>
<td>Median (min, max)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hours to hospital referred to most</td>
<td>168</td>
<td>1.5 (0.9)</td>
</tr>
<tr>
<td>Median (min, max)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of Work that is equine</td>
<td>175</td>
<td>100 (10,100)</td>
</tr>
<tr>
<td>Median (min, max)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*The scale for this item was 1-100, with 1=Not strong at all, 100 = Very strong*
Table 6.2: Specialist Demographic Statistics (total respondents n=87)

<table>
<thead>
<tr>
<th>Demographic variable</th>
<th>n</th>
<th>Description Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of referral cases seen per year</td>
<td>73</td>
<td>Median (min, max) 300 (0, 2000)</td>
</tr>
<tr>
<td>Number of consultations conducted per year</td>
<td>80</td>
<td>Median (min, max) 100 (4, 2000)</td>
</tr>
<tr>
<td>Worked in primary care before specialty practice (%)</td>
<td>Yes 52</td>
<td>62 No 32</td>
</tr>
<tr>
<td>Years working in referral care</td>
<td>85</td>
<td>Median (min, max) 11 (1, 36)</td>
</tr>
<tr>
<td>Currently provide primary care (%)</td>
<td>Yes 40</td>
<td>48 No 43</td>
</tr>
<tr>
<td>Role in referral practice (%)</td>
<td>Owner 15</td>
<td>18.5 Associate 30</td>
</tr>
<tr>
<td>Type of referral hospital employed by (%)</td>
<td>Private referral center 34</td>
<td>42 Veterinary teaching hospital 44</td>
</tr>
</tbody>
</table>
Table 6. 3: Descriptive Statistics for Satisfaction Items and RSS

<table>
<thead>
<tr>
<th>Item</th>
<th>N</th>
<th>Mean</th>
<th>Median</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>The quality of care provided</td>
<td>183</td>
<td>88.40</td>
<td>94</td>
<td>15.67</td>
<td>23</td>
<td>100</td>
</tr>
<tr>
<td>The ease of arranging for the horse to receive care</td>
<td>178</td>
<td>88.01</td>
<td>93.5</td>
<td>16.47</td>
<td>27</td>
<td>100</td>
</tr>
<tr>
<td>The expertise of the clinician(s)</td>
<td>181</td>
<td>87.34</td>
<td>93</td>
<td>17.23</td>
<td>15</td>
<td>100</td>
</tr>
<tr>
<td>The collegiality between the clinician and yourself</td>
<td>183</td>
<td>82.60</td>
<td>93</td>
<td>23.56</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>The way the clinician supported your efforts to provide the patient with the best possible care</td>
<td>181</td>
<td>82.46</td>
<td>90</td>
<td>20.85</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>The relationship between the clinician and yourself</td>
<td>180</td>
<td>81.60</td>
<td>90</td>
<td>23</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>The respect shown to you by the clinician</td>
<td>180</td>
<td>80.23</td>
<td>90</td>
<td>24.38</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>The use of technology for communication (text, email, fax)</td>
<td>170</td>
<td>79.29</td>
<td>90.5</td>
<td>27.34</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>How the referral experience impacted your relationship with your client</td>
<td>174</td>
<td>79.22</td>
<td>85</td>
<td>21.29</td>
<td>4</td>
<td>100</td>
</tr>
<tr>
<td>Your ability to get a hold of the clinician in charge of the case</td>
<td>179</td>
<td>78.61</td>
<td>89</td>
<td>25.07</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>How the clinician followed through with the plan for care you requested</td>
<td>174</td>
<td>78.07</td>
<td>85.5</td>
<td>23.32</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>The primary/routine care was left to you</td>
<td>174</td>
<td>77.91</td>
<td>89</td>
<td>26.43</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>The communication you had with the clinician before they saw the horse</td>
<td>183</td>
<td>77.33</td>
<td>87</td>
<td>26.39</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>The treatment options provided to the client by the clinician</td>
<td>176</td>
<td>77.32</td>
<td>86</td>
<td>23.68</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>The clinician's respect for your knowledge and expertise</td>
<td>181</td>
<td>77.23</td>
<td>85</td>
<td>24.97</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>The adaptability of the clinician, given the client and horse's situation</td>
<td>178</td>
<td>75.55</td>
<td>82</td>
<td>23.87</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>The accuracy of the cost estimate provided</td>
<td>146</td>
<td>73.70</td>
<td>80</td>
<td>25</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>The communication between the clinician and yourself about the horse's aftercare</td>
<td>181</td>
<td>71.91</td>
<td>80</td>
<td>29.07</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>The thoroughness of the discharge statement you received</td>
<td>176</td>
<td>69.99</td>
<td>81.5</td>
<td>31.57</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>The way the clinician involved you in the horse's care</td>
<td>176</td>
<td>69.39</td>
<td>76</td>
<td>28.89</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>The way the clinician kept you up to date with what was going on</td>
<td>178</td>
<td>68.72</td>
<td>83</td>
<td>32.17</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>The amount of new information you learned from the clinician</td>
<td>174</td>
<td>68.57</td>
<td>75</td>
<td>26.87</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>The cost of care provided</td>
<td>168</td>
<td>68.56</td>
<td>75</td>
<td>24.56</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>The length of time it took to receive the discharge</td>
<td>175</td>
<td>68.33</td>
<td>83</td>
<td>33.53</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>The amount of medication sold to the client for the aftercare of the horse</td>
<td>158</td>
<td>68.24</td>
<td>75</td>
<td>29.98</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>The components of your work up that were repeated by the hospital</td>
<td>171</td>
<td>68.18</td>
<td>75</td>
<td>26.89</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>The clinician's ability to provide cost effective care</td>
<td>173</td>
<td>65.08</td>
<td>70</td>
<td>25</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>The way the clinician communicated the costs of care to you</td>
<td>162</td>
<td>63.36</td>
<td>75</td>
<td>31.87</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>The competition the referral hospital poses to your practice</td>
<td>174</td>
<td>56.96</td>
<td>62</td>
<td>37.29</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>RSS Score</td>
<td>184</td>
<td>74.91</td>
<td>79.77</td>
<td>19.55</td>
<td>8.48</td>
<td>100</td>
</tr>
</tbody>
</table>
### Table 6.4: rDVMs' ratings of factors that influence a rDVM's decision of where to refer a case

<table>
<thead>
<tr>
<th>Criterion</th>
<th>n rDVM</th>
<th>Median score for rDVMs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of care</td>
<td>175</td>
<td>99</td>
</tr>
<tr>
<td>Expertise of clinician</td>
<td>175</td>
<td>97</td>
</tr>
<tr>
<td>Ability of the referral hospital to provide comprehensive care</td>
<td>172</td>
<td>95</td>
</tr>
<tr>
<td>The referring veterinarian’s belief that the client will have a positive experience</td>
<td>174</td>
<td>94</td>
</tr>
<tr>
<td>Previous experience referring cases to the clinician</td>
<td>174</td>
<td>93</td>
</tr>
<tr>
<td>Ease of communication with the clinian</td>
<td>174</td>
<td>90</td>
</tr>
<tr>
<td>Likelihood the clinician will do what the horse was sent to have done</td>
<td>172</td>
<td>90</td>
</tr>
<tr>
<td>Quality of communication and updates from the clinician</td>
<td>174</td>
<td>90</td>
</tr>
<tr>
<td>Collegiality between the clinician and the referring veterinarian</td>
<td>172</td>
<td>90</td>
</tr>
<tr>
<td>The referring veterinarian’s confidence that the client will be returned to their practice</td>
<td>160</td>
<td>88.5</td>
</tr>
<tr>
<td>Ease of arranging referral</td>
<td>168</td>
<td>87</td>
</tr>
<tr>
<td>The referring veterinarian’s confidence that the primary/routine care will be left to them</td>
<td>162</td>
<td>83</td>
</tr>
<tr>
<td>The availability of the clinician for consultation regarding non-referred patients</td>
<td>173</td>
<td>81.5</td>
</tr>
<tr>
<td>The clinician includes the referring veterinarian as a team member in the patient’s care</td>
<td>169</td>
<td>81</td>
</tr>
<tr>
<td>Accurate estimate for cost of care</td>
<td>167</td>
<td>76</td>
</tr>
<tr>
<td>Likelihood the clinician will include the referring veterinarian in decision-making regarding patient care</td>
<td>161</td>
<td>75</td>
</tr>
<tr>
<td>The referral hospital does not compete with the referring veterinarian’s practice</td>
<td>160</td>
<td>75</td>
</tr>
<tr>
<td>Openness of the referral hospital to have the referring veterinarian present to observe/learn</td>
<td>161</td>
<td>73</td>
</tr>
<tr>
<td>The amount of knowledge the referring veterinarian gains from working with the clinician</td>
<td>167</td>
<td>73</td>
</tr>
<tr>
<td>Likelihood that the clinician will repeat the referring veterinarian’s work up</td>
<td>153</td>
<td>50.5</td>
</tr>
<tr>
<td>The referral hospital is unlikely to provide medication for aftercare that the referring veterinarian could</td>
<td>149</td>
<td>50</td>
</tr>
</tbody>
</table>
Table 6.5: Specialists’ ratings of factors that influence a rDVM’s decision of where to refer a case

<table>
<thead>
<tr>
<th>Criterion</th>
<th>n Specialists</th>
<th>Median score for Specialists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of communication and updates from the clinician</td>
<td>91</td>
<td>95</td>
</tr>
<tr>
<td>Quality of care</td>
<td>89</td>
<td>91</td>
</tr>
<tr>
<td>Ease of communication with the clinician</td>
<td>90</td>
<td>90.5</td>
</tr>
<tr>
<td>Previous experience referring cases to the clinician</td>
<td>90</td>
<td>90</td>
</tr>
<tr>
<td>Collegiality between the clinician and the referring veterinarian</td>
<td>90</td>
<td>90</td>
</tr>
<tr>
<td>The referring veterinarian’s confidence that the client will be returned to their practice</td>
<td>87</td>
<td>90</td>
</tr>
<tr>
<td>Expertise of clinician</td>
<td>90</td>
<td>88.5</td>
</tr>
<tr>
<td>The referring veterinarian’s belief that the client will have a positive experience</td>
<td>89</td>
<td>87</td>
</tr>
<tr>
<td>Ability of the referral hospital to provide comprehensive care</td>
<td>88</td>
<td>85</td>
</tr>
<tr>
<td>The referral hospital does not compete with the referring veterinarian’s practice</td>
<td>84</td>
<td>82.5</td>
</tr>
<tr>
<td>Ease of arranging referral</td>
<td>90</td>
<td>80.5</td>
</tr>
<tr>
<td>The referring veterinarian’s confidence that the primary/routine care will be left to them</td>
<td>83</td>
<td>80</td>
</tr>
<tr>
<td>The clinician includes the referring veterinarian as a team member in the patient’s care</td>
<td>87</td>
<td>80</td>
</tr>
<tr>
<td>The availability of the clinician for consultation regarding non-referred patients</td>
<td>82</td>
<td>79.5</td>
</tr>
<tr>
<td>Likelihood the clinician will do what the horse was sent to have done</td>
<td>85</td>
<td>79</td>
</tr>
<tr>
<td>Accurate estimate for cost of care</td>
<td>83</td>
<td>74</td>
</tr>
<tr>
<td>Likelihood the clinician will include the referring veterinarian in decision-making regarding patient care</td>
<td>82</td>
<td>71</td>
</tr>
<tr>
<td>The referral hospital is unlikely to provide medication for aftercare that the referring veterinarian could</td>
<td>78</td>
<td>60.5</td>
</tr>
<tr>
<td>Openness of the referral hospital to have the referring veterinarian present to observe/learn</td>
<td>83</td>
<td>60</td>
</tr>
<tr>
<td>The amount of knowledge the referring veterinarian gains from working with the clinician</td>
<td>85</td>
<td>60</td>
</tr>
<tr>
<td>Likelihood that the clinician will repeat the referring veterinarian’s work up</td>
<td>78</td>
<td>45</td>
</tr>
</tbody>
</table>
Table 6.6: rDVM barrier ranking frequencies (n=186)

