

Keeping horses barefoot: a shared accomplishment

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By

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This thesis is based on research carried out in the Department of Epidemiology and Population Health, Institute of Infection and Global Health, University of Liverpool.

Except where indicated, this thesis is my own unaided work.

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Abstract

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Introduction

My research aimed to improve understanding of equine barefoot care and to show how horse owners work with others, particularly barefoot trimmers, to deliver this type of care.

Methods

Data were collected from trimmers and horse owners using in-depth interviews (face-to-face and telephone) and online questionnaires. Data collected via the trimmer interviews (n=6) were analysed using a grounded theory approach to facilitate the development of a conceptual model. Trimmer questionnaire data (n=58) and horse owner data (interviews: n=5; questionnaire responses: n=681) were used to support the conceptual model.

Results

The overarching conceptual model illustrated the relationships between essential elements of becoming and being a trimmer, regardless of trimmer barefoot beliefs. It comprised three elements: (i) a foot-centred approach, (ii) the provision of foot-centred care, and (iii) building and safeguarding reputation.

Keeping a horse barefoot was shown to be a holistic, foot-centred approach to care. When making changes to the horse's care or exercise, the effect of such changes on the horse's feet took priority. The success of the approach was assessed by the extent to which the horse was comfortable barefoot (the foot-functionality goal).

Foot-centred care was delivered using the balance management cycle (Assess, Plan, Do). Factors that affected the horse's feet were assessed and findings from the assessment were used to develop a Plan. The Plan set out adjustments to care and exercise that were needed to help reach foot-functionality goals. The Do phase involved implementing the Plan. After a period that varied depending on individual circumstances, the cycle re-commenced. The success of the process was a shared accomplishment involving mainly the trimmer and horse owner, but also expert advisors and members of the horse owner's social circle.

The success of a trimmer's business was also a shared accomplishment. Horse owners tended to find trimmers through word-of-mouth recommendations. Also, some owners decided to keep their horse barefoot after seeing how successful this approach was for other people's horses. Trimmers employed several reputation-building and safeguarding strategies, including being selective about which clients they took on, providing a high level of customer service to support existing clients and ceasing to work with clients who were not implementing their advice.

Conclusions

Keeping a horse barefoot is a holistic, foot-centred approach to delivering care. It involves balancing the care, exercise and environmental factors that affect horses' hooves. The approach is a co-production involving not only the horse owner and trimmer but also members of the owner's equine and social networks. Trimmers' businesses are reliant on reputation and they actively take steps to build and safeguard it.

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Glossary

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Explanation of terms

Applied equine podiatrist. A **trimmer** who has received training from the Institute of Applied Equine Podiatry (IAEP). Further details about the IAEP can be found on their website [1].

Barefoot, shoeless or unshod? Some members of the barefoot community differentiate between the three words. For example, Barker and Braithwaite, in their book entitled *Feet First* [2], differentiate between the two terms by using 'barefoot' (and 'natural hoof care') to apply to domestic horses that are working without shoes, and the term 'unshod' to describe horses that do not wear shoes but are not in work. Within this thesis the term 'barefoot' has been used unless a different word has been used in a quote.

Conditioning. Some barefoot proponents believe that analogies can be made between horses' feet and muscles in so far as the implementation of appropriate exercise/training regimes will lead to increased strength and that if the exercise/training regime lapses then the condition of the horse's hooves will deteriorate. Hoof exercise/training regimes recommended by trimmers may include specifications about type(s) of terrain that the horse covers (soft, hard, small stones, large stones etc), speed (walk, trot, canter, gallop), transitions (direct [i.e., missing a pace, for example, halt to trot] or progressive [i.e., going through all relevant paces]), twists and turns (size of circles, turns on fore-hand, turns on haunches), distance travelled, load carried (yes/no, if yes, how much weight), jumping (yes/no, if yes, to what height and number of jumps).

Coronary band. This is the part of the horse's anatomy that is the junction between the horse's hair and the hoof wall (see Photograph 1 for location). New hoof is formed in the tissues of the coronary band. It has been stated that the hoof wall grows at the rate of approximately 6mm per month (0.197mm/day), taking from 9 to 12 months (270-365 days) to grow from the coronary band to the distal border [3].

Environment. This is a term used within the barefoot community to mean not only the surroundings or conditions in which the horse lives but also wider factors that might affect the horse. Examples of environmental factors include bedding, exposure to herbicides or pesticides, anthelmintic products, the weather. Usually, feed and exercise are considered as separate categories of influence.

Equine Cushing's Disease. See **pituitary pars intermedia dysfunction (PPID)**

Equine podiatrist. A **trimmer** who has received training from Equine Podiatry Training Ltd and/or is a member of the Equine Podiatry Association EPA, sometimes referred to as EPA(UK) or EPAUK. Further details are available from the EPT [4] and EPA [5] websites.

Farrier. A specialist in equine hoof care who makes and fits shoes for horses. Their role also includes trimming and balancing the horse's hooves in preparation for shoeing or, at other times, simply to allow the horse to remain comfortable if their hooves grow faster than they wear away. Farriers can be a source of advice for horse owners and they also have a role to play, in conjunction with veterinary surgeons, in foot health care, often by making (and affixing) remedial shoes.

Foot. See **Hoof, hoof capsule and foot.**

Frog. A part of the horse's foot (see Photograph 2 and Photograph 3 for location). The purpose of the frog remains equivocal. Believed functions include allowing expansion of the heels and flexion of the foot during weight-bearing, to act as a non-slip pad, to act as a cushion against concussion, to act as a pump to aid circulation and to act as a mechanism to expand heels [6].

Heel. This is the back part of a horse's foot (see Photograph 1 for location).

Holistic approach. This means that not only the horse's hooves but also the rest of the horse's body and the horse's **environment** are considered when making barefoot hoof care-related decisions. There is a belief within the barefoot community that these three areas are interconnected and changes to any one area may have effects both within that area and between areas.

Hoof. See **Hoof, hoof capsule and foot.**

Hoof capsule, hoof and foot. The hoof capsule is the collective name for the components, visible to the naked eye, that form a casing on the ground surface of the limb and protects the soft tissues and bony structures that are enclosed within the capsule. The hoof wall forms part of the hoof capsule. A hoof capsule is sometimes referred to just as a hoof. A foot is the collective name for the hoof capsule, and everything enclosed within it. See Photograph 1.

Hoof wraps. These consist of a length of bandage type material which is impregnated with a synthetic, fibreglass-like resin substance. The 'bandage' is soaked in water before being wrapped around the horse's hooves. Once applied, the 'bandage' dries quickly dry to form a rigid cast-like structure around the hoof. There are different views on how hoof wraps should be applied but the idea behind their use is that they provide support to the hoof whilst still allowing the hoof to distort. Some hoof wraps, when dry, become harder than others. One example is the poly flex-wrap. Further details about poly-flex wraps are available from a website that sells these products [7].

In work. A horse is said to be 'in work' if routinely undertaking exercise specified by the horse's owner/rider/carer. The horse may be undertaking one or more of three different categories of activities: being ridden, driven or performing movements orchestrated by a person on the ground.

Laminitis. This is an inflammatory condition of tissues (lamellae) in the horse's foot. It is a common and extremely painful condition that is often recurrent for individual horses. There are a number of underlying conditions that can lead to laminitis but the precise sequence of events leading to laminitis is unclear. Conventional treatment involves administering pain relief, supporting the foot and altering diet so as to reduce factors likely to cause or contribute to the condition. Further details are available on the University of Liverpool Equine Hospital website [8].

Pituitary pars intermedia dysfunction (PPID). This is the name of a condition in which the normal mechanisms that control hormone production by the pituitary gland are damaged. Excessive amounts of hormones are produced by the gland and enter the horse's circulatory system, affecting the whole body. Clinical signs include increased coat length and delayed shedding of the winter coat, laminitis, lethargy, increased sweating, weight loss and excessive drinking and urinating. There are a number of medical treatments that can control the disease, but it is not curable. Further details are available from the Royal Veterinary College website [9].

Livery yard. Horse owners/carers who do not own (or rent) their own land may keep their horse at a livery yard. This is a commercial establishment which, in exchange for a set fee, gives the horse and owner/carer access to a range of services which may include fields, a stable, a training area. Livery may be 'full' (all care tasks undertaken by livery yard staff), 'part' (care tasks shared between the owner and livery yard staff) or 'DIY' (DIY stands for 'do it yourself' and in these set ups all care tasks are undertaken by the owner/carer).

Navicular disease, navicular syndrome and caudal heel pain. There is no accepted definition of navicular disease based on clinical, pathological or radiological findings. However, it is clinically recognised as a degenerative condition involving the navicular bone causing (usually) bilateral forelimb lameness which is not permanently alleviated by rest or corrective shoeing [10]. The term **navicular syndrome** is often used when the horse shows clinical signs that are similar to navicular disease but where lameness can be alleviated by rest or shoeing [10].

Pads. These may be made of a range of materials including Styrofoam, EVA (ethylene-vinyl acetate) foam or gel. They are sometimes used in hoof boots and at other times are applied directly to horses' hooves (usually using gaffer tape). The pads provide support to the solar aspect of horses' hooves. As well as being used during the **transition period**, they can be particularly useful as first aid for horses with acute **laminitis**.

Rock-crunching. This is a term used by the barefoot community to describe highly functioning (i.e., tough) bare feet as evidenced by the fact that they can, or are believed to be able to, move easily across extremes of terrain (a rocky surface) for extended periods of time without causing the horse any discomfort.

Spectrum of usability. This is a system developed by the Institute of Applied Equine Podiatry (IAEP), for use by trimmers, for rating structures of the hoof, namely the frog, sole, angle of the bars, quarters, toe and cartilages/digital cushion. Trimmers give each structure a rating of between 1 and 10, with 1 being the lowest rating and 10 indicating perfection. The scores for each structure, for each hoof, are recorded, along with additional information, on a sheet at each trimming visit (an example sheet can be found on the IAEP website [11]). This (quantified) assessment is used by trimmers to determine the level of work that the horse is able to undertake without discomfort. As data are recorded at each visit, the completed sheets provide an ongoing record of improvements or deterioration in hoof health and, therefore, can be useful when trying to determine whether any changes in husbandry or exercise have affected the horse's hooves.

Thrush. This is an infection of the **frog** (and occasionally the sole of the foot, see Photograph 2 for location). It is caused by a number of infectious organisms, mainly anaerobic bacteria. Usually infections involve many organisms at once - as many as 13 different species have been cultured from one site [10].

Tools. This is a collective term used by some trimmers for the methods that they use to help improve the functionality of horses' hooves. The methods may include changes to husbandry or exercise protocols, or the use of products, for example, **pads**.

Track system, sometimes referred to as 'paddock paradise', which is the title of a book written by barefoot proponent Jaime Jackson [12] and is essentially a paddock configuration which provides the horse with an area in which to live that resembles their natural environment more closely than traditional stabling and turnout. The aims are to encourage movement and limit access to high sugar grass. Opportunities to interact with the environment are also seen as important and are believed to help improve the horse's mental health.

A track system can be as simple as placing an inner fence, usually electric, in the centre of a paddock making a track around the outside or can require elaborate landscaping and specialist planting. Design features, which encourage the horse to interact with their environment include adding different terrain (such as woodland, gravel, hills), providing rolling areas, scratching posts or natural obstacles, such as logs, to negotiate. The planting of herbs and bushes or the placing of hay in and around bushes can encourage naturally foraging behaviour. It is believed that the increased movement and time spent interacting with the environment can decrease eating time and help improve mental health.

Transition period. This is the interval of time between removing shoes and the horse being comfortable barefoot, including being able to carry out the workload required by the owner/loaner without discomfort. There is considerable variation in the length of the transition period. For some horses it can be instantaneous whilst, at the other extreme, it can last more than a year. Influential factors include the condition of the horse's foot at the time the shoes were removed, and the level of work required from the horse.

Trimmer. This is a collective term for any individual who provides routine hoof-related services to barefoot horses, which may or may not include trimming horses' hooves. It includes people who refer to themselves as 'trimmers', and also people who might always, or sometimes, refer to themselves as equine podiatrists (EPs), applied equine podiatrists (AEPs) and some farriers. For simplicity, and to preserve anonymity, all those who participated in this study, who earned money by providing routine hoof-related services to barefoot horses are referred to as 'trimmers'.

White line disease. This is an infection of the white line. The white line is the part of the horse's hoof that connects the sole of the hoof to the hoof wall (Photograph 2). The cause of white line disease is unknown, but it's thought to be caused by miscellaneous mixed infections by opportunist bacteria [10].

List of abbreviations

AANHCP	Advancement of Natural Horse Care Practices
BC	Before Christ
BHS	British Horse Society
CAM	Complementary and Alternative Medicine
CAVM	Complementary and Alternative Veterinary Medicine
CI	Confidence Interval
CPD	Continuous Professional Development
DAEP	Diploma in Applied Equine Podiatry
DIY	Do It Yourself
EPA	Equine Podiatry Association
EPT	Equine Podiatry Training
FRC	Farriers Registration Council
GB	Great Britain
GTM	Grounded Theory Methods
HO	Horse Owner
IAEP	Institute of Applied Equine Podiatry
ISNHCP	Institute for the Study of Natural Horse Care Practices
IQ	Interquartile Range
LH	Liberated Horsemanship
NICE	National Institute for Health and Care Excellence
NOS	National Occupational Standards
PAT	Professional Advisory Team
PPID	Pituitary Pars Intermedia Dysfunction
QR	Questionnaire Respondent
SHP	Strasser Hoofcare Professionals
T	Trimmer
TPB	Theory of Planned Behaviour
UK	United Kingdom
UKNHCP	United Kingdom National Horse Care Professionals
US	United States
USA	United States of America
WCF	Worshipful Company of Farriers

1 Introduction

Horses are embedded within our history and culture. Historically, horses have played a diversity of important roles in people's lives, including as food, as a mode of transport [13], in agriculture [14], in war [15], and in sport [16]. As well as these largely functional roles, horses feature in mythology and superstition. For example, in Greek mythology, the sea God Poseidon is associated with horses (and bulls) and there are also stories of Pegasus, the flying horse, who was tamed through the use of a golden bridle [17]. In terms of superstition, the ancient Irish hung up the feet and legs of their deceased steeds in their houses, setting a particular value upon their hooves, and in China today a horse's hoof hung up indoors is supposed to have protective powers [18].