<table>
<thead>
<tr>
<th></th>
<th>% (n) rDVMs Ranking as a Top 3 Barrier</th>
</tr>
</thead>
<tbody>
<tr>
<td>High cost of referral care</td>
<td>26.4 (131)</td>
</tr>
<tr>
<td>Lack of referring veterinarian involvement with case management</td>
<td>16.9 (84)</td>
</tr>
<tr>
<td>Poor communication between clinician and referring veterinarian</td>
<td>15.5 (77)</td>
</tr>
<tr>
<td>Distance to referral hospital</td>
<td>13.5 (67)</td>
</tr>
<tr>
<td>Clinician does not provide the care for which the horse was referred</td>
<td>6.9 (34)</td>
</tr>
<tr>
<td>Referring veterinarian loses client following referral</td>
<td>6.5 (32)</td>
</tr>
<tr>
<td>Poor service provided to the client by the referral hospital</td>
<td>5.8 (29)</td>
</tr>
<tr>
<td>Lack of collegiality between the clinician and the referring veterinarian</td>
<td>4.8 (24)</td>
</tr>
<tr>
<td>Poor availability of referral hospital to provide referral care</td>
<td>2 (10)</td>
</tr>
<tr>
<td>Poor quality of care</td>
<td>1 (5)</td>
</tr>
<tr>
<td>Low cost of referral care</td>
<td>0.6 (3)</td>
</tr>
</tbody>
</table>
Table 6.7: Specialist barrier ranking frequencies (n=88)

<table>
<thead>
<tr>
<th>Barrier</th>
<th>% (n) Specialists Ranking as a Perceived Top 3 Barrier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor communication between clinician and referring veterinarian</td>
<td>24.2 (63)</td>
</tr>
<tr>
<td>Poor service provided to the client by the referral hospital</td>
<td>15.8 (41)</td>
</tr>
<tr>
<td>High cost of referral care</td>
<td>13.8 (36)</td>
</tr>
<tr>
<td>Lack of collegiality between the clinician and the referring veterinarian</td>
<td>12.7 (33)</td>
</tr>
<tr>
<td>Referring veterinarian loses client following referral</td>
<td>9.2 (24)</td>
</tr>
<tr>
<td>Poor quality of care</td>
<td>6.9 (18)</td>
</tr>
<tr>
<td>Distance to referral hospital</td>
<td>6.5 (17)</td>
</tr>
<tr>
<td>Lack of referring veterinarian involvement with case management</td>
<td>5.8 (15)</td>
</tr>
<tr>
<td>Clinician does not provide the care for which the horse was referred</td>
<td>2.7 (7)</td>
</tr>
<tr>
<td>Poor availability of referral hospital to provide referral care</td>
<td>2.3 (6)</td>
</tr>
<tr>
<td>Low cost of referral care</td>
<td>0 (0)</td>
</tr>
<tr>
<td></td>
<td>Estimate</td>
</tr>
<tr>
<td>--------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>Constant</td>
<td>77.4630</td>
</tr>
<tr>
<td>Average length of time to receive discharge</td>
<td>-0.1673</td>
</tr>
<tr>
<td>Number of cases referred for emergency care per year</td>
<td>-0.2437</td>
</tr>
<tr>
<td>Number of consults with specialists per year</td>
<td>0.1092</td>
</tr>
</tbody>
</table>
Chapter 7

Conclusions
**Study background and purpose**

In human medicine, the importance of interpersonal relationships to the process and outcomes of care are well recognized.\(^1\)-\(^3\) Relationship-centered care is a framework described for care in human medicine that highlights the value of physician-patient, physician-colleague, physician-community, and physician-self relationships.\(^3\) It has been shown that both the physician-patient and physician-colleague relationships can improve outcomes of care, including health outcomes (e.g., symptom and functional improvement).\(^4\),\(^5\) The research that has been conducted in human medicine suggests important avenues for investigation in veterinary medicine.

Research in companion animal veterinary medicine has explored veterinarian-client relationships,\(^6\)-\(^8\) veterinarian-colleague relationships,\(^9\) and veterinary teams.\(^10\),\(^a\) Within veterinarian-client relationships, there has been a focus on veterinarian-client communication.\(^6\),\(^7\),\(^8\),\(^11\)-\(^14\) The veterinarian-client relationship and veterinarian-client communication have been linked to outcomes of care, including adherence to recommendations.\(^6\) In equine medicine, less is known. A 2009 study reported the top 4 criteria considered by horse owners when selecting an equine veterinarian, which were the veterinarian’s competence, horse-handling skills, performance and communication.\(^15\) A marketing study conducted by the American Association of Equine Practitioners demonstrated the importance of the equine veterinarian-client relationship, in which 43% of respondents (n=6148) agreed that their veterinarian “is a good friend of [theirs]”, and that 55% of respondents had used the same veterinarian for at least six years.\(^b\) Although this offers a beginning to our understanding, there is much that remains unknown about veterinarian-client relationships and veterinarian-client communication in equine practice.
The work described in this thesis sought to contribute to the growing body of knowledge regarding interpersonal relationships in veterinary practice by exploring veterinarian-client and referring veterinarian-specialist relationships in equine practice. The findings of this body of research described in this thesis provide valuable information that can be used to strengthen partnerships and enhance collaboration between referring veterinarians and specialists, as well as veterinarians and clients, in pursuit of improving horse health.

**Summary of findings**

This thesis consists of four separate studies: a focus group investigation into equine caretakers’ expectations of equine veterinarians and equine veterinarians’ perceptions of caretakers’ expectations; a survey study of equine client satisfaction with their most recent equine veterinary appointment; a focus group exploration of equine referring veterinarians’ expectations of specialists and referral care; and a survey study assessing equine referring veterinarian satisfaction with their most recent referral experience.

The first study involved nine equine caretaker focus groups (n=46) and four veterinarian focus groups (n=25), which were analyzed via thematic analysis. This study sought to determine equine caretakers’ expectations of equine veterinary care and how equine veterinarians perceived equine caretakers’ expectations. Six themes of equine caretakers’ expectations were identified: financial aspects of veterinary care, veterinarian-client communication, veterinarian-client relationship, veterinarian-horse relationship, veterinarian’s ability, and customer service. This thesis focused on two of these identified themes, financial aspects of veterinary care and the veterinarian-client relationship, due to their links to other themes and the potential for them to have far-reaching implications for both veterinarian and client.

The theme of financial aspects of veterinary care included several important equine
caretaker expectations. Equine caretakers expected veterinarians to discuss costs of care with them and to provide them with options including prognosis and cost information when there were choices about how the horse could be treated. Cost information was described as important information that assisted caretakers’ decision-making. Caretakers also wanted the veterinarian to have knowledge of their unique situation, such that the recommendations took into consideration the caretaker and their horse. Veterinarian participants spoke about generalizations based on the equine industry being discussed, with respect to clients and the financial aspects of veterinary care. Veterinarians also reported challenges in discussing invoices and payment with clients due to feelings of discomfort with the topic.

The same focus group study identified a number of caretaker expectations regarding the veterinarian-client relationship. Caretakers wanted to have a personal relationship with their veterinarian, built on open communication and the veterinarian having knowledge of them as an individual. The importance of the veterinarian’s “stall-side” manner was also described by participants to impact their willingness to work with a veterinarian, and to contribute to whether the veterinarian and caretaker were compatible. Veterinarians’ spoke about their relationships with clients being a key to success in practice.

Based on the results of the caretaker focus groups, an observational study was designed to investigate the satisfaction of equine caretakers with their most recent equine veterinarian visit. The results of the questionnaire indicate that overall, equine caretakers (n = 1577) were satisfied with the care they receive. The aspect of the veterinary visit that was scored least satisfying by participating caretakers was the way the veterinarian communicated about costs. A logistic regression model was generated to determine what factors influenced whether a client was satisfied. Findings identified the stronger the bond the client has with their horse, the more
frequently they worked with the veterinarian. As well, increasing client age contributed to the client being satisfied with the visit. The time that had elapsed since the veterinarian’s visit, and increasing perceived veterinarian age, were found to be associated with the client being less satisfied with the visit. The findings of the survey study provide valuable information about what factors influence client satisfaction in equine veterinary practice, as well as suggesting ways equine veterinarians may improve their clients’ satisfaction.

The focus group study investigating equine referring veterinarian expectations of specialists and specialty care included a total of 48 equine referring veterinarians participating in six audio-recorded focus groups, which were subsequently transcribed and analyzed using thematic analysis. Referring veterinarians’ overarching expectation was that referral care be an extension of the care they themselves provide to their clients and patients. Important aspects of this expectation included the referring veterinarians’ involvement during referral care, a collegial relationship between referring veterinarian and specialist, the communication that occurred between referring veterinarian and specialist, and the boundaries or limits of care provided by the referral hospital. A motivator of these expectations described by participants was their relationship with their clients.

The last study conducted was a follow-up to the equine referring veterinarian focus group study, and investigated the satisfaction of equine referring veterinarians with their most recent referral experience through a survey tool. This study also investigated specialists’ perceptions of what factors they believed influenced where a referring veterinarian decides to send their cases and the barriers that referring veterinarians face when referring cases. The results indicate that overall, the participating equine referring veterinarians were satisfied with their most recent referral experience. There were discrepancies in the criteria referring veterinarians considered
most heavily when determining where to refer a case and the criteria that specialists perceived to be important to referring veterinarians. “Quality of care” was the top decision-making factor considered by referring veterinarians when choosing where to refer a case, whereas “quality of communication and updates from clinician” was the top factor as perceived by specialists. Similarly, differences were noted in the barriers referring veterinarians and specialists identified as being challenging with respect to referral care; the top barrier for referring veterinarians was “high cost of referral care”, while specialists identified “poor communication between clinician and referring veterinarian” as the top barrier they perceived referring veterinarians to face. A multivariable linear regression was generated to determine the factors that influenced the degree to which an equine referring veterinarian was satisfied with the referral experience. An increasing number of referral consultations per year was found to increase satisfaction, while the length of time to receive discharge statements following patient discharge and the number of patients referred for emergency care per year were found to decrease referring veterinarian satisfaction with their most recent referral care experience.

This thesis contributes valuable information to the field of relationship-centered care in equine veterinary medicine. The findings of the veterinarian-client studies describe the importance of a strong veterinarian-client relationship to the caretaker, and suggest ways in which that relationship impacts the care the horse receives. Further, the qualitative studies provide insight into how the veterinarian-client relationship may be strengthened, namely through relationship-building communication, as this allows the veterinarian to gain first-hand knowledge of the client. In turn, this enables them to provide care to the client’s horse that is likely to meet the needs of both the horse and client. The studies that investigated the relationship between referring veterinarians and specialists support the use of a broader
definition of relationship-centered care in veterinary medicine, one that includes not only the veterinarian-client relationship but those among veterinarians as well. The value of the relationship that exists between referring veterinarian and specialist, and the importance of the communication that occurs, were primary findings of these studies. The discrepancies noted in how referring veterinarians and specialists view certain aspects of referral care sheds light on areas which may impede effective communication and strong relationships between them. As equine veterinary medicine moves forward relationship-centered care is a valuable framework to use when seeking to understand the complex relationship between interpersonal relationship.

**Limitations**

As with all scientific studies, the body of work described in this thesis has limitations. The strength of focus group methodology is its ability to provide a rich understanding of an area about which little is known. However, it does limit the extent to which the results can be generalized to larger populations than examined in the study. When considering the applicability of the results to another population, consideration of the similarities and differences of the populations is important. Further, focus group research can be subject to biases introduced by group dynamics, such as the dominant influence of one participant, which could result in the opinions of that person skewing the data from that group. There is also risk of participants being influenced by the moderator of the focus groups. In both focus group studies, the use of a trained focus group moderator helped to decrease the potential for this to occur. For the client focus groups specifically, the moderator had no knowledge of equine veterinary medicine or horses in general, therefore minimizing the potential for her to influence participants.

The online administration of both surveys presented in this thesis may have led to a biased pool of participants because only those with Internet access could respond. The use of
social media to recruit participants for the client satisfaction survey may also have led to selection bias because individuals that do not use social media are unlikely to have participated. The selection biases described could have resulted in the study populations not being representative of the larger populations of horse owners and equine referring veterinarians.

**Key recommendations**

Based on the findings of the studies within this thesis, a number of key recommendations may be made:

- The veterinarian-client partnership can be strengthened when the veterinarian explores their client’s unique situation, client’s relationship with their horse, and client’s expectations of the veterinarian and veterinary care.
- Veterinarians should ensure that they discuss costs with equine clients including a discussion of the options for care in a way that the client is able to determine which care is most appropriate and is suitable given their financial situation.
- Opportunities for specialists to support and strengthen the relationship a referring veterinarian has with their client may exist through the occurrence of timely specialist-referring veterinarian communication, supporting the care decisions made by the referring veterinarian, and returning care of the patient to the referring veterinarian as soon as appropriate.
- Specialists and referring veterinarians may benefit from forming a referral road map prior to the transfer of client and patient care, such that the roles and responsibilities of each party throughout the referral process have been mutually agreed upon from the outset of the referral experience.
Future directions

The present thesis highlights linkages between communication and relationships and suggests several avenues for further investigation pertaining to communication, interpersonal relationships, and collaboration in veterinary medicine.

Further analysis of how relationships between clients and veterinarians, as well as referring veterinarians and specialists, are formed, and the role that communication plays would be a meaningful addition to our understanding of interpersonal relationships in veterinary practice. One way that equine veterinarian-client communication and relationships could be further explored is through audio or videotape analysis of equine veterinary appointments. This would allow for investigation of the communication styles, patterns, and skills used by equine veterinary practitioners and clients. A better understanding of how equine veterinarians communicate can suggest areas for development and contribute to the body of knowledge regarding veterinarian-client communication, as well as providing insight into how communication contributes to relationships in veterinary practice.

The exploration of referring veterinarian expectation of specialists and referral care was limited to equine medicine. Further research in this area should include other areas of veterinary medicine, including companion animal medicine. In the field of companion animal veterinary medicine, patient referral and the existence of care teams that extend beyond one veterinary clinic may be more common due to the prevalence of emergency and out-of-hours clinics that provide care to companion animals. Thus, it is important to investigate how veterinarians work with each other in these situations. There is also an opportunity to investigate the relational coordination in companion animal referral situations, given how well the model of relational coordination appeared to fit with respect to the equine referral process. Additionally, the
investigation in the present thesis included only the referring veterinarian perspective; exploring the experiences, expectations and needs of specialists regarding referral care in equine and other areas of veterinary medicine would be of great benefit. It would allow for a more comprehensive understanding of the relationship dynamics of specialists and referring veterinarians, as well as further assisting in the identification of barriers to communication and relationships between referring veterinarians and specialists.

Lastly, investigating how interpersonal relationships (i.e., veterinarian-client, referring veterinarian-specialist) and communication occurring in equine medicine impact the outcomes of care is an important next step. Outcomes that have been investigated in companion animal medicine include client satisfaction, adherence to recommendations, and veterinarian satisfaction. Conducting this research in equine veterinary practice will support veterinarians in their efforts to provide high quality care for their patients and clients, as well as for the veterinarians themselves.
Footnotes

a. Moore IC. Exploring and evaluating veterinary team effectiveness in companion animal practice. MSc thesis, Department of Population Medicine, University of Guelph, Guelph, ON, Canada, 2013.


References


APPENDIX A

A focus group study of equine caretakers’ and veterinarians’ perceptions of the financial aspects of equine veterinary care

A.1: Veterinarian Recruitment Letter
A.2: Veterinarian Follow-up Phone Script
A.3: Veterinarian Consent Form
A.4: Veterinarian Focus Group Discussion Guide
A.5: Veterinarian Demographic Form
A.6: Caretaker Recruitment Poster
A.7: Caretaker Focus Group Discussion Guide
A.8: Caretaker Demographic Form
A.9: Thematic Map of Caretakers’ Needs and Expectations of Equine Veterinarians
February 27, 2012

Dear Dr.

This letter is to invite you to be part of a research project conducted by Drs. Jason Coe, Colleen Best and Joanne Hewson from the Ontario Veterinary College. As part of a larger research study looking at clients’ expectations of equine veterinarians, a series of veterinarian focus groups have been designed to explore equine practitioners’ perceptions of their clients’ expectations. These focus groups will provide an opportunity to discuss ideas, experiences and perceptions in a small group setting. We would greatly appreciate your involvement in this important aspect of the study. A series of focus groups involving clients will also be conducted.

More specifically, we are hoping you would be willing to commit one evening to a group discussion with five to ten other veterinarians about your perceptions of equine clients’ expectations of equine veterinarians. In order to try to accommodate your schedule, separate group discussions are being held at the Delta Hotel, Guelph, ON on March 13, 14, 20, and 21 beginning at 7:00 pm. Again, we are only asking you to commit to one of these evenings. The discussion will run for approximately two hours, followed by a complimentary three-course dinner. As a token of our appreciation and to help cover some of the costs you may have incurred to participate, each participant will also receive a $50 honorarium at the end of the evening.

This research project has been approved by the University of Guelph Research Ethics Board. Any information pertaining to you or comments you make during the group discussion will be kept strictly confidential. If you agree to participate in this study you have the option of withdrawing at any point without consequence.

We recognize that you, as a veterinarian, are very busy and that life in practice can instantaneously become very hectic. Therefore, we hope that by asking for a commitment of only one evening we can minimize the disruptions your participation may cause to your practice and/or life. We believe that this research will make an important contribution to our understanding of the equine veterinarian-client relationship and be a valuable contribution to our overall research project. We hope that you, as a private practitioner, will also be able to take something away from this experience.
Over the next two weeks, Dr. Best will be following up this letter with a phone call in order to arrange a convenient time to discuss the project in more detail and answer any questions you may have. If you have any immediate questions please feel free to contact Dr. Best at (226) 979-5750 or cbest@uoguelph.ca.

Thank you for taking the time to consider this request. We are looking forward to the prospect of working with you in the near future.

Sincerely,

Jason B Coe, DVM, PhD
Assistant Professor
Dept. of Population Medicine

Colleen Best, DVM, BScH
MSc Candidate
Dept. of Population Medicine

Joanne Hewson, DVM, PhD, DACVIM
Assistant Professor
Dept. of Clinical Studies
A.2 Veterinarian Follow-Up Recruitment Script

RECRUITMENT SCREENER (FOR VETERINARIANS)

Contacting the participant

Hello, May I please speak to [Dr. Surname]

Hello [Dr. Surname] how are you today?

Explaining the project

My name is Dr. Colleen Best, I'm calling from the University of Guelph.

You are being contacted in follow up to a letter sent out last week about a series of focus groups with equine practitioners, which is part of a research project being conducted by the Ontario Veterinary College on equine clients’ expectations of equine veterinarians. We are trying to gain information surrounding the equine veterinarian-client relationship. To this end, we’re putting together focus groups of veterinarians so that we can hear your thoughts.

Can I tell you a little more about this?

If no, thank them for their time.

If yes,

We’re particularly interested in learning about what veterinarians think that their clients expect from them and how veterinarians manage those expectations. It would be a small group discussion on this area that we are hoping you will participate in. It will only be one meeting and it will last approximately two hours.

As mentioned, the focus group would be a group session, involving you and a few other veterinarians lasting about two hours. We will be providing a three course meal and giving you a $50.00 honorarium for your participation.

I have shared a fair bit of information with you, what questions do you have?

Does this sound like it would work for you?

If no, thank them for their time.

If yes, continue with:
Screening Participants

If it would be alright I would like to ask you a few questions at this time. As you likely know, we are trying to get a number of people with different experiences for the focus groups and I just want to see how you how your participation might complement the existing group.

First, what percentage of your practice is equine?

What do you consider to be your primary population of patients – racetrack, pet horse, performance?

Are you currently employed? Are you an owner or an associate? How long have you been at the practice? Are there any other veterinarians working at your practice? How many?

Thank you so much for taking the time to answer these questions!

Continue with:

Scheduling the session.

There are 4 sessions scheduled, and you can choose the one that is most convenient for you. The options are [TBA] at [location TBA]. We will start at 7:00pm and end by 8:45, followed by a 3 course meal. If I do put your name down it is very important that we have everyone show up. Is there a date that you feel you can commit to?

It is also very important that we start on time. Will you have any problem getting there by 7:00 pm?

Again, we will be paying you $50.00 honorarium at the completion of the session. We will also be serving a three course meal. Do you have any food allergies or special requirements?

Okay. So the group will consist of seven to nine other veterinarians and the discussion topic will be your perspectives on clients’ expectations of equine veterinarians. I should tell you that we will be tape recording the session so that we don’t lose anything that was said but everything will be kept confidential. We won’t use your full name in anything or identify you in any way. Is this alright?

If no end call, thank them for their time.

Otherwise continue with:

Also, I want you to know that anything you do at the focus group session will be completely voluntary and you will be free to leave at any time for any reason.
I’d like to confirm your participation in this focus group with the details of time, place and location. Would you prefer this to be sent by mail, email, or fax?