Horses also feature in art and literature. The oldest examples of the horse in art are those appearing in pre-historic cave paintings in Lascaux (in France), which are estimated to be approximately 19,000 years old [19]. More recently, famous artists who have painted horses include Leonardo da Vinci (16th century) [20], and Peter Paul Rubens and Antony van Dyck (17th century) [21]. Famous artists who painted horses in the 18th, 19th and 20th centuries include George Stubbs, Edgar Degas and Sir Alfred Munnings respectively [22]. The horse also features in literature. Well-known books that have been turned into films include *Black Beauty* (Anna Sewell) [23], *War Horse* (Michael Morpurgo) [24] and *Seabiscuit* (Laura Hillebrand) [25].

The multiple uses of the word 'horse' within the English language may reflect the long association and importance of horses to English-speaking people. Examples include the words horsepower (a measure of strength), horse-sense (a synonym for common sense) and horseplay (a term to describe rough play) [26]. In addition, workhorse refers to a person or machine that dependably performs hard work over a long period of time, a hobby-horse is either a child's toy (consisting of a stick with a model of a horse's head on one end) or a preoccupation or favourite topic, whilst the phrase 'from the horse's mouth' implies getting information directly from the original source [26].

Historically, in the United Kingdom (UK), the role of the horse was largely functional (for example, agriculture, transport and defence), however, over time, their role has evolved and by the end of World War II, the horse's role in society revolved around sporting and recreational endeavours [27]. Data collected in 2012 showed that this is also the case today, with most of the (approximately 1 million [28]) horses in the UK being kept for what is described as 'sport and leisure purposes' [29]. People have

been found to have strong connections with horses. A Dutch study of horse welfare found that 47% of respondents indicated that their horse was like a 'partner or child' to them [30]. Similarly, respondents to a UK questionnaire most commonly described their horses as pets and indicated that they enjoyed a sense of achievement and satisfaction as a result of their relationship with their horse [31].

1.1 Providing care

Over 50 years ago, it was concluded in a report, written by a technical committee to enquire into the welfare of animals kept under intensive livestock husbandry systems, that:

An animal should at least have sufficient freedom of movement to be able without difficulty, to turn around, groom itself, get up, lie down and stretch its limbs. [Brambell 1965, p13 [32]]

This concept of freedoms was developed by the Farm Animal Welfare Council and the result was the 'Five Freedoms':

1. freedom from hunger and thirst, by ready access to fresh water and a diet to maintain health and vigour
2. freedom from discomfort, by providing an appropriate environment
3. freedom from pain, injury or disease, by prevention or rapid diagnosis and treatment
4. freedom to express normal behaviour, by providing sufficient space, proper facilities and appropriate company of the animal's own kind
5. freedom from fear and distress by ensuring conditions and treatment which avoid mental suffering [33].

In England, the Animal Welfare Act 2006 [34] uses these freedoms to set out the responsibilities of a person in charge of an animal's welfare. Similar legislation exists in Scotland, Wales and Northern Ireland [34]. Although originally designed for farm animals, these freedoms are considered relevant to horses [35]. Robinson, a researcher with a particular interest in the human health benefits that are associated with pet ownership [36], observed that many owners keep their horses in the best possible conditions that their disposable income allows and that for some people, this may include making sacrifices, such as not taking holidays, never having a new car and buying fewer clothes [37].

The nature of delivery and receipt of care, even within the human context, has not been widely studied [38]. Mol et al consider that good care (in the generic sense) can be characterised by 'persistent tinkering in a world full of complex ambivalence and

shifting tensions' [38]. This use of the word 'tinkering' suggests a casual or desultory approach. However, this attitude is not reflected in the case studies presented by Mol et al [38]. For example, when considering fitting users for wheelchairs, care is described not simply as a process of giving something to others who passively receive it, but rather it is a process of meticulously exploring, testing, touching, adapting, adjusting, paying attention to details and changing them until a suitable arrangement has been achieved [39]. This arrangement may also be a compromise because of the different perspectives and priorities of stakeholders (including caregivers and care receivers) and available resources (including time, money and equipment) [39].

The concept that care is not received and delivered in isolation is also reflected in a study about the care of farm animals. It is highlighted that farmers' practices are embodied, located, and responsive to their livestock, their land, their families, themselves, their neighbours and their communities and that their practices involve juggling the varied and competing needs of this variety of heterogenous entities [40]. Schuurman and Franklin report findings from research carried out to explore care provided in a horse retirement yard, i.e., a commercial livery yard catering for horses during the period between active work and death [41]. Findings from this research have shown that the delivery of care to horses is affected by many factors, including available facilities (natural and built) and the influence of all who directly, or indirectly, come into contact with the horse [41]. Birke and Hockenhull stressed that owners who keep their horses on livery yards must make decisions about how best to look after their animal within the social context of those yards and highlighted that this context may not always be supportive [42]. They also considered that even for owners keeping horses at home, taking a horse out for a ride or to a competition puts the horse on public view and potentially puts the owner in contact with people who hold values about horses that differ from their own [42].

1.2 Horses' feet and their care

In about 350 BC, in his book *The Art of Horsemanship*, Xenophon, an Athenian philosopher, historian and soldier, provided the following explanation as to why he considered war-horses' feet were important:

Just as a house would be good for nothing if it were very handsome above but lacked the proper foundations, so too a war-horse, even if all his other points were fine, would yet be good for nothing if he had bad feet for he could not use a single one of his fine points. [Xenophon 350 BC, p14 [43]]

For those involved with horses, the need for good equine foot care remains as important today as in 350BC for the same reasons as outlined by Xenophon. The research presented in this thesis focuses on how people view and manage the daily care of barefoot horses' feet, and the impact that this has on the wider care provided to this group of horses.

The horse is a single-hoofed quadruped which effectively stands upon its middle finger [44]. The horse's 'foot' is the name used to describe the hoof itself and the structures within it [45]. Horses are reliant on their hooves for effective locomotion and as a defence against the effects of the physical and chemical environment [46]. Hooves also protect the structures within the foot from damage and transmit, painlessly, the forces of locomotion to and from the axial skeleton [46]. There is also a view that anything that undermines the integrity of the hoof is to the detriment of the foot as a whole [45]. However, there is no consensus about which hoof characteristics should be examined when determining the condition of equine hooves as part of a welfare assessment [47, 48].

Balancing hoof growth and hoof wear

The hoof wall grows throughout the life of the horse and this replaces hoof that is lost to wear at the ground surface [49]. However, in the population of domestic horses, it is rare for the wear and growth of hooves to be in perfect equilibrium [50]. Overgrowth can be managed as the hoof wall is soft enough for excess to be removed by trimming. Horseshoes, normally made of metal but sometimes wholly or partially made of modern synthetic materials, are designed to protect horses' hooves from excess wear [51]. There is wide recognition that shoeing is not without drawbacks, including damage associated with the nails that are used to fix the shoe to the hoof [51, 52]. It has been proposed that the free-roaming lifestyle of the feral horse promotes ideal foot health because of the long distances travelled, varied natural diet and an absence of alleged harmful effects of domestication, including the application of shoes [12, 53]. However, a detailed study of the feet of a population of feral horses in New Zealand highlighted traits that led the authors to conclude that the feral foot type should not be used as an ideal model for the domestic horse [54]. Findings from this study showed that there were large variations in the size and shape of horses' feet [54]. Further, the incidence of features that the authors described as abnormalities was high and included lateral flare (49% of feet), laminar rings (44% of feet), dorsal flare (41% of feet), long toe conformation (35% of feet), contracted/under-run heels (34% of feet) and wall defect (31% of feet) [54]. Frog pathology was

identified in 34% of feet (65% of horses) and white line separation in 29% of feet (50% of horses) [54].

Debates around models of hoof trimming and ‘balancing’ hooves (i.e., the optimal model of hoof conformation) were recorded as early as 1869 [55], and continue into the 21st century [56]. The conformation of a horse’s hooves is not static and can be altered by human intervention, for example, by hoof trimming and by the application of podiatric devices, such as horseshoes [57, 58]. Relationships between foot conformation and lameness caused by foot-related issues (between 34.1% [59, 60] and 51.9% [61] of all cases of lameness in the UK) have been suggested but it has also been highlighted that foot conformation may change as a result of lameness and, therefore, these associations may be due to an effect rather than a cause [62].

1.3 Current hoof care in the UK

Hoof care providers

A blacksmith is a metalsmith who creates objects from wrought iron or steel by forging metal and using tools to hammer, bend and cut [63]. A farrier is a blacksmith who specialises in equine hoof care [64]. The routine work of a farrier involves trimming horses’ hooves (to remove excess growth) and shoeing [64]. In Great Britain (GB), a law is in place (the Farriers (Registration) Act 1975 [65]) that stipulates that all persons who shoe horses, including their own horses, are required to be registered. This register is held by the Farriers Registration Council (FRC) and, whilst there are some exceptions (mainly for older farriers and those who received farriery training overseas), farriers whose names are on the register have completed an apprenticeship with an Approved Farrier Trainer (AFT). This apprenticeship lasts just over 4 years. In the 1975 Act, farriery is defined as:

...any work in connection with the preparation or treatment of the foot of a horse for the immediate reception of a shoe thereon, the fitting by nailing or otherwise of a shoe to the foot or the finishing off of such work to the foot. [Farriers (Registration) Act 1975, Section 18 [65]]

The wording means that hoof trimming that is not undertaken in preparation for the application of a shoe does not fall within this definition and, therefore, it is legal not only for registered farriers but also for individuals who are not registered by the FRC to offer trimming services for financial reward. In the UK, trimming businesses started to appear at the beginning of the 21st century [66].

Conventional hoof care advice

The British Horse Society (BHS) is a charity that is involved in education, equestrian welfare, access and safety, and also lobbies government on behalf of the horse and those who care for them [67]. The BHS *Manual of Horsemanship* [68] provides advice on equitation and horsemanship. Information provided in this book (8th Edition) [68] is summarised in this section.

It is explained in the *Manual of Horsemanship* that the need for shoeing has arisen as domestication has led to horses working on hard roads and that this causes the rate of hoof wall wear to exceed the rate of hoof wall growth. Shoes protect the hoof wall from wear but as the hoof wall continuously grows, the hoof wall of a shod horse will become unduly long and if not trimmed chronic lameness may result. The advice is that, as a general rule, a shod horse should visit, or be visited by a farrier once a month as even if his shoes are not worn badly, the hoof wall will have grown and will need trimming. It is also explained that a shod horse that carries out heavy work on hard roads may wear through his shoes in less than a month, in which case the horse will need re-shoeing more frequently than once a month.

In the *Manual of Horsemanship*, keeping a horse unshod is identified as a feasible option for horses who do not work on hard, gritty roads, or flinty tracks. The advantages of keeping a horse unshod are described as being to save money on shoeing charges, the fact that unshod horses have a more secure grip than a shod horse on every type of surface, and that an injury resulting from a kick from an unshod horse is likely to be less severe than an injury resulting from a kick from a shod horse.

It is advised that the transition from shod to unshod should be gradual as, on removal of shoes, nature's response to the increased wear on the wall and sole of an unshod foot is to grow a harder and firmer hoof wall, and this takes time. Thus, until the harder horn has developed, care should be taken to ensure that the horse is not worked so hard that he becomes foot sore. It is also explained that, like shod feet, the feet of unshod horses need to receive regular attention from a farrier so that they present an even surface to the ground and so that splitting and cracking of the hoof wall can be managed.

Horse owner hoof care practices

Some information about the frequency of delivery of hoof care in the UK has been collected via questionnaires [60, 69-71]. The most recent general population information (published in 2013) was collected by Ireland et al [60] by sending a postal

questionnaire to veterinary registered owners of horses and ponies in GB (797 responses, 17.1% response rate). Only 0.4% (95% confidence interval [CI]: 0.0 to 0.8%, 3/797) of respondents' horses were reported not to have received hoof care. The majority of these (95.6%; 95% CI: 94.2% to 97.0%, 762/797), were attended by a farrier, with other foot care providers being barefoot trimmers/equine podiatrists (2.3%; 95% CI: 1.2% to 3.3%, 18/797), the owner (1.0%; 95% CI: 0.3% to 1.7%, 8/797) and veterinary surgeons (0.8%; 95% CI: 0.2 to 1.4%, 6/797).

Results from this survey showed that, overall, almost one third (31.7%; 95% CI: 28.5 to 35.0%, 253/797) of horses were unshod [60]. A statistically significantly greater proportion of retired horses were unshod (65.6%; 95% CI: 56.1% to 75.0%) compared with animals participating in some sort of activity (27.0%; 95% CI: 23.7% to 30.3%), ($p < 0.001$). Further, greater proportions of horses aged < 5 years (72.6%; 95% CI: 61.5% to 83.7%) and horses > 25 years (50.0%; 95% CI: 35.9% to 64.1%) were unshod compared to horses aged 5 to 25 years (26.9%; 95% CI: 23.5% to 30.2%), ($p < 0.001$). Overall, the median frequency of hoof care provision was every 6 weeks (interquartile range [IQ]: 6 to 8 weeks). Horses aged < 5 years and > 25 years received less frequent hoof care (median intervals 7.5 and 8 weeks, respectively) although there was no change in the IQ (6 to 8 weeks for both the < 5 years and the > 25 years groups).

Information collected (using a self-administered postal questionnaire) from a randomly selected sample of veterinary registered owners with horses aged ≥ 15 years, showed that over half of the study population were conventionally shod (53.2%, 488/918) and that an additional 6.6% (61/918) received some form of remedial shoeing [70]. The age of horses that were unshod (median=21.2 years) was statistically significantly higher than the age of horses that were shod (median=19.0 years), ($p < 0.001$). Further, compared with horses that were in work, a greater proportion of retired horses were unshod ($p < 0.001$). Results from an analysis of the responses relating to the subgroup of horses aged ≥ 30 years [71] showed that approximately two-thirds of these older horses were unshod (67.8%, 59/87), just over a quarter (26.4%, 23/87) were conventionally shod and a very small number (4.6%, 4/87) had received some form of remedial shoeing. Results from this questionnaire [70, 71], and a different questionnaire (published in 2011) that collected information from randomly selected veterinary registered owners of horses aged ≥ 15 years living in the North West and Midlands regions of the UK ($n=900$) [69], all showed that the frequency of hoof care delivery tended to decrease as the age of the horses

increased. For example, overall questionnaire results relating to the population aged ≥ 15 years showed that the median age of horses receiving hoof care (trimming or shoeing) every 4 to 8 weeks was 19.2 years (64.6%, 581/900), whilst the median age of horses receiving hoof care every 9 to 12 weeks was 21.2 years (19.1%, 172/900) [70].