There is a lot of material that we’re hoping to cover, so I think I should let you know that will be starting right on time at 7:00pm. So, if you arrive after we have started we may not be able to let you participate. If it were at all possible, it would be great if you could get there a few minutes early. There will be light refreshments available from 6:45pm until we start.

We’ll call you back a day or two before the group as a reminder. Is this the best phone number to use to reach you if we call on [ ]

Thank you so much. We look forward to chatting with you on [date].
A.3: Veterinarian Consent Form

ONTARIO VETERINARY COLLEGE
Department of Population Medicine

CONSENT TO PARTICIPATE IN RESEARCH
(REB# 12JA019)

Exploring Clients’ Expectations of the Equine Veterinarian
Veterinarian Focus Group Participant

You are asked to participate in a research study conducted by Drs. Jason Coe, Colleen Best and Joanne Hewson from the Ontario Veterinary College at the University of Guelph. The results of this study will contribute to Dr. Best’s Master’s thesis. If you have any questions or concerns, please feel free to contact Dr. Jason Coe at 519-824-4120 Ext. 54010 or Dr. Colleen Best at 226-979-5750.

PURPOSE OF THE STUDY

1. To explore various equine clients’ expectations of veterinary care and the interactions they have with their veterinarian
2. Investigate veterinarians’ perceptions of and challenges relating to veterinary clients’ needs and expectations
3. Identify and compare descriptively the differences between veterinarians’ and clients’ perceptions of clients’ needs and expectations of veterinary care

Information gathered during this study may be used for publication as well as to develop best practice guidelines. It may also be used in directing future research projects.

PROCEDURES

Focus group participants will participate in a group discussion with 5-10 other veterinarians to investigate their perspectives of clients’ expectations and perceptions of equine veterinarians. The discussion will take about two hours and will be audio recorded so that the researchers will have a record of the discussion to refer to in the future. Only members of the research team and a professional transcriptionist will have access to the audio recordings. Audio recordings will be kept for 7 years; they will not be used for any other purpose.
POTENTIAL RISKS

There is a potential risk of self-consciousness or embarrassment associated with participating in this form of discussion with your peers. Every effort will be made to ensure the confidentiality of participants in connection with this study; however, the focus group methodology cannot assure complete confidentiality. You will not have to discuss anything you would prefer not to.

POTENTIAL BENEFITS

There is potential for participants to benefit by sharing their feelings and experiencing camaraderie and fellowship with their colleagues. It is also foreseeable that participants may learn new strategies for handling situations from the experiences of other participants.

HONORARIUM FOR PARTICIPATION

Participants will receive a $50 honorarium and dinner for completing the session.

CONFIDENTIALITY

Every effort will be made to ensure confidentiality of any identifying information that is obtained in connection with this study; however, the focus group methodology cannot assure complete confidentiality. During the discussion group, you will be asked to share your first name only. When the audio recording is transcribed all participant identifiers will be removed in order to maintain confidentiality. The audio recording of the session will be stored in a secure location, an external hard drive kept in a locked cabinet, at the University of Guelph for seven years. A transcriber, bound by a confidentiality agreement, will be hired and have access to the audio recordings collected in conjunction with this study in order to produce verbatim transcripts of the interviews. Otherwise, access to the audio recordings will be limited to our research team at the University of Guelph.

In signing this consent form you agree to keep everything pertaining to this group strictly confidential, including the identity and comments of other members participating in the group. Any findings released from the outcome of this study will not be directly linked to any of the project participants. In signing this consent you are aware and agreeable to the use of non-identifying verbatim quotes in published materials and presentations.

PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don’t want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise that warrant doing so. You may not be removed from focus group audio recordings.

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. If you have questions regarding your rights as a research participant, contact:

Research Ethics Officer
University of Guelph
Reynolds Building, Room 203
Guelph, ON N1G 2W1

Telephone: (519) 824-4120, ext. 56606
E-mail: sauld@uoguelph.ca
Fax: (519) 821-5236

SIGNATURE OF RESEARCH PARTICIPANT

I have read the information provided for the study “Exploring Clients’ Expectations of the Equine Veterinarian” described herein. My questions have been answered to my satisfaction, I understand the discussion will be audio recorded and I agree to participate in this study with the assurance that my identity on written materials and audio recordings will remain confidential. However, I agree to the use of verbatim quotes in any published materials and presentations as long as my identity remains protected. I have been given a copy of this form.

Name of Participant (Please print)

Signature of Participant __________________________ Date ________________

SIGNATURE OF WITNESS

Name of Witness (Please print)

Signature of Witness __________________________ Date ________________
Introduction (5 minutes; begins 7:00; Mai Pham and Amy Gray)

- Hello and welcome
- Thank you for taking the time to join our discussion
- My name is Mai and this is Amy, we will be guiding this discussion today about client expectations of equine veterinarians.
  - Our role here is to ask questions, listen, keep the conversation moving, and get everyone involved.
- This discussion today is part of a larger research project being conducted at the Ontario Veterinary College/University of Guelph looking at the interaction between equine veterinarians and clients.
- You have all been invited here today because of your roles as practicing equine veterinarian and your experiences in interacting with clients. We want to hear:
  - your thoughts on clients’ expectations of the relationship between client and veterinarian, and also their expectations of veterinarians during appointments and interactions
  - some of the challenges faced by veterinarians while interacting with clients
- This information will be used:
  - to develop an understanding of the relationship and interactions taking place between veterinarians and their clients,
  - to develop a research paper looking at the needs and expectations of equine clients
- As you can see, there is a microphone set up to record our conversation
  - So while talking, please speak up so that we can catch all of your valuable comments.
  - But it is important for you to know that your names will not be attached to any comments in our report.
- In keeping with respect for confidentiality,
  - Please protect the identity of clients, veterinarians or veterinary clinics in this discussion by not using their names during our discussion
  - Also, please do not repeat what people have said here to others outside of this group.
- It’s important to hear from each of you because you each have different experiences and opinions.
  - Everyone participates in different ways. Some are quiet, others are more talkative. So, if you are talking a lot, I may interrupt you. And if you aren’t saying much, I may call on you. Please don’t feel bad about this – it’s just my way of making sure that we hear from all of you.
- And it’s okay to disagree with each other
  - There are no right or wrong answers and please remember that what works in one context may not work in another and so we expect to see different points of view. We just ask that everyone keep an open mind towards other people’s perspectives.
  - But we are going to ask that only one person speak at a time.
I’m also going to keep an eye on the time to make sure we get to cover all the important topics.

- We have about 1 hr and 45 minutes and there are a number of different topics that we’d like to discuss.

Please know that you have the option of withdrawing from this study at any time.

- If you need to leave for any reason, please do so quietly and just let Amy know.

If you’re not on call, we would ask that you please turn off your cell phones or pagers so that they do not interrupt our discussion.

Toward the end of the session we will be serving dinner and then handing out the honorariums.

In the meantime, please help yourself to the appetizers.

Any questions?

**Icebreaker** (5 minutes; begins 6:05; Mai)

- Let’s start by going around the table and introducing ourselves.
  
  - Tell us your name
  - Where you grew up
  - And about what you like to do when you’re not working

- So, I will start:
  
  - My name is Mai
  - I grew up in…

- (to go last) ….

- My name is Amy
  
  - I grew up in….

**Identifying Client Expectations**

**Group Defines Client** (5 minutes; begins 7:10; Mai)

Let’s begin by discussing who we view as the client. We’ll go around the circle and you can tell us how you define a client. Keep in mind that this is not necessarily the horse owner in all situations.

(Go through group and Amy will write down responses on flip chart)

**Individuals Write Down Client Expectations** (5 minutes; begins 7:15; Mai)

Now, let’s continue by looking at some of the things that you think your clients expect from you.

What I would like everyone to do is think about what type of things your clients expect of you that positively contribute to your client’s overall experience. Make a list of these expectations on the paper in front of you.

It may help to think about some of the things that you, as a veterinarian, do for your clients.

- What would be some of the things your clients would say they expect from you?
  
  - Clearly, sound veterinary care is important to every client; but also think about:
The things your clients would expect you to do or say?
What kinds of things they would like you to do or provide them with
The who, what, where, when and how of what they want

Please write down a list of the specific things your clients would be looking for.
  o You may include as many items in this list as you’d like.

*(give them 5 minutes to write things down)*

**Individuals Tell Client Expectations** (45 minutes; begins 7:20; Mai)
Now, let’s start by going around the room and having each person tell us one thing off their list. Then, after we’ve been around the room once, we’ll go back and fill in anything that has been left out
  o If someone has already mentioned something that you’ve written down, you don’t need to say it again – you can skip it and go on to the next item on your list.
As you are talking, XX will write down the things you say on the flip chart, so everyone can keep track of what’s been said.

*(Amy writes items on flip chart)*

**Prompt:**
  o How do you see ----?
  o How do you think a client evaluates this? What do they look for?
  o Can a client evaluate this?
  o What is important to a client about this thing?
  o What do you think they actually need from the veterinarian pertaining to this?
  o Do you think clients expect this at every interaction?
    o Is this important to every client, the majority, or just a few?
    o Does this expectation have the same importance in a routine visit? Problem visit? Emergency visit?

**Probes:**
  o How do these expectations vary depending on the people you are interacting with? Ex. owner, trainer, rider
  o How do you think these expectations change - as your relationship becomes more established with the client?

Stepping back and looking at these items, can you think of anything else that would be important to a client, anything that should be included but that we haven’t mentioned so far?
  o Are there any other clients’ expectations that you would want to add to this list?

*(ask them to pass back the expectations sheet)*

**Enjoyment and Challenges for Veterinarians** (35 minutes; begins 8:00, Mai)
Now that we have spent a considerable amount of time looking at your perceptions of clients’
needs and expectations of veterinary care, I would like to take some time to discuss some of the things you enjoy or find satisfying about working with clients. What are some of the things that you take satisfaction from when interacting or working with a client?

**Prompts:**
- Think about some of the clients you enjoy interacting with? *Frequency, character traits, attitude towards veterinary care, role in the horse’s life*
- *Is there something that makes certain clients easier to interact with?*

**Probes:**
- What is it that makes interacting with these clients so positive?
- What expectations do those clients have of you?

Now that we’ve talked about some of the things you enjoy, what are the challenges you face as veterinarians interacting with, communicating with and meeting the expectations of clients.

Ensure interacting and communicating issues are addressed
- Are there any challenges to interacting or communicating with clients?
  - Does your previous experience and relationship impact this?
  - Does their role in the horse’s life impact this?
- Are there things about certain clients that make them challenging to interact with?

**Optional:**

**Prompts:**
- *Think about some of the interactions you’ve had that haven’t gone the way you wanted them to*
- *A problem with a client, what were some of the main challenges*
- *Or a problem client, what are some of the challenges interacting with them?*
- *What do you think created the challenge?*
- *Were the expectations of the client reasonable?*

**If discussion needs recovering: how do you think it’s best to deal with that type of challenge (or client)?**

**Individuals Complete Demographics Sheet** *(5 minutes; begins 8:35)*
The third section contains questions about yourself.
- The information on this questionnaire is important to us because it will help us keep track of who took part in the discussion.