Use of hoof care products

Thirkell and Hyland [72] used an online questionnaire (available for completion during the period from January to March 2018) to collect information on the use of hoof care products. The target population for this questionnaire was residents of the UK who were responsible for the overall management of their horse's health and whose horses were shod. In total, 387 complete responses were available for analysis. Findings from this study showed that the use of hoof products was widespread among respondents, with 80%, (309/387) claiming to use them as part of their horse's routine hoof health management. The most popular hoof care products were described as hoof dressings (35.9%, 139/387), (unspecified) nutritional supplements (35.7%, 138/387), and hoof oil or varnishes (32.8%, 127/387).

1.4 Barefoot care

Between 2001 and 2005, the Journal of Equine Veterinary Science published a series of articles and letters that presented views, expressed mainly by veterinary surgeons, for and against keeping horses barefoot [73-80]. The main focus of the discussion was on welfare, with debates focused on whether wearing shoes causes horses harm and whether horses can be kept barefoot without incurring harm. The arguments put forward were based on personal experience and observations rather than on conclusions drawn from scientific studies. A more detailed summary of the different views is provided in Chapter 2.

1.5 Aim and objectives

The debate around keeping horses barefoot led me to question my own conventional beliefs about hoof care, particularly my entrenched belief that horses that are in work need to wear shoes. My initial research found no published peer-reviewed studies about the practices and beliefs of trimmers and horse owners who keep their horses barefoot. Thus, the aim of this research was to fill some of that knowledge gap by improving understanding, from the perspectives of trimmers and barefoot horse owners, of keeping horses barefoot. Consequently, this study adopted three objectives:

Objective 1: Collect information about the demographic characteristics of members of the barefoot community (and their horses) and provide descriptive details about trimmers' businesses (Chapter 4)

Objective 2: Develop an understanding of why some individuals become trimmers and the (working) lives of trimmers (Chapters 5, 6 and 7)

Objective 3: Explore why some horse owners keep their horses barefoot and what it means, from the perspective of owners, to keep their horses barefoot (Chapters 8 and 9).

1.6 Overview of the thesis

Background material is presented in Chapter 2. This includes some historical detail about keeping horses barefoot as well as information, extracted from books and the Internet, which provides an insight into the complexity of the 'barefoot world'. Chapter 2 also includes a summary of published material that demonstrates some of the controversy surrounding keeping horses barefoot.

The methods are described in Chapter 3. The research presented in this thesis was carried out using qualitative and quantitative methods, specifically, interviews (with trimmers and horse owners) and two online questionnaires (one targeted at trimmers and the other at owners of barefoot horses). The interview transcripts were analysed using grounded theory methods (GTM).

Chapter 4 includes introductory results. It provides the study participants' details to meet objective 1 (identifying the demographic characteristics of members of the barefoot community [and their horses] and provide descriptive details about trimmers' businesses). This includes participant's demographic details, information about their horses and, for the trimmers, information about their businesses. These details are supported, where available, by comparative data from the published literature. Chapter 4 also includes an overview of the overarching conceptual model that was developed as a result of analysing trimmer interview transcripts. This model shows the essential components of becoming and being a trimmer, regardless of the type of training undertaken or beliefs held by the trimmer. It comprises three elements: (i) becoming and being a trimmer, (ii) the provision of foot-centred care, and (iii) building and safeguarding reputation. These three elements play a critical role in building and sustaining trimmers' businesses.

Chapters 5, 6 and 7 include material relating to objective 2 (to improve understanding of why some individuals become trimmers and the working lives of trimmers). In Chapter 5, interview and survey data are used to show how the individuals who participated in my study became trimmers and what life as a trimmer is like for them. Chapter 5 also includes information about the pressures faced by trimmers as a consequence of acting in a way that is contrary to the norm. The provision of foot-centred care and the balance management cycle are addressed in Chapter 6 and building and safeguarding reputation is addressed in Chapter 7.

Chapters 8 and 9 address objective 3 (to improve understanding of why some horse owners keep their horses barefoot and what it means, from the perspective of owners, to keep their horses barefoot). In these Chapters, results from analyses of data collected from horse owners are used to explore owners' experiences relating to keeping horses barefoot. Where relevant, these are compared with the views and experiences of trimmers. Data about being a barefoot horse owner, including why owners chose this approach to hoof care, are presented in Chapter 8 and data relating to providing foot-centred care are presented in Chapter 9.

The discussion and conclusions are presented in Chapter 10.

2 Background

This Chapter starts with an overview of important human factors that underpin carer behaviour (Section 2.1) and is followed by information about unconventional (including natural) approaches to providing care (Section 2.2). The remaining two sections of this chapter comprise a brief history of equine barefoot care (Section 2.3) and details about some of the controversy surrounding it (Section 2.4).

2.1 Human factors that underpin carer behaviour

A review of the literature undertaken by Hemsworth [81] has shown that within recreational horse populations around the world a substantial proportion of the welfare problems are due to horse owner neglect or mismanagement and that these arise as a consequence of ignorance rather than abuse. Improving the knowledge and the provision of relevant information to recreational horse owners has been shown to improve owner husbandry and management practices and the subsequent health and welfare of their horses [81]. However, findings reported by Visser and Van Wijk-Jansen [30] emphasise that multiple factors are likely to influence recreational horse owner husbandry practices and, therefore, more than just the provision of relevant information may be needed to prevent recreational horse owner mismanagement.

A review of dairy farmer literature showed that, in that environment, multiple factors including farmers' personality and attitudes impacted on dairy cattle health, welfare, productivity and management [82]. This review also highlighted that, in general, attitudes indicating higher degrees of technical knowledge, problem solving, perceived responsibility, perception of control of a situation, a better human-animal relationship or a positive evaluation of the benefits of management decisions tended to impact in a beneficial way on outcomes. 'Agreeableness' and 'conscientiousness' were shown to promote better farm performance, whereas 'neuroticism' impacted negatively on performance.

Other researchers have identified that multiple factors may play a role in forming and changing dog owner behaviours [83, 84]. It has been suggested that detailed understanding of the variables that influence how the dog's role is constructed within the family and the wider society is required [84] and also that normative beliefs and peer pressures may have a role to play in owner behaviour change [83].

The welfare of all domesticated animals, including horses, is ultimately determined by those responsible for their day-to-day care [85]; it is, therefore, important to understand the human factors that underpin carer behaviour.

2.1.1 Taking responsibility

Hemsworth et al [81] highlight that recreational horse ownership appears to be both diverse and unregulated and consider that the limited available data have the potential to make recreational horses vulnerable to welfare issues. A wide range of welfare problems have been identified by researchers [86, 87]. These include poor preventative health care, issues arising when old or sick horses are not euthanised in a timely manner, lack of owner knowledge of welfare needs, fear and stress involved in horse use, inability of owners to recognise pain behaviour, obesity and inadequate feeding practices [86].

Schuurman and Franklin [88] consider that in contemporary equestrian culture in the West, responsibility in horse ownership mostly relates to questions concerning equine welfare. However, there is considerable controversy around understandings of what is good for the animal [42, 89]. Horseman et al 2017 [85] found that there was a tendency for those who participated in their study to associate welfare problems with contexts and management methods that they perceived were different from the ones with which they were familiar, and that in contrast, these individuals under-recognised or downplayed the significance of welfare compromises seen within their own or familiar contexts.

Pets are typically perceived as having good welfare and most pet owners consider that they care for their pets appropriately [83, 90]. Westgarth et al [84], who used interviews to elucidate beliefs and views about responsibility in dog ownership, found that whilst there was great variation in key aspects of dog-owning behaviour, all participants considered themselves responsible dog owners. Meeting the welfare needs of dogs is often closely linked to 'responsible dog ownership' and in the UK, the concept of responsible ownership has been promoted by the Kennel Club, the British Veterinary Association, animal charities and councils [91]. Campaigns by these organisations have encouraged owners to not only meet their legal requirements but also to engage in behaviours such as keeping a dog on a lead where requested and picking up faeces. However, findings from a large-scale Australian survey showed that even committed dog owners failed to comply with some responsible dog ownership practices [83].

2.1.2 Moral obligation

The concept of care includes both the overt act of providing for the welfare of another and the internal process of concerned attention; the latter is sometimes described in terms of virtues or moral emotions [92]. Glanville et al [93] suggest that, in this context, the term 'duty of care' can be defined as the moral obligation of a person to provide appropriate care for the physical and psychological needs of the animals that are their responsibility, thus facilitating a good state of welfare. Van der Werff et al [94] suggest that for behaviours that are enjoyable, the enjoyment itself provides the intrinsic motivation, while for behaviours that are not enjoyable, people will be more likely to do them if they feel obligated to do so. One example of dual motivations relates to dog walking, an activity that not all owners do regularly [95]. A recent study suggests that intrinsic motivators (for example, finding an activity pleasurable) seem to be more important with regard to dog walking than extrinsic motivators (for the purpose of a reward outside the activity itself, such as reducing feelings of guilt) [96]. Two distinct types of dog walks have been identified: functional and recreational [97]. Functional walks were purposed through feelings of guilt to provide the dog with a convenient form of exercise but were less pleasurable for the owner. In contrast, recreational walks provided significant owner stress-relief and were longer, typically took place during pleasant weather and at weekends, in less urban environments, and involved more members of the household. Limitations on time availability, conducive weather or accessibility of desirable physical environments for dog walking, led to functional rather than recreational dog walks.

2.1.3 Attitudes, beliefs and values

The Theory of Planned Behaviour (TPB) is a prominent framework for predicting and explaining behaviour in a variety of domains. Glanville et al [93] explain that, according to the TPB, a person's attitude towards the behaviour, their subjective norms (perceptions of social pressure from important others), and their perceived behaviour control (i.e., perceived level of difficulty in performing the behaviour) combine to shape that individual's behavioural intentions and behaviours. These attitudinal factors are a direct product of their associated beliefs. Beliefs are personal perceptions of truth, or subjective facts, and serve as the basis for attitudinal evaluations.

Applied experimental research in animal care settings has demonstrated causal relationships between TPB elements, animal carer behaviour, and animal welfare outcomes [93]. Findings from studies in farming have indicated that the attitude of

stock people to handling animals is related to the behaviour of the stock people towards their animals [98]. These findings are important as there is compelling evidence to suggest that the behaviour of stock people may influence the behaviour, productivity and welfare of farm animals [98]. In companion animal research, findings support the important role of attitudes in management behaviours, such as registration, microchipping, neutering, and socialisation [83, 99].

Attitudes towards animals

In his book, *Dominance and Affection – The Making of Pets*, [100] Tuan argues that pet-keeping (whether the pet is an animal, a human or a plant) is about the human need to exert power to subdue nature. It has been argued that Tuan's argument is too simplistic as it ignores the active role of the animal in the relationship [101]. Veevers [102] proposes three potential functions of pets: projective (the pet serves as a 'symbolic extension of the self'), sociability (the pet facilitates interpersonal interactions by acting as 'social lubricant'), and surrogate (the presence of the anthropomorphised pet acts as a surrogate for human relationships). In contrast, Blouin [103] suggests that dog owners construct their relationship on a more purposeful level, with three categories: 'dominionistic' (using the animal for a given purpose), 'humanistic' (animal as surrogate human) or 'protectionistic' (valuing the animal for its intrinsic traits). The concepts of being humanistic and 'protectionistic', is supported by other researchers. Fox et al [104] found that some owners not only recognise their pets' individuality and 'personhood', but also their innate differences as an animal, something referred to in that publication as their 'animalness'. Whilst Sanders [105] suggests that pet owners commonly regarded their animal companions as virtual persons and rather than relegating them to generic species categories, they relate to them as individuals with whom they enjoy authentic social relationships bounded by shared histories.

Herzog, in his book *Some We Love, Some We Hate, Some We Eat* highlights that the way we view animals is complex and can be paradoxical. One example he provided relates to cats (who are major predators of wildlife in Britain [106]). Herzog, questions why is it that many cat owners do not seem to care about the devastation that cats cause to wildlife and highlights that, in a cruel irony many cat owners also enjoy feeding birds in their backyards, inadvertently luring birds to their death at the hands of their pet [107]. Herzog also uses the example of mice resident at a research facility to illustrate how our views can differ by location [108]. The mice kept for experiments ('good' mice) are well housed and protected by laws, whilst mice who

roamed freely in the building, many of whom were 'good' mice who have escaped, are categorised as 'bad' mice and are unprotected by laws. Indeed, the 'bad' mice are subject to pest control measures that are unlikely to be approved by any ethics committee considering the appropriateness of an experiment involving mice.

Attitudes towards horses: the human-horse relationship

Some horses are kept for their economic value and functionality and, therefore, can be regarded as working animals. Examples include those used in riding schools and trekking centres, competition horses and horses kept solely for the purpose of breeding. However, a Dutch study of horse welfare found that 47% of respondents indicated that their horse was like a *partner* or *child* to them [30]. Approximately two-thirds of these respondents were working and/or competing in different equine disciplines, suggesting that there may be no clear demarcation between working and non-working horses. This conclusion is supported by research carried out by Scantlebury et al [31] who classified horse owners into five categories via broad characteristics depending on whether they saw their horse as a pet, as work, as part of their profession; whether they were achievement focussed, and the satisfaction they gained from their relationship with their horse. Scantlebury et al found that most respondents displayed a mix of constructs, commonly describing their horses as pets, whilst still enjoying a sense of achievement and satisfaction as a result of their relationship.

In a study exploring the recognition and management of obesity in horses, it was common for participants to construct their horse as a pet and a companion. For these owners, providing for the horse was a leisure activity in itself [109]. However, participants in this study exhibited a fundamental dichotomy in their constructions of their horse, describing their horse as malleable and docile, yet potentially wild and difficult to handle. These dual constructions allowed owners to build narratives of transformation around their horses as they described transforming the animal from 'animal-other' into a tamed, controllable companion. Such companion-like constructions often included assigning identity and aspects of personhood to the horse and, as such, owners experienced dilemmas in how best to relate to and care for their animal, as an animal, or as a friend. Results from this study also showed that the relationship between horse and owner was often at the forefront of the owners' descriptions of their horse-keeping decisions, particularly when owners chose to go against the advice of professionals because they felt the professional did not know what was right for 'their horse' [110].