However, just like our discussion, all your answers will be confidential.

*(Amy collects the completed form)*

**Summary** *(5 minutes; begins 8:40 or as 1st course is served; Mai)*
We’ve now covered all the main topics for this discussion.

I’m going to summarize the key points that have been made and then I’ll ask you to let me know
if I’ve left anything out.
   o  To start, we talked about several things that clients need and expect – the items that
   we’ve written out on the flip chart
      o  These include things like YYY, YYY, etc
   o  Then we talked about the challenges of interacting with clients in private practice.
      o  From what you’ve said…
Would you say that this is a good summary of the key things that we have talked about today?

Is there anything else that you can think of, either needs and expectations of clients or challenges
that you face in meeting these?
   o  Have we overlooked anything?

(Amy collects the completed demographics sheet)
(Amy hands our honorariums and has participants sign sheet at the end of the evening)
A.5: Veterinarian Demographic Form

ONTARIO VETERINARY COLLEGE
Department of Population Medicine
(REB#12JA019)

Date: _______________

Veterinarian Demographic Information

Please complete the following demographic information form. All responses will be kept confidential and anonymous.

1. I am: Female_____ Male_____.
2. I am ______ years old.
3. I’ve been a veterinarian for _____ year(s).
4. I received my veterinary training from (which college) _____________________________________.
5. I’m currently working: Full Time _____; Part Time ______
6. The practice I work in is strictly equine: ___ yes; ___ no
   a. If no, what percentage of your work is equine: ______.
7. How many veterinarians work in your practice, including yourself: ___ full time; ___ part time
8. Have you had prior client communication training? ___ yes; ___ no
9. What industry sector comprises the majority of your clients/patients (choose only one)
   ___ Racetrack   ___ Pet horse   ___ Performance horse (English or Western)
   ___Other (please specify)
ONTARIO VETERINARY COLLEGE
Department of Population Medicine
(REB# 12JA019)

PARTICIPANTS NEEDED FOR RESEARCH INTO THE EQUINE VETERINARIAN-CLIENT RELATIONSHIP

We are looking for volunteers to take part in a study of clients’ expectations of equine veterinarians.

As a participant in this study, you would be asked to participate in a focus group where you would discuss your expectations of your equine veterinarian and aspects of the relationship between an equine veterinarian and client that you feel are important.

Anyone that interacts with equine veterinarians may be eligible to participate. Your participation would involve one session, which would be approximately two hours in duration.

In appreciation for your time and insight, you will receive $25.00 and appetizers during the focus group.

For more information about this study, or to volunteer for this study, please contact:
Colleen Best
at 226 979-5750 or Email: cbest@uoguelph.ca

This study has been reviewed by, and received ethics clearance through, the Office of Research Ethics, University of Guelph
A.7: Caretaker Focus Group Discussion Guide

Client Focus Group Discussion Guide

(turn on the recorders)

**Introduction** (5 minutes; begins 7:00)

- Hello and welcome
- Thank you for taking the time to join our discussion about veterinary clients’ experiences with veterinary care
- My name is Mai Pham and I will be the moderator for today’s discussion
- Assisting me is Colleen, who some of you may have already met
  - Colleen will be: manning the flip chart, taking notes during discussions to make sure we catch all the key points, and asking questions along the way.
- The discussion that we will have today is part of a larger project regarding clients’ needs and expectations of veterinarians
  - We want to hear:
    - What clients like yourselves need and expect from veterinarians
    - And how you feel your relationship with a veterinarian can impact your interactions with them and your ability to care for your horse
  - This information will be used
    - To form a questionnaire that veterinarians can use to get feedback from their clients
    - And to springboard future research about communication between clients and veterinarians.
- Everyone here has a working relationship with an equine veterinarian
  - So, we are particularly interested in your experiences with veterinarians
  - And, specifically, what things impact whether you have a good or bad experience or relationship with a veterinarian
- During our discussion, you can draw from either:
  - Experiences you’ve had with your own veterinarian
  - Or experiences with other veterinarians which you may have worked with in the past
- As you can see, there is a microphone set up to record our conversation
  - So, while we are talking, please speak up so that we can catch all of your valuable comments
  - But it is important for you to know that your names will not be attached to any comments in our report
    - So you are assured confidentiality
- In keeping with respect for confidentiality,
  - Please don’t use the name of the veterinarian or clinic in this discussion
  - Also, please do not repeat what people have said here to others outside of this group.
    - Because we want everyone to feel comfortable sharing their thoughts and feelings.
• My role here is to:
  o Ask questions,
  o Listen,
  o Keep the conversation moving,
  o And to get everyone involved
• It’s important to hear from each of you because you each have different experiences and opinions
  o Everyone participates in different ways. Some are quiet, others are more talkative. So, I’m going to be making sure that everyone has an equal opportunity to speak. If I have to cut you off at some point, it is for the sake of time. Please don’t feel that I’m not interested in what you have to say.
• And it’s okay to disagree with each other
  o Because there are no right or wrong answers
  o And, in fact, hearing everyone’s opinions will add value to our discussion
  ▪ But, I am going to ask that only one person speak at a time
• I’m also going to keep an eye on the time to make sure we get to cover all the important topics
  o We have 2 hours and there are a number of different topics that we’d like to discuss
• Please know that you have the option of withdrawing from this study at any time.
  o If you need to leave for any reason please do so quietly and just let Colleen know
• Also, please turn off your cell phones so that they do not interrupt our discussion.
• By the way, please help yourself to refreshments.
• At the end of the session, we will be handing out the honorariums

  ▪ Any questions?
  ▪ Ok, let’s begin

**Icebreaker** (5 minutes; begins 7:05)
  ▪ Let’s start by going around the table and introducing ourselves
    o Tell us your name
    o Tell us about what you like to do when you’re not working?
  ▪ So I will start:
    o My name is Mai
    o So, what I like to do is

**Experiences with Veterinarians**

**Individuals Discuss Good Experiences** (15 minutes; begins 7:10)
Now we are going to talk about some of the good experiences you’ve had with veterinarians.

To start, I’d like everyone to take a minute and think about a time when you had a very good experience with your veterinarian –
  ▪ A time when the vet handled your visit well.
What I mean by a good experience is not necessarily that the horse got better, but that you were very satisfied with your vet.

So think about a time when you were very satisfied with your vet:

- How were you involved in the interaction? Who else was there?
- How did the vet interact with the horse?
- Did you previous relationship or experience with that specific vet play a role? Other veterinarians that you’ve worked with?
- What was the main reason for the visit?

Now that you’ve got an image of a good experience with a veterinarian, think about some of the things that the veterinarian did that made things go well or that you really appreciated.

- What things did your veterinarian do or say to make things go well?
These things could be very obvious or very subtle.

(give them 15 seconds to think about this)

Ok, now let’s go around the room and see what you’ve thought of. Let’s focus on the things that the veterinarian did that allowed the interaction to go well.

Probes

- What did the vet say or do?
- How did the vet treat your horse?
- How did the vet make you feel?
- Did your previous experiences with the vet impact the interaction?

That’s great. Is there anything else that your veterinarians have done that you really like?

**Group Discusses Bad Experiences** (20 minutes; begins 7:25)

Ok, now let’s talk about experiences with vets that weren’t so good.

Think about things your vet has done that you didn’t like, and let’s talk about it:

- What could have gone differently to make that interaction better?

Prompts:

- Did or would that experience cause you to change veterinarians?

Probes:

- Was it a problem with what they did? Or how they did it?
- What did they do that turned you off, upset you or that you didn’t appreciate?
- Did it relate to the way the appointment was handled? The case? The horse? The people involved?
- Could they have:
  - Said something to make it better?
  - Not said something?
  - Done something different?
Identifying Needs and Expectations

**Individuals Write Down Needs/Expectations** (5 minutes; begins 7:45)
Now that we’ve talked about some of your experiences with veterinarians, we’re going to look more specifically at some of the things that you need and expect from your veterinarian,
- The specific things that positively contribute to your overall experience and relationship

To do this, think about some of the things that your veterinarian does for you.

Now imagine the ideal interaction and relationship.

Take some time to think about:
- What types of thing would you need or expect during an ideal interaction and relationship with the vet?
  - These may or may not be things we’ve already talked about
- So, for your ideal interaction and relationship, think about
  - What you would expect your vet to say or do
  - What kind of attitude your vet would have towards you and your horse
  - How you and the others that care for your horse would interact with the vet

*(Hand out paper to write on)*

Each of you has a pen and paper in front of you. Please use these to write down a list of the specific things you would be looking for.
- You can include as many items in this list as you’d like.

*(Give them 5 minutes to write things down)*

**Individuals Tell Needs/Expectations in Ideal Visit** (50 minutes; begins 7:50)
Now, let’s go around the room and each person can tell us what things they wrote down.

As you are talking, Colleen will write down the things you say on the flip chart, so everyone can keep track of what’s being said.
- If someone has already mentioned something you have written down, you don’t need to say it again – you can skip it.

*(Write items on flip chart)*

*Prompts:*
- What contributes to your need/desire for this thing?

*Probes:*
- Is this something that you need or expect from your veterinarian at each interaction or farm call?
  - With any one that interacts with the horse?
- Do your needs or expectations change based on certain factors
If so, how?
- What are the factors?
  - Would this be the same for routine visits? Emergency visits? Follow up phone calls?
  - Is this the same for a veterinarian you would use routinely? Or referral? Or for second opinions?
  - If you were to switch veterinarians, would it affect your expectations and needs?

Stepping back and looking at these items, can you think of anything else that would make a relationship or interaction with the vet ideal? Anything that should be included but that we haven’t mentioned so far?
  - Are there any other needs or expectations that you would want to add to this list?

(ask them to pass back the needs and expectations sheet)

Summary (5 minutes; begins 8:40)
We’ve now covered all the main topics for this discussion.
I’m going to summarize the key points that have been made and then I’ll ask you to let me know if I’ve left anything out.
  - To start, we talked about several things that would make an interaction ideal – the items that we’ve written out on the flip chart.
    - These included things like, YYY, YYY, etc
Would you say that this is a good summary of the key things we’ve talked about today?

Is there anything else that you can think of, either about the veterinarian or clinic in general, that is important to you or that affects your experience?
  - Have we overlooked anything?

Individuals Complete Demographics Sheet (3 minutes; begins 8:45)
(hand out form)
There is just one brief questionnaire that I’d like you to fill out before leaving.
  - It shouldn’t take more than a minute to fill out and then we’ll be done for the day.
The questionnaire contains questions about yourself.
  - The information on this questionnaire is important to us because it will help us keep track of who took part in the discussion.
  - However, just like our discussion, all your answers will be confidential.