Values

The TPB lists a range of background factors that are deemed to influence behaviour-specific attitudes. Glanville et al [93] highlight that factors that have been found to correlate with attitudes to animals, animal management and animal behaviour include age, education, experience, marital status, cultural and various personality traits and that factors that are learnt and open to intervention include, emotions, general attitudes and values.

The cognitive hierarchy model, also known as the values-attitude-behaviour hierarchy [111] identifies core values as the cognitive foundation from which increasingly specific beliefs and attitudes develop. Schwartz considers that values are derived from three basic requirements of human existence: i) the needs of individuals as biological organisms, ii) requisites of co-ordinated social interaction; and iii) the functioning and survival of groups [112]. Schwartz originally proposed ten values: self-direction, stimulation, hedonism, achievement, power, security, conformity, tradition, benevolence, and universalism [113]; however, this list has subsequently been expanded to 19 values by the inclusion of a number of subtypes that allow more accurate characterisation [114]. The role of values in guiding and influencing animal carer attitudes and behaviour has not been investigated [93].

2.1.4 Contextual factors

The context in which owners make decisions has also been shown to be important. Downes et al showed that the pet owners' decisions about feeding their pet were not only affected by owner perceptions of control over feeding and their beliefs (about pet specific needs, pet food and pet health) but also the implications for the pet owner [115]. Further, pet exercise was shown to be influenced not only by beliefs about pet specific exercise needs but also the implications for the owner of exercising their pet. Other studies found that owners sought to balance their views of their dog's individual needs with consideration for the needs of others (including themselves) [84] and that owners' social circles as well as historical and personal contexts influenced views on dog walking [116].

2.2 Unconventional approaches to care

2.2.1 Complementary and alternative medicine

Medicine can be defined as the art or science of restoring or preserving health or due physical condition, as by means of drugs, surgical operations or appliances, or manipulations [117]. In terms of human healthcare, conventional medicine is the system in which medical doctors and other healthcare professionals (including nurses, pharmacists, and therapists) treat symptoms and disease [118]. Synonyms for conventional medicine include allopathic medicine, biomedicine, orthodox medicine, mainstream medicine and Western medicines [119]. The term 'complementary and alternative medicine' (CAM) is the umbrella term for treatments that fall outside of mainstream healthcare [120]. Examples include acupuncture, flower remedies (Bach), homeopathy, hypnotherapy, massage, reflexology and spiritual healing [121]. The clinical effectiveness of unconventional methods of treatment has been controversial among many medical professionals [122]. In many areas of CAM there is, so far, insufficient evidence to state with confidence that more good than harm is being done [121], although absence of evidence does not equate to evidence of absence of benefit (or harm) [123]. In the UK, within the field of human medicine, the use of CAM is widespread, with 46% of the population expected to use one or more CAM therapies in their life time [124]. Most CAM modalities are not funded by the UK NHS and, therefore, users pay almost all costs out of pocket; this willingness to pay suggests that, for users, perceived benefits outweigh costs [122].

Findings from a recent literature review showed the wide range of factors that patients who use CAMs hoped to achieve [125]. These are, in order of prevalence: a hope to influence the natural history of the disease, disease prevention and health/general well-being promotion, fewer side effects, being in control over one's health, symptom relief, boosting the immune system, emotional support, holistic care, improving quality of life, relief of side effects of conventional medicine, good therapeutic relationship, obtaining information, coping better with illness, supporting the natural healing process, and availability of treatment [125]. Findings from a different literature review, carried out to collate information on the beliefs held by CAM users [126], showed that CAM users wanted to participate in treatment decisions, were likely to have active coping styles and might believe that they could control their health. They valued non-toxic, holistic approaches to health and held 'postmodern belief systems' while viewing themselves as unconventional and spiritual. CAM users also tended to believe that psychological and lifestyle factors were important in the development of illness. Beliefs about the importance of holistic and natural treatments reflected an

emphasis on treating the whole person (not just the symptoms) and using natural methods or remedies (as opposed to processed medicines).

Complementary and alternative equine veterinary medicine

Studies have shown that complementary and alternative veterinary medicine (CAVM) is used to treat equine health issues. Examples include treatments for musculoskeletal issues and the use of homeopathy to treat chronic conditions.

Results from an online survey that collected information from horse owners about their use of CAVM to treat equine musculoskeletal issues [127] showed that 96% of respondents (n=423) had used a form of CAVM on their horse. The most frequently mentioned interventions cited by these respondents were massage (71%), chiropractic manipulation (59%) and magnetic therapy (54%). Results from a survey that collect information about veterinary surgeons' attitudes and behaviour towards the use of CAVMs to treatment of equine musculoskeletal issues [128] showed that respondents (n=127) attitude towards CAVM was positively correlated with CAVM training, and with more frequent examination of horses with back pain.

Information about use of homeopathy to treat chronic medical conditions in horses was recorded by 12 veterinary surgeons over a period of 12 months [129]. Details about the homeopathic treatments they provided to 289 horses (305 chronic conditions) showed that the eight chronic conditions most frequently treated with homeopathy were: arthritis, headshaking, laminitis, chronic obstructive pulmonary disease, sweet itch, dermatitis, sarcoidosis and Cushing's syndrome.

2.2.2 Natural approach to animal care

Horseman et al, found that one way in which equine stakeholders understood the concept of welfare was in terms of the horse's mental state, which they linked to natural behaviour. Natural behaviour (and its reciprocal, 'unnatural behaviour') is commonly suggested as a concept within animal welfare literature and a criterion by which to assess interventions on animals [130-132] as well as a concept to evaluate public perceptions of animal welfare [133, 134]. Others may think of naturalness as a value in its own right, suggesting that animals should be allowed to live naturally not for their own benefit, but because interference with nature is wrong [135].

Yeates [135] highlights that 'naturalness' is a vague and ambiguous term and proposes classifying unaffected wild populations as natural by definition and, where animals might have been affected by humans, suggests that they should be

compared to the closest population(s) of unaffected animals. However, he identifies that, when it comes to horses this suggested approach is problematic due to the absence of information about a relevant comparator population. He suggests that one possible comparator population is the extinct ancestors (perhaps the tarpan, *Equus ferus ferus*) but highlights that information from historical and paleontological sources about this population is likely to be insufficient to generate any useful conclusions. He also suggests that another possible comparator group might be extant relatives, but that Przewalski's horse (*Equus ferus przewalskii*) is a reintroduced captive population (and so arguably affected) and there is a dearth of other extant caballoids. Yeates concludes that any attempts to determine what is natural would seem so speculative that we are not in a position to make any significant conclusions about the naturalness of domestic horses' behaviour.

Birke [136], reports findings from a study of exploring the culture of 'Natural Horsemanship, an approach described by the author as horse people's '*...rejection of cultural values seen to be associated with mainstream equestrian training and their valorisation of methods deemed to accord more with the horse's natural behaviour*'. The author, perhaps unsurprisingly, found that owners were generally enthusiastic about doing everything 'naturally' with their horses. For many, being natural meant abandoning metal shoes, having horses unrugged in winter, living in herds, having a natural diet and, in some cases, using forms of complementary medicine such as homeopathy. However, while many of those who participated in this study were happy to use naturalness to describe a kind of utopian ideal for their horses and the way their horse was kept, several respondents questioned the approach on the grounds that domesticated horses are not natural, nor are the ways that humans relate to them.

Amongst owners participating in a study exploring the recognition and management of obesity in horses, there was a dichotomy in terms of ethical frameworks relating to approaches to care [109]. Some owners aimed to keep their horse as 'naturally' as possible, including not riding their horse as part of this return to 'naturalness'. In contrast, other owners focused on protecting their horse from the elements and the risks of injury associated with outdoor living (through, stables, rugs, closed circuit television, individual paddocks).

Adopting a natural approach to caring for animals is not without negative effects. One example relates to the practice of feeding raw meat-based diets to dogs, which has become widespread practice in recent years [137, 138]. Study results have shown

that one of the main reasons that respondents switched to a such a diet are to respect the dog's ancestral carnivorous nature [139-141]. Further, owners perceived that a raw meat diet was a natural and healthier alternative to commercial pet food, even if the actual benefits were unproven [142]. However, animals fed raw food diets may be a potential cause of illness in susceptible people due to shedding of zoonotic pathogenic bacteria and parasites in their faeces and saliva [143]. Morelli et al [142] found that most owners under-estimated the risks (both to human and animal health) posed by the feeding of raw meat-based diets.

2.2.3 Anti-vaccination/vaccine hesitancy

Within the fields of human and veterinary medicine there are concerns about the 'anti-vaccination movement', i.e., carers' (and individuals') decisions to act contrary to clinical advice and not have their child, animal or themselves vaccinated against potentially deadly diseases. Goldberg and Richey [144] highlight that authors have identified many factors that inform negative attitudes toward vaccination, including, religious beliefs (for example, vaccination interferes with God's plan), new Age beliefs (for example, belief in the 'natural healing potential' of the body), and moral convictions (for example, human papillomavirus [HPV] vaccines risk encourage female promiscuity), unwillingness to subject one's children to pain, or a wider conservative anti-intellectualism and distrust of government-funded science.

Whilst using CAM and refusing vaccination are both contrary to conventional clinical advice, where they differ is in terms of effect on societal (or even world) health. Hobson-West [145] explains that the policy of mass immunisation is built on the scientific notion of 'herd immunity'. This idea stresses the need to achieve high vaccination uptake (usually said to be around 95%, although the percentage varies by disease) to ensure that those who cannot be vaccinated for medical reasons or those who do not fully respond to immunisation are still protected, as the overall incidence of disease is reduced in the 'herd'. For this reason, non-uptake is potentially very serious and may threaten not only the individual human or animal that has not been immunised, but also the whole of the respective populations.

2.3 A brief history of barefoot

The consensus, which appears to be based on conclusions published in a book about horseshoes and horseshoeing that was written in 1869 by George Flemming [55], is that the first people to protect the feet of their horses with nailed-on shoes were probably the Celts (750BC to 12BC). The extent to which this practice was controversial at that time is not known. However, the debate around whether horses should be kept shod or shoeless was in full force in Victorian England. Bracy Clark (1771-1860), who was one of the first to receive training from the Veterinary College of London, writes passionately, repeatedly and at length about the harm he considered was caused by shoeing. The following is an illustrative example:

The present system of shoeing, and its consequences, ruin such multitudes of horses, that surely the discovery of its cause, beyond the power of denial, cannot but be of the highest importance in the affairs of mankind; as well also as on account of the sufferings of the animal; for not one in thirty of all that are raised live to see the half of their natural life expended! [Clark 1829, p12 [146]]

George Flemming (whose book was not published until 1869) considered that feral horses did not require shoes but that:

... domestication alters, more or less, the conditions on which the horn depends for its integrity as an efficient protection to the highly sensitive and vascular textures it encloses. [Flemming 1869, p6-7 [55]]

He also observed that:

In eastern countries, where the climate is dry and the earth elastic and soft, and where the equine species is usually wiry and firm in its organization, with dense inflexible hoofs, an armature of any kind is seldom, if ever, required. [Flemming 1869, p7 [55]]

Flemming provides several examples of reports from travellers who mentioned parts of the world (including Afghanistan, Tibet, Indonesia, South Africa, Jamaica, Japan, Sweden, Libya, Arabia, Persia, Senegal and parts of Asia) where horses were not shod. Travellers' reports of whether horses in 19th century Russia were shod were mixed. A Mr Michie, travelling through the Russian Steppes explained that:

Whenever a pony selected from a drove has become footsore from being ridden too long a time, the rider dismounts, a fresh steed is caught from the crowd, and the hoof-worn one is set at large again, to recover as it best may the loss it has sustained. [Flemming 1869, p8 [55]]

However, in contrast, Timkowski's account of his travels indicated that some horses were shod.

While the smith was shoeing our horses, a lama, who kept walking about, and seemed very attentive to what he was doing, suddenly mounted his horse and galloped away. It was afterwards discovered that this priest had stolen one of the smith's tools. [Flemming 1869, p8 [55]]

Harper [147] has summarised material relating to keeping horses barefoot that was published in newspapers between 1878 and the turn of the 20th century. This material shows that, by 1882, discussion relating to keeping horses barefoot could be found in newspapers and periodicals across England, with some people writing in about their barefoot success stories and others writing in to say that it was impossible. There appears to have been a small, articulate, and well-organised network of educated men that was incredibly good at publicising and advocating its cause. Harper considered that this group was marked by an almost evangelical zeal for damning horseshoes as something used by unthinking horse owners. They appeared to be dedicated to proving that horses could, and did, do all the work required of them better without shoes. However, by the turn of the 20th century, leading proponents had died, and the barefoot debate in England appears to have, at least temporarily, died out with them. Outside the UK, the shod versus barefoot debate was also being enacted. Dr Hildrud Strasser (a German veterinary surgeon) draws attention to several, mainly European authors, who raised concerns during the late 19th century and the late 20th century about the harm caused by horseshoes [148].

Yvonne Wetz has put together a summary of some important events relating to the barefoot movement, starting from the late 1970s and ending in 2009 [66]. The emphasis of her magazine article is on events that took place in the United States of America (USA), however, key events from the summary that are of relevance to the barefoot movement in the UK are presented in Table 2.1.