Conclusions (1 minute)
Thank you all for coming out today and sharing your thoughts and experiences.
  - The discussion we’ve had is a valuable contribution to our study.
To thank you for your participation today, we would like to give each of you an honorarium.
  - Colleen is going to go around the table and hand these out to you.
  - Also, please help yourself to the appetizers that are left

(XX collects the completed demographics sheet around the table)
A.8: Caretaker Demographic Form

ONTARIO VETERINARY COLLEGE
Department of Population Medicine
(REB# 12JA019)

Date: _______________

Client Demographic Information

Please complete the following demographic information form. All responses will be kept confidential and anonymous.

1. I am: Female_____ Male_____.

10. I am ___18-25 ___26-34 ___35-44 ___45-54 ___55-64 ___65-74 ___75+ years old.

11. I have been involved with horses for _____ year(s).

12. I have been a ___ horse owner ___groom ___ barn staff ___ rider ___ trainer
   _____ other (please specify)

13. I am presently a ___ horse owner ___groom ___ barn staff ___ rider ___ trainer
   _____ other (please specify)

14. I have been involved in ____ racetrack ____ pet horse ____ performance horse (English or Western) _____ other (please specify)

15. I am currently predominantly involved in ____ racetrack ____ pet horse ____ performance horse (English or Western) _____ other (please specify)
16. On average, I interact with equine veterinarian(s): ___ 0 times/year ___1-2 times/year ___3-6 times/year ___7-10 times/year ___10-20 times/year ___20+ times/year

17. Does one or more than one veterinarian (or clinic) provide routine (ex. vaccines, dentistry, lameness) care for your horse(s) ____one veterinarian ____one clinic with multiple veterinarians ____multiple veterinarians/clinics

18. How far did you travel to attend this focus group? ____<30 minutes ____30-60 minutes ____>60 minutes
A.9: Thematic Map of Caretakers’ Needs and Expectations of Equine Veterinarians

Figure A. 1: Thematic Map of Caretakers’ Needs and Expectations of Equine Veterinarians
APPENDIX B

Survey of Equine Client Satisfaction with Equine Veterinarians

B.1: Client Recruitment Notice
B.2: Client Consent Form
B.3: Equine client satisfaction with most recent veterinary visit questionnaire
B.4: Additional Logistic Regression for Respondents with Missing Satisfaction Items
B.1: Client Recruitment Notice

The Ontario Veterinary College is researching equine veterinary care - Are you responsible for arranging veterinary care for horses?

If so, then please complete this survey about your satisfaction with your most recent experience with a horse vet for a chance to win a $500 Visa gift card. The survey will only take 10 minutes and will provide the veterinary community with important information on the best way to meet the veterinary needs of clients and horses.

www.horsevetsurvey.ca

Please contact Dr. Colleen Best with questions or concerns, cbest@uoguelph.ca.

*Odds of winning 1/550*
B.2: Client Consent Form

ONTARIO VETERINARY COLLEGE
Department of Population Medicine

CONSENT TO PARTICIPATE IN RESEARCH
(REB# 13MY013)

Survey of Client Satisfaction with Equine Veterinarians

Client Participant

You are asked to participate in a research study conducted by Drs Jason Coe, Colleen Best and Joanne Hewson from the Ontario Veterinary College at the University of Guelph. The results of this study will contribute to Dr Best’s PhD Thesis. If you have any questions or concerns, please feel free to contact Jason Coe at 519-824-4120 Ext. 54010 or Colleen Best at 226-979-5750.

PURPOSE OF THE STUDY

Overall, this study seeks to develop an assessment tool that evaluates client’s satisfaction with equine veterinarians. Specifically, this study will:

- Develop and implement a quantitative assessment tool to be used in determining the factors that contribute to equine client satisfaction
- Quantify the level of clients’ satisfaction with equine practitioners in Ontario

Information gathered during this study may be used for publication.

PROCEDURES

Participation in this study involves completing an internet-based survey regarding your interactions with your equine veterinarian. We estimate that it will take about 10 minutes. You may stop the survey at any time or skip any questions that you prefer not to answer without penalty.

CONFIDENTIALITY

Your participation in this study is completely voluntary. Your name will not appear on the survey, and there will be no way to trace your survey responses back to you or your computer. Your veterinarian will not be provided with any information about your individual responses; he/she will only be provided with an overall summary of their clients. You may chose to enter your email address to be entered in a draw for a gift certificate; your email address will not be linked to your survey responses and will be destroyed after the draw is completed.
Your data will be kept for seven years, accessible only by the project researchers, and will be kept in a password-protected database.

PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. Simply email the researcher with your survey code, and your data will be withdrawn. You may also refuse to answer any questions you don’t want to answer and still remain in the study.

INCENTIVE FOR PARTICIPATION

Participants will have the option of providing their email address to be entered in a draw for a $500 Visa gift card. The odds of winning are one in five hundred and fifty.

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. If you have questions regarding your rights as a research participant, contact:

Director, Research Ethics
University of Guelph
University Centre, Room 437
Guelph, ON  N1G 2W1

Telephone: (519) 824-4120, ext. 56606
E-mail: sauld@uoguelph.ca
Fax: (519) 821-5236
B.3: Equine client satisfaction with most recent veterinary visit questionnaire

Instructions:

Based on your most recent visit with a horse veterinarian, please indicate your satisfaction with 1 = Completely Dissatisfied 100 = Completely Satisfied

1. The ease in arranging the veterinarian's visit to your farm
2. The veterinarian's punctuality
3. The veterinarian's trust in what you told them about the horse(s)
4. The veterinarians' knowledge of the history of the horse(s)
5. The veterinarian's understanding of your goals with the horse(s)
6. The veterinarians understanding of how the job of the horse(s) impacts their health
7. The veterinarian's horse sense
8. The veterinarian's appreciation of what the horse(s) means to you
9. The veterinarian's medical expertise
10. The amount of information the veterinarian gave you
11. The options presented by the veterinarian
12. The veterinarian's consideration of your budget
13. How the veterinarian communicated with you about cost
**B.4: Additional Logistic Regression for Respondents with Missing Satisfaction Items**

A second model was run using only OSS scores of respondents with missing data (NMiss>0, n=416); the outcome variable was OSS and the same independent variables were evaluated for inclusion in the model as in the first model. In that model the variables that were significant were frequency of veterinarian use, number of horses owned or leased, client-horse bond and client age (P<0.01), (Table 6). There were no abnormal patterns or apparent data entry errors when the leverage and Pearson residual plots were examined.

**Table B4.1: Logistic Regression of Respondents with Missing Satisfaction Items (n=423)**

| Variable                     | Estimate  | 95% CL for Estimate | Pr>|t| | Odds Ratio |
|------------------------------|-----------|----------------------|-----|------------|
| Intercept                    | -3.33     | -5.00, -1.65         | 0.0001 |           |
| Age                          | 0.019     | 0.0026, 0.035        | <0.23 | 1.019      |
| Bond                         | 0.024     | 0.0079, 0.040        | 0.0035 | 1.024      |
| Frequency of Veterinary Use  |           |                      |      |            |
| NB*                          | 0.48      | -0.196, 1.150        | 0.164 | 1.611 (NB-S) |
| S                            | 0         |                      |      |            |
| R                            | 1.060     | 0.578, 1.542         | <0.0001 | 2.886 (R-S) |
| Number of Horses Owned or Leased | -0.080   | -0.136, -0.0234     | 0.0053 | 0.923      |

*NB= never before; R= regularly; S=sometimes*

The variables that predicted satisfaction in respondents with missing ISCS items were largely the same as the variables that predicted satisfaction in respondents with no missing ISCS items. The similarities show the contributors to equine client satisfaction are relatively robust. The primary difference between the model of respondents with complete ISCS items and the model of respondents with incomplete ISCS items is that in the model of respondents with incomplete ISCS items, the variable number of horses owned or leased is significant, and predicts a decrease in satisfaction. One possible explanation for this is that clients that own multiple horses may have slightly different expectations of equine veterinarians. Interestingly, the impact of frequency of veterinarian use changed direction slightly; with client experiences with veterinarians that were used “sometimes” being those experiences clients were least satisfied with. Lastly, the effect of perceived veterinarian age and days since visit are not apparent in the
model of respondents with missing ISCS items. Both of these variables had a significant yet small impact on satisfaction in the first model, their insignificance in the model of respondents with missing ISCS items suggests that further investigation is necessary to determine whether this is a true difference.
APPENDIX C

Equine Referring Veterinarians’ Expectations of Equine Veterinary Specialists and Referral Centers

C.1: Email Recruitment Notice
C.2: Email Follow Up Script
C.3: On-Site Recruitment Notice
C.4: Referring Veterinarian Consent Form
C.5: Referring Veterinarian Discussion Guide
C.6: Referring Veterinarian Demographic Questionnaire
C.7: Thematic Map of Equine Referring Veterinarians’ Expectations of Equine Specialists and Referral Centers
Participants sought for a focus group study at the 58th AAEP Convention in Anaheim being conducted by Drs. Jason Coe and Colleen Best of the Ontario Veterinary College.

You are being asked to participate in a focus group where you would discuss your expectations, thoughts and experiences with referring equine patients. In appreciation for your time and insight, you will receive $100.00 and appetizers during the focus group.

For more information about this study, or to volunteer, please contact:
Dr. Colleen Best at 226 979-5750 or
Email: cbest@uoguelph.ca

(REB#12SE027)
C.2: Email Follow Up Script

EMAIL FOLLOW UP FOR VETERINARIANS

Responding to the participant’s inquiry
Hello Dr. XXX,

Thank you for your interest in the study.

We’re putting together focus groups of referring veterinarians because we’re interested in learning about what veterinarians expect from specialists and referral care. It would be discussion on topics like this that you would be participating in. It will only be one meeting and it will last about two hours during a time when there are not lectures going on. Light appetizers will be served and we will also give you a $100.00 honorarium at the end of the session, as a token of our appreciation. They will be held at the Anaheim Convention Center.

As you would imagine, we are trying to get a number of people with different experiences for the focus groups. If you are interested in participating, please send responses to the following questions, so I can see how your participation might complement the existing group.

First, do you work a referral care centre or are you a specialist?

Secondly, do you have a referral care centre (private or teaching hospital) within 4 hours of your practice?

On average, in a year how often do you refer to a specialist or referral care centre?

Where are you from (city and state/province)?

Thank you very much for your interest in this study!

Kind regards,

Colleen Best, DVM

If they respond and their participation is questionable or not required – Thank them for their time.

Otherwise respond with:

Scheduling the session.

Thank you very much for getting back to me.
We are hosting the following sessions:
- Saturday 330-530
- Sunday 1130-130
- Sunday 430-630
- Monday 700-900
- Monday 1130-130
- Tuesday 1130-130
- Wednesday 700-900

Could you please let me know which one of those suits you best. It is very important that we have everyone show up that indicates they plan on attending, so please plan appropriately.

I’d like to let you know a little bit about how the focus group runs. The group will consist of eight to 10 other referring veterinarians and the discussion topic will be your expectations and perceptions of specialists and referral care centres. I should tell you that we will be tape recording the session so that we don’t lose anything that was said. The researchers won’t use your full name in anything or identify you in any way. Is this OK? It is important to note that while participants are asked not to discuss what has happened in the focus groups with anyone, this is outside the control of the researchers.