Table 2.1 Key events in the recent history of the barefoot movement

Year	Event
1979	By this date, Dr Hildrud Strasser, a German veterinary surgeon, had developed her barefoot trim and teaching seminars
1982	Jaime Jackson, a farrier in the USA, began exploring barefoot concepts by studying wild horses
1988	Dr Hildrud Strasser's first book about keeping horses barefoot was published (in German)
1992	Jaime Jackson published his first book (<i>The Natural Horse</i> [12])
1996	Dr Hildrud Strasser and Jaime Jackson started to exchange letters (previously they had been working completely independently)
1998	Dr Hildrud Strasser's book, <i>A Lifetime of Soundness</i> [149] became available in English. Within this book, Dr Hildrud Strasser outlined her view that all horses would benefit from being barefoot and posited barefoot as a therapeutic option for the rehabilitation of severe founder and navicular syndrome
1999	Jaime Jackson published the 1 st edition of the <i>Horse Owners Guide to Natural Hoof Care</i> [150]. The book's content is very complimentary about Dr Hildrud Strasser's material
1999	KC La Pierre, a journeyman farrier in the USA, published a paper entitled <i>The Suspension Theory of Hoof Dynamics</i> (unavailable, although the concept is explained in his book, which was published in 2004 [151]). In this paper he gives credit to Jaime Jackson, Dr Hildrud Strasser and Dr Robert Bowker. He also created the International Institute of Applied Equine Podiatry (IAEP)
2000	The first of Dr Hildrud Strasser's hoof care seminar was held in the USA (organised by Jaime Jackson's company)
2001-2002	The American Association of Natural Hoof Care Practitioners (AANHCP) was formed by Jaime Jackson. The AANHCP's Natural Hoof Care practitioner certification program began, and Pete Ramey became one of the clinicians to offer the enrolment clinic for the course
2002	Jaime Jackson's 2 nd Edition of <i>Horse Owners Guide to Natural Hoof Care</i> [150] was published. It included no mention of, or reference to, Dr Hildrud Strasser (they appear to have fallen out in 2001 – Dr Hildrud Strasser considered that Jaime Jackson had used her material for his book [Welz, Spring 2013 [152])
2003	Dr Robert Bowker became more widely known to members of the barefoot movement when details about his research were published in the <i>Journal of Equine Veterinary Science</i> [153]
2004	KC La Pierre published his first hoof care book, <i>The Chosen Road</i> [151]
2006	Pete Ramey, who had been involved with the AANHCP left that organisation, separating from Jaime Jackson
2006	Jaime Jackson published his book, <i>Paddock Paradise, a Guide to Natural Horse Boarding</i> [154]
2009	Liberated Horsemanship (LH), formerly part of the AANHCP, became a separate hoof care educational program under the direction of Dr Bruce Nock
2009	Jaime Jackson set up a new training organisation – Institute for the Study of Natural Horse Care Practices (ISNHCP)

Source: Welz 2013 [66]

In May 2008 Lantra, an independent UK organisation that supports skills, training and workforce development for businesses in the environmental and land-based sector, published a report entitled 'An Investigative Study of Barefoot Trimmers and Equine Dental Technicians' [155]. Lantra commissioned this study to gain a better understanding of their contribution and performance within the equine industry [155]. The collected information was used to inform the development of the Equine Barefoot Care National Occupational Standards (NOS), which were published in 2010 [156]. The purpose of these standards is to accurately describe what a person needs to do, know and understand in your job to carry out your role in a consistent and competent way [156]. The equine barefoot care NOS include standards relating to all aspects of delivering barefoot care, including health and safety issues and the skills required to run a business [156]. The equine barefoot care NOS were developed in consultation with representatives from the barefoot hoof care, farriery, veterinary and welfare professions [157].

2.3.1 Who's who in the UK barefoot world

Proponents of keeping horses barefoot are not one homogenous group. Whilst all proponents consider that keeping a horse barefoot is the ideal, some consider that, in some circumstances, it may be in the horse's best interests to wear shoes. In addition, there are diverse views on what a healthy and balanced hoof looks like and what practices need to be implemented to maximise the health/functionality of horses' feet. The different groups of barefoot proponents operating in the UK can be categorised into three groups: (i) natural and wild horse approaches, (ii) applied equine podiatry and equine podiatry, and (iii) other. Further details about the different groups are provided in the remainder of this section, and summary details of the core beliefs of each group are provided in Appendix B (Box B.1 to Box B.6).

2.3.2 Group (i): natural and wild horse approaches to barefoot

Welz [152] has expressed the view that everyone who is, or was, influential in the barefoot movement has been directly influenced by two individuals, Dr Hildrud Strasser and/or Jamie Jackson. Although there are other proponents of natural and wild horse approaches to keeping horses barefoot, these two individuals were instrumental in starting the US and European 21st century interest in keeping horses barefoot.

The Strasser method

Dr Hildrud Strasser is a German veterinary surgeon who opened a holistic hoof clinic in Germany in 1993 [158]. Strasser's theory is based on the naturalisation of a horse's management (no stalls/stables, herd life and constant free movement), on de-shoeing of shod horses and on a trim devoted to restoring 'normal shape and function' of their hooves [158]. Key details about Strasser's method, extracted from an article published on the Strasser North America website, are provided in Appendix B (Box B.1).

Training to become a Strasser Hoofcare Professional (SHP) takes 2 years and is designed to prepare students to rehabilitate pathological hooves [159]. To retain the title of SHP, graduates must attend a yearly re-certification programme [159].

Natural hoof care

Jaime Jackson, a farrier in the USA, explains that when he was asked to inspect the hooves of a 'mustang mare' who had only been in captivity for a short period he had been so impressed by what he saw that he was inspired to study the hooves of wild horses or, more precisely, feral horses [12]. The difference between feral and wild horses is that feral horses once had domesticated ancestors. A summary of key points identified by Jackson, to explain how trimming the natural way differs from a traditional approach is provided in Appendix B (Box B.2). However, as Pete Ramey (another US farrier and proponent of natural hoof care methods) highlights, natural hoof care encompasses a very broad spectrum of opinions concerning how to interpret and best apply the 'wild horse hoof' model to the domestic horse [160].

UK Natural Hoof Care Professionals

The UK Natural Hoof Care Professionals (UKNHCP) organisation was set up in 2005 to provide training, research and advice to natural hoof care professionals [2]. Members were either farriers who had also trained in natural hoof care or non-farriers who had completed the UKNHCP's training course [2]. This association has been disbanded and the acronym now stands for UK National Horse Care Professionals.

Association for the Advancement of Natural Horse Care Practices and the Institute for the Study of Natural Horse Care Practices

The Association for the Advancement of Natural Horse Care Practices (AANHCP), founded by Jaime Jackson, was one of the first barefoot training organisations [161]. Although some of the trimmers who operate in the UK have received training from this organisation, the AANHCP no longer offers training. Today, the fundamental mission of the AANHCP is to improve the welfare of domesticated equines worldwide through the application of practices learnt from studying free-roaming equines in the USA and to preserve all free-roaming equines on public lands in the USA [162]. The 'Education and Training' link on the AANHCP website [161] leads to the Institute for the Study of Natural Horse Care Practices' (ISNHCP) website [163]. The ISNHCP was also founded by Jaime Jackson and the official ISNHCP trimming guidelines are based on the wild horse research conducted by him during the 1980s in the USA [163]. Today Jaime Jackson's methods are taught by ISNHCP clinicians and field instructors who have been trained by him and are sanctioned by the ISNHCP [163].

Liberated Horsemanship

Liberated Horsemanship (LH) was launched in the USA in 2003 by Dr Bruce Nock [164]. This group's ideal is '*...the form hooves assume under aboriginal lifestyle, terrain and environmental conditions*' [165]. Their approach is holistic, taking into consideration management, how the horse is used and environmental factors [165]. Some trimmers practicing in the UK are members of both LH and the AANHCP [166].

2.3.3 Group (ii): applied equine podiatry and equine podiatry

Applied equine podiatry

The Institute of Applied Equine Podiatry (IAEP) was previously called the International Institute of Applied Equine Podiatry and was founded in 1999 by KC LaPierre, a journeyman farrier in the USA [167]. The IAEP offers three levels of courses [167]. Those who complete the first level of training are awarded a diploma in applied equine podiatry (DAEP) and those who also go on to complete level two training are awarded an advanced diploma (ADAEP) [167]. People who have reached at least DAEP level and who complete the IAEP's continuous professional development requirements, are entitled to pay an annual fee to be members of the IAEP (MIAEPs) [167].

The IAEP runs courses in North America and Europe [167]. Whilst, in the past, UK residents could obtain the DAEP qualification without leaving the UK, the IAEP course calendar has evolved and currently UK residents wishing to receive IAEP training need to travel abroad for most, if not all, courses [167].

KC La Pierre's approach to trimming, as described in his book, *The Chosen Road* [151], is based on his findings from having carried out hundreds of dissections. These findings, he explains, have been confirmed by radiographs and field studies. La Pierre found that sensitive (internal) structures of the foot hold consistent relationships to insensitive (external) hoof structures. His approach involves using these external structures as 'landmarks' to allow the hoof capsule to be balanced to internal foot structures. Key principles of applied equine podiatry are summarised in Appendix B, Box B.3. La Pierre's approach is holistic and, as well as balancing feet, he considers that it is important to manage various environmental factors (including nutrition, housing, exercise, and horse and rider weight) [168]. Not all his views are the same as those articulated by those who support the wild horse model (see Appendix B, Box B.4).

Equine podiatrists

The Equine Podiatry Association (EPA), a UK organisation sometimes referred to as EPA(UK) or EPAUK, was established in 2006 [169]. Members of the EPA refer to themselves as equine podiatrists (EPs) [169]. To become a member of the EPA, an individual must hold a diploma in equine podiatry [169]. Award of this diploma involves successfully passing the training course run by Equine Podiatry Training Ltd (EPT) [170]. All the training delivered by EPT is carried out in the UK [169].

The aims of the EPA are to regulate and support their members (EPs) working in the UK, promoting responsible shoeless hoof care and providing information to anybody wishing to find out more about equine podiatry [169]. Some key beliefs and approaches are summarised in Appendix B, Box B.5 and Box B.6 respectively.

2.3.4 Group (iii): other UK approaches to barefoot

Barehoof Strategy

Another UK trimmer training provider is Barehoof Strategy [171]. Successful completion of this training also results in a diploma. Little information is publicly available about the theories promoted by this school. Training appears to be provided by one individual, Dan Guerra [171], who has received training from the Kentucky Horseshoeing school [171]. Details on the Barehoof Strategy website indicate that he not only trains people so that they can look after their own horses' feet, but he also trains people to become trimmers. Guerra states on his website that '*... to state that I teach a farrier/shoe-trim would be as incorrect as to say I teach a wild horse trim*' [171]. He explains that what he teaches is '*...an in-depth understanding of the*

anatomy and physiology of the horses' hoof [171]. Agnaess, a trimmer who received training from Barehoof Strategy, describes Guerra's method as a gentle non-invasive trim based on the principle that a good trim is mostly about what to leave on to keep the hoof in balance and free from disease, rather than how much to take off [172]. Guerra's approach takes into account how factors including nutrition, environment, common disease and genetics affect the trimmers' strategy [171].

Independents

Individuals with no apparent affiliation to any organisation also offer trimming services. Whilst some have received training from the main trimmer training providers, the training undertaken by others is not always clear [166].

Farriers

Some UK farriers who have qualifications that entitle their names to be included on the FRC register advertise themselves as barefoot trimmers [166].

2.4 Barefoot controversy

2.4.1 Some opinions

During 2003 and 2004, a heated (international) discussion of the subject of keeping horses barefoot was published in the *Journal of Equine Veterinary Science*. One commentator considered that the discussion went '*...beyond healthy discourse on the best way to protect horses' hooves*' and suggested that [173]:

The vehemence reflects a pervasive, underlying uneasiness with the conventional role of farriers as hoof care experts by some members of the equine community. [Balch 2007 [173]]

The discussions reflected opinions rather than an exchange of scientific theories. Teskey considered that there was a perception throughout the equine industry that shod horses received a 'higher level' of care, receiving 'better' nutrition, housing and management than unshod horses [80]. This perception was supported by Miller who considered that horse owners see keeping their horse barefoot as a cheap option [174]. However, Pirasteh, a horse owner who was not a veterinary surgeon, responded to Miller's comment by saying that, for him, money was not the issue, the issue was his belief that a horse's health began with healthy feet [78]. Pirasteh also considered that there were some horse owners, farriers and veterinary surgeons who seemed to have an emotional, intellectual and, economic investment in horseshoes and who rejected Strasser's theories without first giving them due consideration. Miller

made a similar point (although more bluntly) when he suggested that farriers were not objective as eliminating shoeing would mean they would be out of a job [174].

There appeared to be fairly broad support for the view that shoes were a '*necessary evil*' [76] and also the view that shoes would damage some, if not all, horses' feet [78]. Miller considered that some horses must be shod if they were to be used at all, and some horses must be shod if they were to be '*used extensively*' [77]. A recommendation made by farriers and veterinary surgeons was that, if possible, horses should be left without shoes for a couple of months each year to counter some of the undesirable side-effects of shoeing [51, 79, 174].

Jochle [76] stated that some people cited the millennium-long history of shoeing as evidence that horses suffer no ill effects from shoeing. However, Teskey [80] posed the following question:

If shod horses suffer no ill effects from their shoes, as many professionals contend, why are they so lame within minutes when walking a short distance without them? [Teskey 2005 [80]]

Feral horses' hooves as a gold standard

Jochle [76] highlighted that the roles horses play today are far from the demands of the past and much closer to the lifestyle of feral horses. He, therefore, suggested that dispensing with shoeing might be a viable option. However, Miller [174] considered that keeping domesticated horses in environments that were similar to their natural environment was unrealistic.

It has been stated that domesticated horses need hoof care because it is rare for the wear and growth of hooves to be in perfect equilibrium [50]. Pirasteh [78], a polo player and proponent of keeping horses barefoot, described the work that his barefoot horses undertook, explaining that their work included long trail rides and, during the polo season, being trained or playing polo five or six times a week on a highly abrasive surface (blue stone dust). Pirasteh's experience was that when a horse's shoes were first removed the horse initially experienced discomfort but soon became comfortable barefoot.

Other reasons put forward for horses kept in a domestic setting needing shoes were the extra weight of the tack and rider, the harder terrain and being required to undertake extreme sports [80]. Teskey [80] refuted all three of these reasons. First, Teskey highlighted that in the wild the feet of pregnant mares adapted to the

increased weight of the foetus. Second, Teskey pointed out that horses had evolved in varied terrains, including desert conditions where the terrain was hard. Third, in terms of extreme sports, Teskey believed that cavalry warfare may be considered an extreme sport and that, for an extended period of history, unshod cavalry horses were required to carry the additional weight of armour and equipment. The cavalry horse example may not be a robust line of argument. Jochle [76] described how Caesar, in his books about the wars in Gaul, complained repeatedly about the inability of his barefoot cavalry to enter battle decisively because their horses' hooves were sore from the long distances they had had to cover to reach the battlefield. Jochle also highlighted that, of the four waves of horseback invaders who tried to overrun medieval Europe (the Huns [5th century], the Avars [8th and 9th centuries], the Magyars [10th century], and the Mongols [12th and 13th centuries]), only the Huns' horses were truly barefoot; the two last waves used shod horses.