The research team is primarily composed of individuals that have no connection to the Ontario Veterinary College Veterinary Teaching Hospital (OVC VTH). However, one of the members of the research team is a clinician at the OVC VTH, however, they will not have access to any identifying information regarding participants.

Again, we will be paying you a $100 honorarium at the completion of the session. We will also be serving light appetizers. Do you have any food allergies or special requirements?

We’ll call you a day or two before the group as a reminder. What is the best phone number to use to reach you if we call a few days before the focus group?

Thanks very much,

Colleen

If asked – will anything I say get back to my colleagues or referral centres I work with?
   Answer: No, everything you say will be kept confidential.
C.3: On-Site Recruitment Notice

Seeking Your Thoughts on the Equine Referral Process

We are seeking first-opinion veterinarians to participate in one 2 hour focus group.

You will be asked to discuss your expectations, thoughts and experiences with referring equine patients for secondary and tertiary care.

In appreciation for your time and valuable insight, you will receive a $100 honorarium.

Focus Group Schedule:
Monday, Dec 3, 7:00am-9:00am
Tuesday, Dec 4, 7:00am-9:00am

Please contact Dr. Colleen Best to register or if you have any questions:
(226) 979-5750
cbest@uoguelph.ca

REB123E027
ONTARIO VETERINARY COLLEGE
Department of Population Medicine

CONSENT TO PARTICIPATE IN RESEARCH
(REB# 12SE037)

Exploring Referring Veterinarians’ Expectations of Equine Specialists and Equine Referral Care Centers

Veterinarian Focus Group Participant

You are asked to participate in a research study conducted by Drs. Jason Coe, Colleen Best, Joanne Hewson and Michael Meehan from the Ontario Veterinary College at the University of Guelph. The results of this study will contribute to Dr. Best’s PhD thesis. If you have any questions or concerns, please feel free to contact Dr. Jason Coe at 519-824-4120 Ext. 54010 or Dr. Colleen Best at 226-979-5750.

PURPOSE OF THE STUDY

1. Explore referring veterinarians’ expectations of veterinary specialists and equine referral care centers.
2. Investigate factors that contribute to the decision of referring veterinarians to refer a case to a private referral center or veterinary teaching hospital.
3. Identify the areas in which the expectations of referring veterinarians are not being met, such that changes can be instituted and education provided to specialists and referral care centres regarding these shortcomings.

Information gathered during this study may be used for publication as well as to develop best practice guidelines. It may also be used in directing future research projects. The Ontario Veterinary College has a Veterinary Teaching Hospital that has an equine referral centre. Drs Coe, Meehan and Best have no involvement with the Veterinary Teaching Hospital. Dr Hewson is a clinician at the Ontario Veterinary College Veterinary Teaching Hospital, she will not have access to any identifying information regarding participants.

PROCEDURES

Focus group participants will participate in a group discussion with 5-10 other referring veterinarians to investigate their expectations of specialists and referral care centers. The discussion will take about two
hours and will be audio recorded so that the researchers will have a record of the discussion to refer to in the future. Only members of the research team and a professional transcriptionist will have access to the audio recordings. Audio recordings will be kept for 7 years; they will not be used for any other purpose.

POTENTIAL RISKS

There is a potential risk of self-consciousness or embarrassment associated with participating in this form of discussion with your peers. Every effort will be made to ensure the confidentiality of participants in connection with this study; however, the focus group methodology cannot assure complete confidentiality. Participants are asked not to discuss anything that is said during the focus group with anyone; however, this cannot be controlled by the researchers. This component of confidentiality surrounding the focus groups is the responsibility of the participants. You will not have to discuss anything you would prefer not to.

POTENTIAL BENEFITS

There is potential for participants to benefit by sharing their feelings and experiencing camaraderie and fellowship with their colleagues. It is also foreseeable that participants may learn new strategies for handling situations from the experiences of other participants.

HONORARIUM FOR PARTICIPATION

Participants will receive a $100 honorarium and appetizers.

CONFIDENTIALITY

Every effort will be made to ensure confidentiality of any identifying information that is obtained in connection with this study; however, the focus group methodology cannot assure complete confidentiality. During the discussion group, you will be asked to share your first name only. When the audio recording is transcribed all participant identifiers will be removed in order to maintain confidentiality. The audio recording of the session will be stored in a secure location, an external hard drive kept in a locked cabinet, at the University of Guelph for seven years. A transcriber, bound by a confidentiality agreement, will be hired and have access to the audio recordings collected in conjunction with this study in order to produce verbatim transcripts of the interviews. Otherwise, access to the audio recordings will be limited to our research team at the University of Guelph. Any findings released from the outcome of this study will not be directly linked to any of the project participants.

Please keep everything pertaining to this group strictly confidential, including the identity and comments of other members participating in the group. In signing this consent you are aware and agreeable to the use of non-identifying verbatim quotes in published materials and presentations.

PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don’t want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise that warrant doing so. You may not be removed from focus group audio recordings.
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. If you have questions regarding your rights as a research participant, contact:

Research Ethics Officer
University of Guelph
Reynolds Building, Room 203
Guelph, ON N1G 2W1
Telephone: (519) 824-4120, ext. 56606
E-mail: sauld@uoguelph.ca
Fax: (519) 821-5236

SIGNATURE OF RESEARCH PARTICIPANT

I have read the information provided for the study “Exploring Referring Veterinarians’ Expectations of Equine Specialists and Equine Referral Care Centers” described herein. My questions have been answered to my satisfaction, I understand the discussion will be audio recorded and I agree to participate in this study with the assurance that my identity on written materials and audio recordings will remain confidential. However, I agree to the use of verbatim quotes in any published materials and presentations as long as my identity remains protected. I have been given a copy of this form.

____________________________
Name of Participant (Please print)

____________________________
Signature of Participant

__________________________ Date

SIGNATURE OF WITNESS

____________________________
Name of Witness (Please print)

____________________________
Signature of Witness

__________________________ Date
C.5: Referring Veterinarian Discussion Guide

Veterinarian Focus Group – Discussion Guide

*(turn on the recorder)*

**Introduction** (5 minutes; begins m:mm; PP and YY)

- Welcome group
- My name is PP and this is YY, we will be guiding today’s group.
  - Our role is to ask questions, keep the conversation moving, to remain neutral and encourage the free sharing of your thoughts and ideas.
- Research project at OVC
- You are here because of your roles as referring equine veterinarians. We want to hear:
  - your thoughts and experiences with referring equine cases, your expectations of specialists and referral care centers, as well as challenges you face when dealing with them.
- Why
  - to develop an understanding of the relationship and interactions taking place between veterinarians and specialists,
  - to develop a research paper looking at the needs and expectations of referring vets
- Microphone
  - Speak up
  - One at a time
- Identity protection – you won’t be named or have your name assoc w/ what you say
- In keeping with that last point,
  - Please protect the identity of clients, veterinarians or veterinary clinics in this discussion by not using their names during our discussion – but know that if you do we will simply remove them in the transcripts
  - It is everyone’s responsibility to protect the confidentiality of all participants by not repeating what people have said here to others outside this group. This will help to ensure that everyone feels comfortable to share their thoughts and experiences openly and freely.
  - The researchers can assure you that in the transcripts, analysis and resulting literature, you will not be identified in any way
  - Hear from everyone-
    - some quiet, some not,
    - interrupting and calling on
  - Disagreements and right and wrong
- On time
- Please know that you have the option of withdrawing from this study at any time.
- If you need to leave for any reason, please do so quietly and just let ZZ know.
- Phones and pagers
- Food
- We will be handing out the honorariums at the end of the session
- Does anyone have any questions before we continue?
**Icebreaker** (5 minutes; begins +5min; PP)
- Let’s start by going around the table and introducing ourselves
  - Tell us your name
  - Where you grew up
  - And about what you like to do when you’re not working
- So, I will start:
  - My name is Colleen
  - I grew up in…
- (to go last) …. 
- My name is Jeremy 
  - I grew up in….

**Key Questions**
Alright, to start off, please
- Take a minute and think about a previous positive experience when you referred a case.
  There’s a piece of paper in front of you that you can use to keep track of your thoughts if you like. I'll give everyone a minute, then you can turn to your neighbor and share your experiences. Then we'll discuss them as a group.
  *(wait 2 minutes)*
  Alright, let’s start sharing your positive experiences. *(15 minutes)*
  Probes
  - What made it a positive experience
  - What specifically contributed to this being a positive experience
  - How did the specialist contribute?
  - How did the staff at the referral center contribute?
  - How did the referral center contribute?
*(go around table and let each person tell their story)*
Anything else you’d like to bring up?
- Now, let’s spend a minute thinking about a less ideal experience.
  *(wait 2 minutes)*
  Tell me about those less than ideal experiences *(15 minutes)*
  Probes
  - What contributed to it being a less positive experience
  - How did the specialist contribute?
  - How did the staff at the referral center contribute?
  - How did the referral center contribute?

Now, Please take a few minutes and write **what things are important to you when referring a horse/case** down on the sheet in front of you;

**Wait 3 min**
- Now we’ll go around and everyone can share one thing off their lists, if someone else has said something on your list, feel free to contribute at the time then bring up another one
  **Prompts:**
  - What is important to you when you refer a case?
Probes:

- How does the client play into what is important for you when you refer?
- What about in relation to an emergency versus...?
- What are your expectations of the specialist?
  - What about communications?
  - What are the differences for cases they are consulting on versus a referred case?
- Tell me about the differences in your expectations when referring to a specialist at a private referral clinic versus a veterinary teaching hospital? What are the similarities?
- When you refer a case to a referral care centre, what are your expectations?
  - What about a scheduled appointment versus an emergency?
  - What about the staff?

- Tell me about of the barriers and challenges you encounter when referring a case
  - Prompts:
    - What are things that frustrate you when referring?
    - What are things that have led you not to refer to that referral center or specialist again?
  - Probes:
    - What makes __________ a challenge or barrier? Tell me more
    - What are your concerns when referring a case?

Cool Down and Summary (leave 15 minutes for this depending on how much it has been discussed before)

- We have talked a lot about what is important and your expectations when referring a client and patient. And about some of the barriers and challenges that exist.
- Summary
- Do you feel that fairly summarizes our discussion tonight? Have I missed anything or incorrectly captured anything?
- Thanks for sharing your thoughts on those areas.
  - Just before we begin wrapping up – I am curious, from your perspective:
    - What role does communication have in the referral process?
    - What role does money have in the referral process?

Provide summary of focus group discussion.

- Do you feel that fairly summarizes our discussion tonight? Have I missed anything or incorrectly captured anything?
- Final question - is there anything regarding the dynamics between specialists and/or referral care centres and you as a referring veterinarian that you think is important that we haven’t covered?

Thank you very much for your time. – demographics and honorariums (*sign*)
C.6: Referring Veterinarian Demographic Questionnaire

ONTARIO VETERINARY COLLEGE
Department of Population Medicine
(REB#12SE037)

Date: ________________

Veterinarian Demographic Information

Please complete the following demographic information form. All responses will be kept confidential and anonymous.