Some people believe that domestic horses need shoes because breeding policies have focused on speed, colour, elegance, gaits and power, rather than on good feet and that the consequence of this is that most domestic horse breeds do not have good feet [78, 174]. Pirasteh [78] refuted this argument on two counts. First, humans have not been bred for good feet either and, Pirasteh suspected, his feet would get very sore if he were to remove his shoes and '*...prance around on a gravel road*'. However, Pirasteh believed that, over time, he would become accustomed to going barefoot on any kind of terrain. Second, Pirasteh claimed that mustangs who had subsequently been domesticated (regularly shod and kept in stalls/stables) quickly developed the same hoof-related issues as domestic horses. Teskey [80] also did not support the line of argument that genetics were key to hoof health. Teskey's opposition was founded on his observations that foals born from 'genetically small-footed' parents with deformed feet had beautiful, appropriately sized, feet when they were trimmed properly from a young age, were allowed adequate movement and were kept barefoot.

2.4.2 UK legal cases

Between 2006 and 2014, four cases were brought against trimmers by the Royal Society for the Prevention of Cruelty to Animals (RSPCA) or the FRC. In 2006, two cases were brought against Strasser Hoofcare Professionals [175], and in 2012 [176] and 2014 [177], cases were brought against individuals who had received initial training from the IAEP and Barefoot Strategy respectively. In three of the cases, the trimmers were found guilty of causing unnecessary suffering. In the fourth case, the

charges related to illegally practising farriery [176]. During this case, the trimmer explained that although he did not consider his actions to be farriery, he did not have the resources to fight the case and, therefore, pleaded guilty [176]. Once the trimmer had pleaded guilty to the charge of illegally practising farriery, the Court decided not to hear oral evidence or make a judgement on the issue of whether harm had been caused to the horse [178].

Whilst it was the trimmers who were prosecuted, the culpability of the horse owners in all these cases is unclear. However, Welz, speaking in a different context about hooves that are in a poor condition, has suggested that:

Responsibility must be accepted by the caretaker of the horse - because it usually took many, many years for those hooves to become deformed and pathological in the first place. [Welz 2006 [159]]

3 Methods

3.1 *My background*

Reflexivity is recognised as a crucial strategy in the process of generating knowledge using qualitative research [179]. All qualitative research is contextual; it occurs within a specific time and place between two or more people [180]. Describing the contextual intersecting relationships between the participants and the researcher, not only increases the credibility of the findings [179] but also deepens the readers' understanding the work [180].

On leaving school with few qualifications, I embarked on a career in the equine industry. First as a working pupil and then as a riding instructor. Over the subsequent ten-year period I was exposed to many different horse-related worlds, including eventing, hunting and stud work; however, I mainly worked in the racing industry (flat and National Hunt). My experience during that period was that it was routine for all horses to be shod once they started being ridden, the exception being small riding school ponies. However, sometimes people delayed getting horses shod in an attempt to save money but, invariably, the horse quickly went lame. In 2005 my sister introduced me to the idea that it was possible to keep horses that were in work barefoot. She had learnt about the possibility from a barefoot horse owner she had met whilst attending a riding clinic. My initial reaction was incredulity and I started to search the Internet to find out more about this practice; however, at that time, there was not a lot of readily available information.

Whilst working with horses I obtained academic qualifications awarded by the Open University. These qualifications enabled me to enrol full-time on a BSc in Mathematics. On completing my undergraduate degree, I went on to do a master's degree in Operational Research (this subject involves using mathematics to help people make better [usually business or policy] decisions). My academic qualifications secured a job at the University of York, where I spent the next ten years carrying out economic-related research and consultancy in the fields of health and social care. After ten years it was time for a change, and I accepted a job at the University of Liverpool where my role involves being part of a team that provides economic advice to the National Institute for Health and Care Excellence (NICE). NICE Appraisal Committee members use our advice to help them make decisions about whether new drugs are cost-effective and, therefore, whether these drugs should be offered to NHS patients. The move to Liverpool was accompanied by funding to undertake a PhD on a part-time basis. I understood that I would have to do

a considerable amount of the work in my own time and, therefore, thought that it would be good to explore a topic area that, from a personal perspective, was of interest to me. Studying what drove owners' decisions to keep their horse barefoot, and how these owners made day-to-day decisions about delivering care to their barefoot horses in the absence of evidence, aligned with a personal interest and also with my day job.

Initial searches of the Internet made me very aware that different groups of barefoot proponents held differing beliefs about the best approach to barefoot care and I wanted to try to ensure that my interpretation of data was balanced. I therefore attended training delivered by the IAEP, the UKNHCP and an independent barefoot proponent, as well as conferences organised by the AEP. To gain an understanding of the barefoot care issues that were important to farriers, I attended an International, 3-day farrier conference (the International Hoof Care Summit); however, over the 3 days, barefoot care was not discussed.

Researchers are labelled as insiders if they are considered to be part of the community within which the research is being conducted, and outsiders if they are not part of that community [179]. There has been a long debate about whether researcher positionality has a positive or negative impact on the findings of research [180, 181]. In the case of my research, I can be considered partly an insider and partly an outsider.

On the one hand, I can be considered as an insider because of my past experience of working with horses. This experience meant that I was familiar with many of the challenges associated with caring for horses and is likely to have helped me establish a rapport with the interviewees. I am also familiar with much of the horse-specific terminology that interviewees used. This may have been helpful as it meant that I did not interrupt interviewees' accounts; however, my familiarity with this terminology also meant that I did not ask participants to describe terms that are commonly used by those who care for horses, meaning that I may have missed opportunities to elicit important data.

On the other hand, I can be considered an outsider. Unlike most of those who participated in my study, I have never been responsible for the daily care of a horse of my own. Further, I come from a background of mainly having worked in medium and large-sized competitive (and commercial) equine establishments where horses that were in work were routinely shod. None of the interviewees enquired about my

background or interest in horses, and because I wanted them to talk freely about their practices and experiences, and because I wanted to avoid initiating any discussion about the rights and wrongs of different approaches to hoof care, this was not information that I volunteered. If they had asked, I would have been happy to respond honestly to their questions.

Whilst I am a quantitative researcher, I do not believe that outputs from quantitative research are more valuable than outputs from qualitative research, or vice versa. I have seen good and bad examples of both types of research and both have an important role to play in informing decisions. For example, in the UK, the process of making national-level decisions about whether newly licenced drugs should be used in the National Health Service involves taking into account numerical data (for example, clinical trial and registry study data), expert opinion and the experiences and views of patients. I am fully aware that, even in the national context, there is often very little reliable numerical data on which to base human health care decisions and, therefore, the absence of robust numeric data to inform barefoot care decisions did not worry me.

This doctoral research was the first opportunity that I have had to undertake a piece of academic qualitative research. It is fair to say that I struggled with the fact that I did not have a pre-defined research question. In addition, analysing data using grounded theory methods did not come naturally to me. It was only following a considerable amount of trial and error that I found an approach to coding that worked for me. Whilst these hurdles were not easy to overcome, the process has proved to be a valuable experience. It has broadened my ideas about what constitutes knowledge and has also provided important insights into barefoot proponents' experiences as they engage with new and varied forms of knowledge to widen their understanding of keeping horses barefoot.

Discussions with experienced researchers at the University of Liverpool played a key role assuring the validity of my work. I had many discussions with my supervisors around the coding of interview transcripts; these discussions were fundamental in helping me to appreciate alternative ways of understanding what the interviewees had told me. In addition, discussions with my supervisors around the validity of versions of the conceptual models helped to confirm the legitimacy of those models. I was also able to get wider feedback on the conceptual models during Annual Progress Review meetings that were held with two veterinary surgeons who had considerable experience of carrying out equine-related research.

Some readers of this thesis may wonder whether I am for or against keeping horses that are in work barefoot. My current opinion is the same as before I started this research, namely that the key driver behind the decision to shoe a horse or to keep that horse barefoot should be the comfort of the horse. I believe that wearing the types of shoes that are currently available does cause a horse harm; however, I have seen many horses whose comfort would almost certainly be improved if shoes were fitted. The experience of carrying out this research has only reinforced my belief that the decision about whether or not to shoe a horse is the responsibility of the owner and should be made on a case-by-case basis. Being conscious of this bias, throughout this research I continually questioned whether the point I was making reflected my view or that of study participants. It has been a privilege to hear research participants' stories and whilst the qualitative strand of my research is necessarily subjective, I hope study participants will feel that their practices and beliefs have been fairly portrayed.

3.2 *The mixed methods approach*

Mixed methods research can be defined as research that involves the integration of quantitative and qualitative methods of data collection and analysis [182]. Quantitative research comprises research studies in which observations are measured and expressed in numerical form, such as in physical dimensions or on rating scales [183]. One of the central goals of quantitative research is to collect repeatable data that can be analysed using statistical methods [184]. Questions addressed via quantitative research often contain phrases such as 'What percentage...?', 'What proportion...?', 'To what extent...?', 'How many...?' and 'How much...?' [184]. In contrast, qualitative research is concerned with illuminating what populations and individuals think, feel or why they act in certain ways [184]. Qualitative research aims to produce richly relevant detailed descriptions and interpretations of people and the social, linguistic, material, and other practices and events that shape and are shaped by them [185]. It typically includes, but is not limited to, discerning the perspectives of the people who are being studied [185]. Qualitative methods are particularly well suited to the exploration of poorly understood or ill-defined topics [186].

The use of quantitative and qualitative methods in the social sciences appears to date back to 19th and early 20th century [187]. Some mixed methods researchers argue in favour of pragmatism as a paradigm for this field [188]. Pragmatism originated as a philosophy in the United States in the late nineteenth century from the work of William

James (1842-1910), John Dewey (1859-1952), Charles Sanders Peirce (1839-1914) and Herbert Mead (1863-1931) [188]. The pragmatist's motivation is to find out 'what works' [189]. The pragmatic approach combines positivistic and interpretative approaches. In positivism, the aim is to use deductive reasoning where the objective of the researcher is to confirm an often well-established theory employing primary data analysis [190]. At the other extreme is the interpretive approach which often draws upon inductive reasoning where the objective is to develop theory [190]. The pragmatic approach uses abductive reasoning, a process of moving between induction and deduction and thereby converting observations into theories and then assessing those theories through action [191].

The precise nature of mixed methods research depends on the purposes for which the quantitative and qualitative methods are used. I wanted to understand why people chose to become trimmers, why people chose to keep their horse barefoot, and what these practices meant to these people. As qualitative research is particularly well suited to studying context and also excels at illuminating process, including individual decision-making [192], this type of approach was an ideal way to start my research. I also wanted to understand how common the practices and beliefs revealed during the interviews were in larger populations of trimmers and horse owners; this required quantitative research, specifically, questionnaires. The questions asked in the trimmer and horse owner questionnaires were, therefore, based directly on the findings from the qualitative element of my research.

In summary, my research comprised two linked strands. First, I collected qualitative data from trimmers and barefoot horse owners via interviews. I analysed these data using grounded theory methods to develop a conceptual model and to inform the development of two surveys (one targeted at trimmers and the other at barefoot horse owners). The study plan received approval from the University of Liverpool Veterinary Research Ethics Committee (Ref: VREC293). A copy of the approval letter is provided in Appendix C.1. Detailed explanations of choice, and a description, of qualitative and quantitative methods are provided in Sections 3.3 and 3.4 respectively.

3.3 The qualitative research strand

3.3.1 Choice of the qualitative data collection method

Qualitative data can be categorised into verbal data (for example, interviews and focus groups), ethnographic approaches (for example, observation and ethnography) and material data (for example, documents and images) [193]. I decided against

observation as this would involve immersion in the everyday lives of participants and the practicalities of undertaking this type of fieldwork whilst also employed as a full-time researcher seemed unachievable. I decided against a structured collection and analysis of documents as my preliminary searches for published material had suggested that there was only a small quantity of material to study (see Chapter 2). The most appropriate method to access the views and experiences of members of the barefoot community seemed to me to be to talk to people. I chose to use interviews because this approach has the advantage that it works well when the purpose is to learn about people's beliefs, perspectives and meaning-making [194]. I chose to use one-to-one interviews carried out in an environment of the interviewees' choice. Given the diversity of (strong) opinions about keeping horses barefoot (see Chapter 2), I felt this was the best way to maximise the likelihood that interviewees would feel able to talk freely to me.

3.3.2 Qualitative data collection

3.3.2.1 Recruitment of trimmer interviewees

The aim was to interview trimmers who were members (or had been members) of trimming organisations that had (or had had) more than one UK member. The organisations identified via internet searches, were AANHCP, UKNHCP, Barehoof strategy, EPA, IAEP and ESA.

As keeping horses barefoot is an area where there has been very little previous research, the identification of appropriate individuals was necessarily pragmatic. In effect, a 'snowballing', approach was employed. Initially, individuals who were known to members of the research team, albeit, in some cases, very tentatively, were contacted (n=6). This approach proved largely successful and led to the recruitment of five of the interview participants. The other interviewee was recruited as a result of a recommendation made by one of the initial interviewees.

Interview invitations were also emailed to five other potential interviewees (with whom there were no personal connections, either with members of the research team or trimmers who had already been interviewed). However, none of these individuals responded to the invitation. The rich nature of the material collected during the interviews that had been completed, combined with the lack of response from the five potential interviewees, led to the decision to stop the interview recruitment process (i.e., to only interview six trimmers).

3.3.2.2 Recruitment of horse owner interviewees

The approach to recruiting horse owner participants was also pragmatic. Four horse owner interviewees were recruited via their trimmers. The trimmers sent their clients an invitation letter and project information sheet. The other interviewee had played a role in one trimmer's decision to explore keeping horses barefoot and was named a couple of times during the trimmer interview. I found that individual's contact details on the Internet and emailed her an invitation letter and project information sheet. In total, five horse owners were interviewed.

3.3.2.3 Interview documentation

Potential interviewees were emailed a letter inviting them to participate in the study (see Appendix C.2). Minor adjustments were made to this letter depending on whether the recipient was a trimmer or a horse owner. The letter described the purpose and objectives of the study and what the interviewee, as a voluntary participant, could expect. A study information sheet was attached to the invitation email. A copy of the trimmer study information sheet can be found in Appendix C.3 and a copy of the horse owner information sheet can be found in Appendix C.4. The information sheet provided further details about the study as well as information about the decision to take part, how collected information would be used and the right of the interviewee to withdraw from the study at any time. Emails were exchanged to arrange a time to talk that was convenient for both of us and to decide whether the interview should be carried out face-to-face (at a location that was convenient for the interviewee) or via telephone. All interviewees were sent a copy of the consent form (see Appendix C.5) as an attachment to the email that confirmed the date and time of their interview.

3.3.2.4 Interview process

I carried out all interviews. At the start of each interview the interviewees were asked whether they had read the information sheet and whether they had any questions about the process or the study. The process used for the face-to-face interviews was that once any questions had been addressed, the interviewees were asked to sign the participant consent form. They were then reminded that the interviews would be recorded, were reassured that their responses would be kept confidential and it was explained that they were under no pressure to talk about anything that they did not wish to discuss. Recording then commenced. The process for the telephone interviews was identical except that if interviewees had not already returned a

completed consent form, they were asked to state for the tape that they had read the consent form and remained happy to participate.

The interviews were semi-structured in format and covered the areas set out in the study information sheets. Questions were used to clarify interviewee responses, for example, to confirm the brand of hoof boots used. In addition, further questions were used to encourage owners to expand on their initial responses so that I could get a fuller understanding of why practices were employed, or certain beliefs were held. Care was taken to ensure that these questions were neutral and did not lead the discussion. At the end of the interview, the interviewees were asked if they wished to make any further comments and whether they had any questions. A copy of the interview guide is provided in Appendix C.6 and the proposed procedure for dealing with any distress arising during interviews is provided in Appendix C.7.

Four trimmer interviews were carried out face-to-face and two were telephone interviews. The face-to-face interviews were carried out in different types of location. Two were carried out in home environments, one was carried out in a café and the other was carried out in a University of Liverpool office. In qualitative research, telephone interviews are often depicted as a less attractive alternative to face-to-face interviews [195]. Novick explored the use of, and apparent bias against, telephone interviews in qualitative research and found that there was a view that the absence of visual cues resulted in loss of contextual and non-verbal data and compromised rapport, probing and interpretation of responses [195]. However, Novick, also found that telephone interviews could allow respondents to feel relaxed and able to disclose sensitive information, and evidence was lacking that they produced lower quality data [195]. Trimmers who were interviewed face-to-face may have been more expansive than those interviewed by phone (face-to-face interview durations ranged from 1.5 hours to 4.0 hours), nevertheless, those interviewed over the phone still provided rich data (phone interview durations ranged from 1 hour to 1.5 hours).

One horse owner was interviewed face-to-face (in their home) and all other horse owners were interviewed over the telephone. Horse owner interviews were shorter than the trimmer interviews. The face-to-face interview lasted just over an hour and the phone interviews lasted between 20 and 30 minutes. Although some interviewed horse owners currently, or previously, had owned more than one barefoot horse, their focus was very much on their current horse. In contrast, trimmers took a much broader perspective when they discussed keeping horses barefoot.

3.3.2.5 Piloting

The first interview, which was with a trimmer, was conducted as a pilot, to test whether the core questions generated sufficient relevant data. The transcript of this interview was reviewed in detail by me and a supervisor experienced in qualitative research (ESP). Following a detailed examination of the interview transcript, it was agreed that, due to the rich nature of the data elicited during the pilot, these data should be included in the overall analysis.

3.3.3 Qualitative data analysis

Many different strategies can be used to analyse interview data. Three qualitative approaches used in health research were considered, namely phenomenology, discourse analysis and grounded theory. The goal of phenomenology is to discover how people make meaning of their lived experience (in contrast to abstract interpretations of experience or opinions about them) [196]. In contrast, discourse analysts study how language is used to accomplish personal, social, and political projects, and grounded theorists develop explanatory theories of basic social processes studied in context [196]. I wanted to use a method that enabled me to understand not just what people believed about keeping horses barefoot but what had led them to this set of beliefs. A grounded theory approach offered an analysis framework that allowed such an understanding without the need for any prior detailed knowledge of what this set of beliefs might include.

Using a grounded theory approach to analyse data was possible despite the fact that the approach used to collect data was not completely aligned with grounded theory methods. Interviewees were selected to represent people with different experiences and understandings of keeping their horse barefoot to allow the exploration of multiple dimensions of the social processes [196], which is in line with grounded theory methods. However, in contrast to grounded theory methods all the data were collected prior to any analysis; a grounded theory approach would have involved parallel data collection and analysis with data collection only ceasing when theoretical saturation had been reached (i.e., the point where the complete range of constructs that make up the theory is fully represented by the data) [196]. The difficulties I experienced with recruitment meant that this approach was not possible. However, the approach I took had the advantage that the questions I asked to encourage interviewees to add details to clarify were not leading; they were not influenced by embryonic (or more advanced) ideas that I may have developed about theory.

3.3.3.1 *A grounded theory approach to qualitative analysis*

Use of a grounded theory method of analysis facilitates the philosophical approach suggested by Blumer, namely that there are three key principles: i) individuals act towards others based on the meanings they have given to those people, ii) language gives humans a means by which to negotiate meaning through symbols and iii) thought modifies each individual's interpretation of symbols [197].

In 1967, Glaser and Strauss defined grounded theory as the discovery of theory from data [198]. The approach marries two contrasting (and competing) sociology traditions, namely Columbia University positivism and 'Chicago School' pragmatism [199]. Glaser had undertaken quantitative training at Columbia University whilst Strauss was a member of the 'Chicago School' [199]. Definitions of the term Chicago School vary; however, the major works associated with this term were produced between the end of World War 1 and the early 1930s, and its key scholars were faculty and students at the University of Chicago's Department of Sociology [200].

The version of grounded theory originally advanced by Glaser and Strauss [198] supported the existence of an objective truth and reality waiting to be discovered through narrative accounts of the meanings people give to their experience and behaviour [201]. This was supported by the expectations articulated by Glaser and Strauss of the outcomes of a grounded theory, which are:

- to enable prediction and explanation of behaviour
- to contribute to theoretical advance in sociology
- to produce practical applications – prediction and explanation should be able to give the practitioner understanding and some control over situations
- to provide a perspective on behaviour – a stance to be taken toward data
- to guide and provide a style for research on particular areas of behaviour [198].

A very public disagreement between Glaser and Strauss occurred on the publication of Strauss and Corbin's book, *Basics of Qualitative Research and Grounded Theory in Practice* [202], in 1990 [203]. This book was written in response to their students' requests for a 'how to' manual of grounded theory and, Urquhart explains, Glaser's view was that this formulation was too restrictive and these restrictions might strangle any emergent conceptualisations and force concepts into a preconceived mould [203]. Over time, researchers have used grounded theory in different ways, defining and redefining different aspects of it [204]. Most notably, Charmaz [199], has explicitly introduced social constructionism into grounded theory, rejecting the existence of an

objective truth in favour of a world comprising multiple individual realities influenced by contextual setting.

The social constructionist perspective is concerned with how social structure and cultural contexts shape an individual's view of the world [204]. The fundamental tenets of social constructionism have been traced back to the work of the 18th-century Italian political philosopher, rhetorician, historian, and jurist Giambattista Vico [205]. In more recent history, a landmark publication was Berger and Luckmann's book, *The Social Construction of Reality*, which was published in 1966 [206]. Berger and Luckmann give credit to Max Scheler, who created the idea of the sociology of knowledge which influenced social constructionism theory [206].

Since the late 1960s numerous disciplines have adopted and adapted social constructionism [207] and there is now no single description [208]. Burr [208] suggests that it is possible to consider that a social constructionist approach is one that accepts one or more of four key tenets described by Gergen [209]. The first tenet is that a critical stance should be assumed towards 'taken for granted' knowledge. This has been demonstrated to be a useful approach. Several studies have shown that concepts that were once believed to have been determined by fixed natural or metaphysical laws (and, therefore, socio-historically invariant) are culturally or historically specific [210]. Studied examples of such concepts that have relevance to the way that people perceive or care for horses include beauty, mortality and pathology. Linked to this is the second tenet that knowledge is historically and culturally specific. This assumption holds for at least some aspects of horse care. For example, published questionnaire results suggest that the proportion of horses in the UK fed dietary supplements has increased over time from 12% in 1999 [69] to between 79.3% (summer) and 91.0% (winter) during the period 2009-2011 [211]. An example of cultural differences relates to the practice of rugging horses. The dominant view of members of the traveller community who participated in a study relating to attitudes to horse care and welfare was that horses should only wear rugs in exceptional circumstances [212]. In contrast, amongst UK leisure horse owners, rugging horses, at least during some of the year, was commonplace and perceived as a social norm [213]. The third tenet is that knowledge is sustained by social processes, meaning that it is through daily interactions between people during the course of social life that versions of knowledge become fabricated. Therefore, social interactions of all kinds (including communication, negotiation, conflict, rhetoric) are of great interest to social constructionists. Within the horse owner community, social

interactions and social influence have, for example, been studied within livery yard settings [42, 214]. The fourth tenet is that knowledge and social action are interconnected, i.e., that social dealings can produce a variety of possible social constructions of events, but each different construction also brings with it, or invites, a different type of action from people. For example, Gergen [209] suggests that people have different responses to others' depression, anxiety, or fear depending on whether they perceive these to be involuntary emotions or ones that have been chosen, selected, or played out on a stage. So that, for example, if a horse showed signs of anxiety when being rugged, the carer might treat that horse differently depending on whether they believed that this response was due to true or fabricated anxiety.

The examples cited in the previous paragraph show how the tenets described by Gergen [209] have been (or might be) used to study facets of equine care suggested to me that social constructionism was an appropriate lens through which to study keeping horses barefoot. This view was supported further by the fact that an examination of the practice of keeping horses barefoot challenges conventional knowledge that horses that are in work need to be shod.

3.3.4 Qualitative data analysis and theory development methods

Grounded theory, in its various guises, is one of the most widely used and well-described methods used in social science research. It offers a set of procedures and analytic tools with which to order, organise and interpret the narrative data collected through interviews with respondents. It is now common for researchers to use those aspects of grounded theory that meet their needs [215]. The researcher is encouraged to select a method that '*...best suits their cognitive style and develop analytic skills through doing research*' [215]. It remains, however, of utmost importance that the researcher makes clear what they have done and how they have done it. Glaser, recognising the ways that grounded theory has been used in research, suggests that:

...when used in part, it is 'adopt and adapt', with other research methods woven in, based on the training and judgment of the researcher involved. [Glaser 1999 [216]]

Glaser goes on to express his view that the use of grounded theory should be viewed as developmental [216].

Approaches to analysing data suggested by leading proponents of grounded theory vary. For example, Glaser emphasises the importance of openness and creativity, whilst Strauss and Corbin advocate that rigorous and prescriptive routines should be employed [217]. Cho highlights that Glaser has criticised Corbin's approach as one that forces data and is too prescriptive, whilst Glaser's approach has been criticised as being too open and difficult for novice researchers to employ [218]. Irrespective of approach, elements that are common to all methods are (i) coding, (ii) the constant comparative method, (iii) categorising and category saturation, and (iv) theoretical sensitivity [217]. When analysing the data I drew heavily on the practical advice and suggestions provided by Urquart [219] (Section 3.3.4.1 to Section 3.3.4.3).

3.3.4.1 *Open and selective coding*

All respondent interviews were transcribed verbatim. The coding process started with data familiarisation, which was achieved by reading each transcript several times. Coding was based on a line-by-line reading of each transcript. I attached labels to particular data extracts according to meaning, action or key issue. I wrote coding labels in the margins of the transcript document and linked them to my field notes and diary extracts, thereby supplementing the ongoing data analysis process. Words or sentences were labelled using concepts or sometimes in vivo codes (i.e., assigning a label to a section of an interview transcript using a word or short phrase taken from that section). An example of initial coding on paper is provided in Appendix C.8. This process was time-consuming and involved multiple readings of each transcript as well as comparisons of codes across transcripts. A key component of grounded theory is constant comparative analysis - the process of simultaneously identifying similarities and differences in the data relative to incidents and concepts already established in the process of analysis [220]. This first stage of coding was the basis for sorting and organising the data into higher-order categories and concepts. Initially, the codes extracted from the data were divergent and indistinct. They stood alone as unconnected statements and conceptual labels. At this stage no codes were discarded or considered to be unimportant. As more participants were included and interviewed, the number of codes generated grew rapidly and the process of linking codes into conceptual categories began to run as a simultaneous activity. Codes were continually compared and allocated to emerging categories, with different data being added to newly created categories.

As coding progressed, some codes became categories whilst other codes became dimensions of these categories. For example, open codes of attracting new clients and client selection ended up as dimensions of managing client list. Glaser and Strauss [198] describe categories as conceptual elements of the theory. They allow the properties and dimensions within each concept to be clearly defined and understood and they are designed to reflect the context and conditions of the phenomenon under investigation [198].

3.3.4.2 Integrative diagrams: theory building

Theory development brings together the relationships between the codes and categories and uses the researcher's insights, interpretations and understandings to define the nature of these relationships [198]. The goal was to develop a flexible, multi-dimensional set of connected statements containing a broad range of variables and contingent factors such as conditions, consequences, processes, patterns and systems [198]. The relationships suggested by Spradley [221] provided a starting point for thinking about connections between codes and categories (see Box 3.1). However, the links evolved into connections that were subtly different and, therefore, of more relevance to my research. For example, whilst developing connections that explained trimmers' reputation 'helps ensure the success of' and 'increases need for' were helpful. There were many versions of these diagrams with each building on the previous version through a process of testing and questioning (examples can be found in Appendix C.9 [Figure C.1 and Figure C.2]).

Box 3.1 Spradley's semantic relationships (used as a starting point for thinking about relationships between codes and categories)

- Is a kind of
- Is a part of/a place in
- Is a way to
- Is used for
- Is a reason for, is a stage of
- Is a result/cause of, is a place for
- Is a characteristic of

Source: Spradley 1979 [221]

3.3.4.3 Memos

Alongside the analysis of the data, I maintained memos to record the ideas that were prompted during the coding of the data. Memo writing is essential to grounded theory methodological practices and principles as it is the fundamental process of researcher/data engagement that results in a 'grounded' theory [222]. It is through sorting, analysing and coding patterns emerge [222]. As a part-time research student,

this activity was particularly important as it helped to ensure that my ideas were not lost during periods when it was not possible to undertake any analysis.

3.4 Quantitative research strand

Quantitative data were collected using two questionnaires. These were predominantly designed to collect quantitative data but also included some free-text boxes.

3.4.1 Quantitative data collection

Two questionnaires were developed to collect data from trimmers and owners of barefoot horse(s) living in the UK. The term 'owner' included anyone who had financial responsibility for the care of a barefoot horse. So, for example, this might include somebody who had a horse on loan.