1. I am: Female_____ Male_____.
2. I am ______ years old.
3. I’ve been a veterinarian for _____ year(s).
4. I received my veterinary training from (college) ____________________________.
5. I’m currently working: Full Time _____; Part Time _____________.
6. How much of your work is equine: _____ %
7. How many veterinarians work in your practice, including yourself: ___ full time; ___ part time
8. What industry sector comprises the majority of your clients/patients (choose only one)
   _____ Racetrack _____ Pet horse _____ Performance horse (English or Western)
   _____Other (please specify)
9. Do you refer cases to a veterinary teaching hospital? ___yes ___no; if yes:
   a. How long would it take an average client to drive there? ____ hours
   b. How many cases do you refer there a year?
      ____ 0 cases ____1-5 cases ____5-10 cases ____10-25 cases ____25-50 cases
      ____50-75 cases ____75+ cases
10. Do you refer cases to private referral care center(s)? ___yes ___no; if yes:
    a. How many clinics/hospitals? ____1 ____2 ____3 ____4+
b. How long would it take an average client to drive to the closest one? ____ hours

c. In total, how many cases do you refer to private referral care centers a year?
   ____ 0 cases ____ 1-5 cases ____ 5-10 cases ____ 10-25 cases ____ 25-50 cases
   ____ 50-75 cases ____ 75+ cases

11. On average, how many cases do you consult with an equine specialist regarding in a
   year? ____ 1-5 ____ 6-12 ____ 13-24 ____ 24-48 ____ 49-74 ____ 75+
C.7: Thematic Map of Equine Referring Veterinarians’ Expectations of Equine Specialists and Referral Centers

Figure C.1: Thematic Map of Equine Referring Veterinarians’ Expectations of Equine Specialists and Referral Centers

rDVM = referring veterinarian
Survey of Equine Referring Veterinarian Satisfaction with Specialists and Referral Care

D.1: Referring Veterinarian Recruitment Notice
D.2: Specialist Recruitment Notice
D.3: Consent Form
D.4: Referring Veterinarian Satisfaction with Most Recent Referral Experience Items
D.5: Decision-Making Factors that Influence Where a Referring Veterinarian Refers a Case
D.6: Barriers Referring Veterinarians Face When Referring a Case
D.1: Referring Veterinarian Recruitment Notice

Have your say about referral care

What have your experiences with referral care been like – Good? Bad? Everything in between?

We are interested in hearing about all of them. Researchers at the Ontario Veterinary College are conducting a research study into the factors that contribute to the outcome of referring patients for rDVMs.

We are asking that you contribute your valuable thoughts and experiences to this project by completing an online survey. The survey takes approximately 10 minutes and your responses will be entirely confidential.

In appreciation for your time, you will receive the results of this study as soon as they are available and be entered in a draw for $400*.

www.horsevetsurvey.com

Please contact Dr. Colleen Best at cbest@uoguelph.ca or 226-979-5750 if you are interested in participating or have questions about the project.

This research project has been cleared by the University of Guelph Ethics Board, REB 13NV45.

*Odds of winning 1/250
Have your say about referral care

Have you ever wondered what factors referring veterinarians consider essential to a successful outcome when they refer their equine patients for specialty care? Are these the same factors you strive to deliver?

Researchers at the Ontario Veterinary College are conducting a research study into the factors that contribute to the outcome of referral care for rDVMs.

We are asking that you contribute your valuable thoughts and experiences to this project by completing an online survey. The survey takes approximately 5 minutes and your responses will be entirely confidential.

In appreciation for your time, you will receive the results of this study as soon as they are available and be entered in a draw for $400.

http://www.cliniciansurvey.com

Please contact Dr. Colleen Best at cbest@uoguelph.ca or 226-979-5750 if you are interested in participating or have questions about the project.

This research project has been cleared by the University of Guelph Ethics Board, REB 13NV45.

*Odds of winning 1/250
Ontario Veterinary College
Department of Population Medicine

Consent to Participate in Research
(REB# 12NV045)

Survey of Referring Veterinarian Satisfaction with Referral Hospitals

You are asked to participate in a research study conducted by Drs Jason Coe, Colleen Best and Joanne Hewson from the Ontario Veterinary College at the University of Guelph. The results of this study will contribute to Dr Best’s PhD Thesis. If you have any questions or concerns, please feel free to contact Jason Coe at 519-824-4120 Ext. 54010 or Colleen Best at 226-979-5750.

Purpose of the Study

Overall, this study seeks to develop an assessment tool that evaluates referring veterinarians’ satisfaction with referral hospitals. Specifically, this study will:

- Develop and implement a quantitative assessment tool to be used in determining the factors that contribute to referring veterinarian satisfaction
- Quantify the level of referring veterinarians’ satisfaction with referral hospitals

Information gathered during this study may be used for publication.

Procedures

Participation in this study involves completing an internet-based survey regarding your experiences with referral care. We estimate that it will take about 10 minutes. You may stop the survey at any time or skip any questions that you prefer not to answer without penalty.

Confidentiality

Your participation in this study is completely voluntary. Your name will not appear on the survey, and there will be no way to trace your survey responses back to you or your computer. Your data will be kept for seven years, accessible only by the project researchers, and will be kept in a password-protected database. Please note that confidentiality cannot be guaranteed while data are in transit over the internet.

Participation and Withdrawal
You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. Simply email the researcher with your survey code, and your data will be withdrawn. You may also refuse to answer any questions you don’t want to answer and still remain in the study.

**INCENTIVE FOR PARTICIPATION**

You will have the option of providing your email address to be entered in a draw for $400 with 1/250 odds of winning. You will also be provided the results of this study as soon as it is available, if desired.

**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. If you have questions regarding your rights as a research participant, contact:

Director, Research Ethics  
University of Guelph  
University Centre, Room 437  
Guelph, ON N1G 2W1  
Telephone: (519) 824-4120, ext. 56606  
E-mail: sauld@uoguelph.ca  
Fax: (519) 821-5236
D.4: Referring Veterinarian Satisfaction with Most Recent Referral Experience Items

Instructions:

Please answer the following questions based on your most recent referral experience.

If a question asks about something that did not happen, please provide your level of satisfaction with the fact that it did not happen.

For instance, if a question asks about a cost estimate, and you did not receive a cost estimate, please indicate your satisfaction about not receiving a cost estimate.

Please indicate your level of satisfaction of the following with regards to your most recent referral experience.

0 - Completely Dissatisfied
100 - Completely Satisfied
*Response format was a visual analogue scale

<p>| The quality of care provided |
| The ease of arranging for the horse to receive care |
| The expertise of the clinician(s) |
| The collegiality between the clinician and yourself |
| The way the clinician supported your efforts to provide the patient with the best possible care |
| The relationship between the clinician and yourself |
| The respect shown to you by the clinician |
| The use of technology for communication (text, email, fax) |
| How the referral experience impacted your relationship with your client |
| Your ability to get a hold of the clinician in charge of the case |
| How the clinician followed through with the plan for care you requested |
| The primary/routine care was left to you |
| The communication you had with the clinician before they saw the horse |
| The treatment options provided to the client by the clinician |
| The clinician's respect for your knowledge and expertise |
| The adaptability of the clinician, given the client and horse's situation |
| The accuracy of the cost estimate provided |
| The communication between the clinician and yourself about the horse's aftercare |
| The thoroughness of the discharge statement you received |
| The way the clinician involved you in the horse's care |
| The way the clinician kept you up to date with what was going on |
| The amount of new information you learned from the clinician |
| The cost of care provided |
| The length of time it took to receive the discharge |
| The amount of medication sold to the client for the aftercare of the horse |</p>
<table>
<thead>
<tr>
<th>The components of your work up that were repeated by the hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td>The clinician's ability to provide cost effective care</td>
</tr>
<tr>
<td>The way the clinician communicated the costs of care to you</td>
</tr>
<tr>
<td>The competition the referral hospital poses to your practice</td>
</tr>
</tbody>
</table>
### D.5: Decision-Making Factors that Influence Where a Referring Veterinarian Refers a Case

Instructions:
Please indicate how the following criteria factor into your decision of where to refer a case.

0 - Does not factor into decision at all
100 - Factors heavily into decision
*Response format was a visual analogue scale

<table>
<thead>
<tr>
<th>Quality of care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expertise of clinician</td>
</tr>
<tr>
<td>Ability of the referral hospital to provide comprehensive care</td>
</tr>
<tr>
<td>The referring veterinarian’s belief that the client will have a positive experience</td>
</tr>
<tr>
<td>Previous experience referring cases to the clinician</td>
</tr>
<tr>
<td>Ease of communication with the clinician</td>
</tr>
<tr>
<td>Likelihood the clinician will do what the horse was sent to have done</td>
</tr>
<tr>
<td>Quality of communication and updates from the clinician</td>
</tr>
<tr>
<td>Collegiality between the clinician and the referring veterinarian</td>
</tr>
<tr>
<td>The referring veterinarian’s confidence that the client will be returned to their practice</td>
</tr>
<tr>
<td>Ease of arranging referral</td>
</tr>
<tr>
<td>The referring veterinarian’s confidence that the primary/routine care will be left to them</td>
</tr>
<tr>
<td>The availability of the clinician for consultation regarding non-referred patients</td>
</tr>
<tr>
<td>The clinician includes the referring veterinarian as a team member in the patient’s care</td>
</tr>
<tr>
<td>Accurate estimate for cost of care</td>
</tr>
<tr>
<td>Likelihood the clinician will include the referring veterinarian in decision-making regarding patient care</td>
</tr>
<tr>
<td>The referral hospital does not compete with the referring veterinarian’s practice</td>
</tr>
<tr>
<td>Openness of the referral hospital to have the referring veterinarian present to observe/learn</td>
</tr>
<tr>
<td>The amount of knowledge the referring veterinarian gains from working with the clinician</td>
</tr>
<tr>
<td>Likelihood that the clinician will repeat the referring veterinarian’s work up</td>
</tr>
<tr>
<td>The referral hospital is unlikely to provide medication for aftercare that the referring veterinarian could</td>
</tr>
</tbody>
</table>
D.6: Barriers Referring Veterinarians Face When Referring a Case

Instructions:
Please select and rank the top three barriers that you find most challenging with respect to your experiences with referral care

<table>
<thead>
<tr>
<th>Barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>High cost of referral care</td>
</tr>
<tr>
<td>Lack of referring veterinarian involvement with case management</td>
</tr>
<tr>
<td>Poor communication between clinician and referring veterinarian</td>
</tr>
<tr>
<td>Distance to referral hospital</td>
</tr>
<tr>
<td>Clinician does not provide the care for which the horse was referred</td>
</tr>
<tr>
<td>Referring veterinarian loses client following referral</td>
</tr>
<tr>
<td>Poor service provided to the client by the referral hospital</td>
</tr>
<tr>
<td>Lack of collegiality between the clinician and the referring veterinarian</td>
</tr>
<tr>
<td>Poor availability of referral hospital to provide referral care</td>
</tr>
<tr>
<td>Poor quality of care</td>
</tr>
<tr>
<td>Low cost of referral care</td>
</tr>
</tbody>
</table>