3.4.1.1 Questionnaire content

The questionnaires were designed to quantify key practices and beliefs that were identified during the interviews with trimmers and horse owners. In addition, questions were designed to elicit demographic data (human and equine) and, within the horse owner questionnaire, information relating to the role of the horse and the purpose for which the horse was kept.

3.4.1.2 Questionnaire design

The questions included in the questionnaires were constructed to elicit four different types of response. Questions with 'Yes' or 'No' answers were used when such an answer was sufficient and to filter out responders for whom a follow-on question (or questions) were not relevant. For example, respondents who had not asked for their horse's blood to be tested during the preceding 12 months were able to skip questions about why they had requested the test and the results from the test. Likert scales [223] were widely used to gain an idea of the strength of a view, or the frequency of an activity. Other questions required the respondent to tick all of the statements with which they agreed, or the ones that best represented their views. Open-ended questions were used to allow respondents to expand on previous responses or to provide general views or advice. The final element of both questionnaires was a text box that respondents were invited to use to provide any other information (about owning a barefoot horse or being a trimmer) that had not been collected via the questionnaire.

The questions were grouped by topic area (see Table 3.1 and Table 3.2). Copies of the trimmer and horse owner questionnaires can be found in Appendix C.10 and Appendix C.11 respectively.

Table 3.1 Trimmer questionnaire topic areas

Topic area	Questions
Training	Details about initial training and any professional development undertaken during the previous 12 months
Respondent business	Legal status, marketing, length of time practising as a trimmer, number of clients, charges, product sales
New/potential clients	Checks that might be carried out before taking on a new client
Existing clients	Types of owner, reasons for choosing to stop working with an owner
About being a trimmer	Distances travelled, days worked, number of trims per day worked, time taken to carry out a trim, activities undertaken during a visit, owner involvement
Respondent views	Opinions about some 'barefoot beliefs', including beliefs about climate, breed, diet, shoeing, boots. Also, recommendations about products to fight hoof/foot infections
More views	Open-ended questions – best and worst things about being a trimmer, how you would like to see your trimming business develop and advice you would give someone considering becoming a trimmer
Demographic information	Gender, age, location, highest general educational qualification, highest equine-specific qualification
Any other information	Free-text box

Table 3.2 Horse owner questionnaire topic areas

Topic area	Questions
Your horse(s)	Number of horses owned, and number shod (including reason(s) for shoeing)
About the survey barefoot horse	Age, sex, size, breed
Going barefoot	Length of time barefoot, reason(s) why decided to keep horse barefoot, circumstance(s) that might lead you to have your barefoot horse shod
Trimmers and trimming	Trimming undertaken by the owner, employed trimmer's qualification(s), finding current trimmer, frequency of trimming, owner presence during an appointment, length of appointment, how owner rates service provided by trimmer
Feeding horse	Monitoring of weight, details about hard feed, forage and forage analysis, supplements and blood analysis
Treating foot infections	Foot soaking and products (in use, previously used, would/wouldn't recommend)
Where the horse is kept	Type of yard, indoors/outdoors, soil analysis, grass intake/movement management strategies, pasture management, bedding
Horse's workload	Impact (if any) of being barefoot on workload, level of involvement in competitions and other events or activities
Hoof boots	Use of boots (past or present) and views about using them
Barefoot views	Opinions about some of the statements about keeping a horse barefoot, advice to someone thinking of keeping a horse barefoot
Human-horse relationship	Questions about the role of the horse and the purpose for which s/he is kept
Horse owner demographic information	Gender, age, location, highest general educational qualification, highest equine-specific qualification
Any other information	Free-text box

3.4.1.3 Methods used to promote awareness of the questionnaires

Trimmers with a listing on at least one of 10 websites (see Appendix C.12) were emailed an invitation to complete the survey. The invitation (see Appendix C.13) included a request to circulate the link to owners of barefoot horses who they thought might be willing to complete the survey. Advertisements, including links to both the trimmer and horse owner surveys (see Appendix C.14) were also posted on the following four Facebook pages:

- Barefoot approach to whole horse health (4435 members [08 February 2018])
- Barefoot for working horses (925 members [08 February 2018])
- The right to trim (1913 members [08 February 2018])
- The Philip Leverhulme Equine Hospital, University of Liverpool (3395 followers [08 February 2018]).

3.4.1.4 Facilitating completion of the questionnaire

Completion was facilitated through ensuring that questions were easy to understand and straightforward to answer. To help ensure this, the process of developing the questionnaires included a piloting phase. Due to the relatively small size of the trimmer population, a decision was made to limit the number involved in piloting to two trimmers and a supervisor (DCA) who had not previously been involved in the questionnaire design process. The individuals involved in the pilot phase were selected as their interest in my research meant that I was confident that they would provide detailed and considered feedback on the draft version of the trimmer questionnaire. During the piloting phase, the horse owner questionnaire was sent to 10 owners of barefoot horses known to either myself or one of my supervisors. Once all the feedback had been received, I met with my supervisors to consider all the comments. Final versions of the questionnaires were then constructed.

Whilst every effort was taken to ensure that the questions were clear, I recognised that sometimes potential respondents might be deterred from completing a questionnaire due to uncertainty about how to answer a particular question. To address this possibility, a project-specific e-mail address was included in all documents advertising the questionnaire so that any queries regarding the questionnaire could be addressed.

Open-ended questions were kept to a minimum to make it as easy as possible for respondents to answer questions and also to reduce the likelihood of responder fatigue [224]. The surveys were open for access by respondents for 1 month. Once completion had started, the survey remained open for completion for 14 days, during which the respondent could return and update and/or finish completing it (i.e., surveys were accessible online for a total period of 6 weeks). Reminder emails were sent to the trimmers 2 weeks after the initial invitation was sent out and, similarly, reminder emails were posted on the horse owner Facebook sites.

The questionnaires were constructed using the SurveyNet software and could only be completed online. The SurveyNet software automatically stores questionnaire responses into .csv files. The .csv files were downloaded to Microsoft (MS) Excel before data cleaning and analysis.

3.4.2 Quantitative data analysis methods

3.4.2.1 Data cleaning

To facilitate analyses, the following steps were taken:

- Where trimmer respondents provided details about training in days rather than (the requested) hours it was assumed that a training day lasted 8 hours as that seemed to be the assumption behind some respondents' estimates. Reducing the assumed length of a training day to 6 hours made no difference to conclusions.
- A horse owner was deemed to be a non-UK resident if they did not complete the question about where they lived or they mentioned that they lived abroad in a free-text box. Data provided by non-UK residents were not analysed.
- A horse owner was deemed to employ a farrier rather than a trimmer if it was indicated that the person who trimmed their horses' hooves had qualifications awarded by the Worshipful Company of Farriers (WCF) or they referred to the person who trimmed their horse's hooves as a farrier in any of the free-text boxes, unless they specified that they employed a non-UK based farrier (in which case the response was omitted from analyses as it was assumed that they lived outside of the UK).

3.4.2.2 Data analyses

All data analyses were conducted using Microsoft Excel. Initially, descriptive statistics (frequencies) were produced from the trimmer and horse owner survey responses. Averages are reported as means, and when the range of responses was wide, medians are also reported in case the mean was heavily skewed by outliers. Subsequently, the horse owner responses were categorised into the three horse owner typology groups described in Box 3.2. Full details of the method used to assign horse owners to these groups are described in Appendix C.15. Differences between horse owner typology groups were assessed using the Chi-Square test. A p-value of <0.05 was considered to indicate that a difference was statistically significant.

Box 3.2 Horse owner typology groups

Committed barefooters: All horses currently owned are kept barefoot AND the 'questionnaire horse' has been barefoot for the duration of current ownership AND respondent cannot think of any circumstances that might lead to them having their survey horse shod.

New barefooters: All horses currently owned are kept barefoot AND the 'questionnaire horse'* has changed from being shod to barefoot whilst under current ownership.

Intermittent barefooters: Although the 'questionnaire horse'* is barefoot one or more horses currently owned wears shoes, survey horse might wear shoes for periods of the year, or the respondent could think of circumstances that might lead them to have their 'survey horse' shod.

* Horse owners who owned more than one barefoot horse were asked, when responding to questions that might vary depending on which horse they were thinking about, to respond in relation to their barefoot horse whose name was at the top of an alphabetically ordered list of the names of all their barefoot horses

Information provided in free-text boxes was used to support the argument presented in this thesis by providing illustrative examples of practices and beliefs.

3.5 Notes relating to the presentation of results

3.5.1 Quotes

For identification purposes, the interviewed trimmers were assigned a number from one to six and the pre-fix T. Similarly, the interviewed horse owners were assigned a number from one to five and the prefix 'HO'. The letter 'L' proceeds the line number reference that can be used to locate a quote within an interview transcript. For example, '[T6, L1020-1023]' after a quote relates to information provided by trimmer T6 on lines 1020-1023 of their interview transcript.

The data sets provided by each trimmer questionnaire respondent were assigned a number from 1 to 58. Quotations extracted from free-text boxes are preceded by 'QR_'. For example, QR_T2 relates to a free-text comment made by trimmer questionnaire respondent number 2.

Similarly, the data sets provided by each horse owner questionnaire respondents were assigned a number from 1 to 681. The numbers were assigned before respondents were categorised into different horse owner typology groups. Quotes extracted from free-text boxes are preceded by 'QR_'. For example, '[QR_HO401]' relates to a free text comment made by horse owner questionnaire respondent 401.

3.5.2 Questionnaire horse

I recognised that, for people who owned more than one horse, responses to some of the questions included in the horse owner questionnaire might vary depending on which horse they were thinking about. Respondents were, therefore, asked that when responding to these questions they responded in relation to their barefoot horse whose name was at the top of an alphabetically ordered list of the names of all their barefoot horses. Within my results Chapters, this horse has been termed the owner's 'questionnaire horse'.

3.5.3 Trimmer/farrier

I recognised that some horse owners employ individuals qualified as farriers to trim their horses' feet and others employ trimmers. In my results Chapters, when presenting horse owner questionnaire results, all individuals who trim horses' feet have been referred to as trimmers, unless differentiation was needed to describe horse owners' practices or experience.

3.5.4 Additional notes

To preserve anonymity, all trimmers and horse owners who participated in my research are referred to as 'she' irrespective of their gender.

Not all questionnaire respondents answered all questions. When presenting questionnaire results, the number answering each question has been reported and proportions have been calculated based on that number.

4 Introductory research results

4.1 Overview

This Chapter includes information about the trimmers and horse owners who participated in my research. Specifically, descriptive information about those who were interviewed and those who completed the trimmer and horse owner questionnaires. Details about the trimmers and their businesses are presented in Section 4.2, and information about the horse owners is presented in Section 4.3. This information is followed by an overview of the conceptual model that was developed to explain becoming and being a trimmer (Section 4.4).

4.2 Information about the trimmers who participated in my research

4.2.1 Trimmer interviewee characteristics

Six trimmers were interviewed. Two trimmers had been members of the UKNHCP (an organisation that is now disbanded), two were members of EPA, and two were members of the IAEP. Five of the interviewed trimmers were female and one was a male. Four of the trimmers had established trimming businesses, one was just starting to build a business and one was in the process of reducing the size of her business. Three of the trimmers worked predominantly in the South West, one in the Home Counties, one in the Midlands and one in the North of England. Three of the trimmers also worked internationally.

4.2.2 Trimmer questionnaire respondent characteristics

In total, 44 trimmers provided responses that could be analysed; however, not all respondents provided responses to all questions.

Approximately two-thirds (65.4%, 17/26) of the trimmer questionnaire respondents were female. Almost all (88.5%, 23/26) were aged between 31 and 60 years, with the highest proportion (approximately a third [34.6%, 9/26]) aged between 41 and 50 years. Further details about the trimmer questionnaire respondents' ages are provided in Figure 4.1.

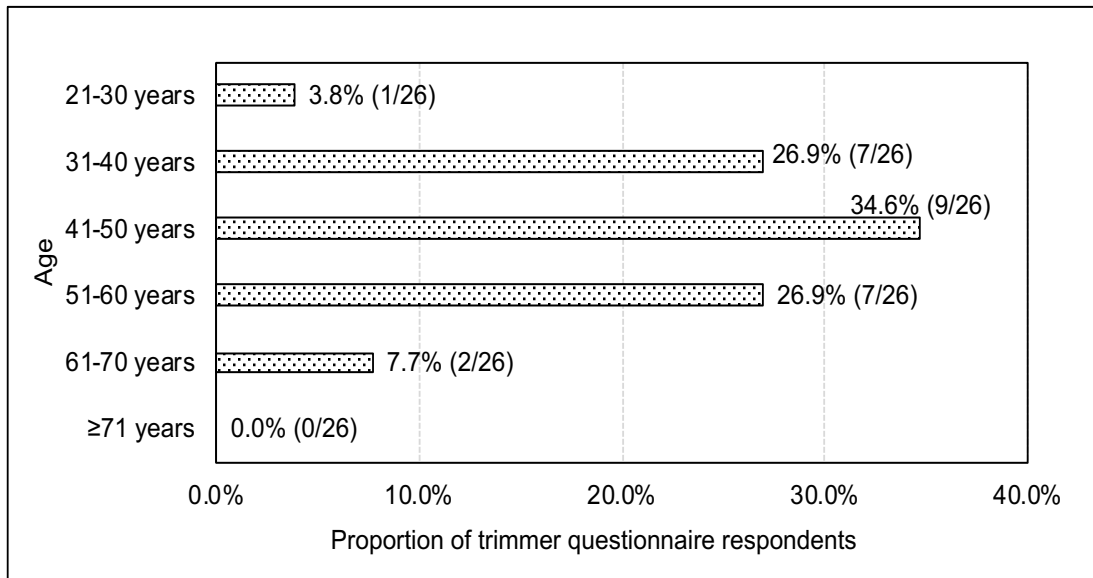


Figure 4.1 Age of trimmer questionnaire respondents (n=26)

Just under three-quarters (72.0%, 18/25) of the trimmer questionnaire respondents lived in England, and over half (55.6%, 10/18) of those who lived in England lived in the South West of the country. Just under a fifth (20.0%, 5/25) of respondents lived in Wales and under a tenth (8.0%, 2/25) lived in Scotland. There were no responses from any trimmers who lived in Northern Ireland. Further details about where the trimmer questionnaire respondents lived are provided in Figure 4.2.

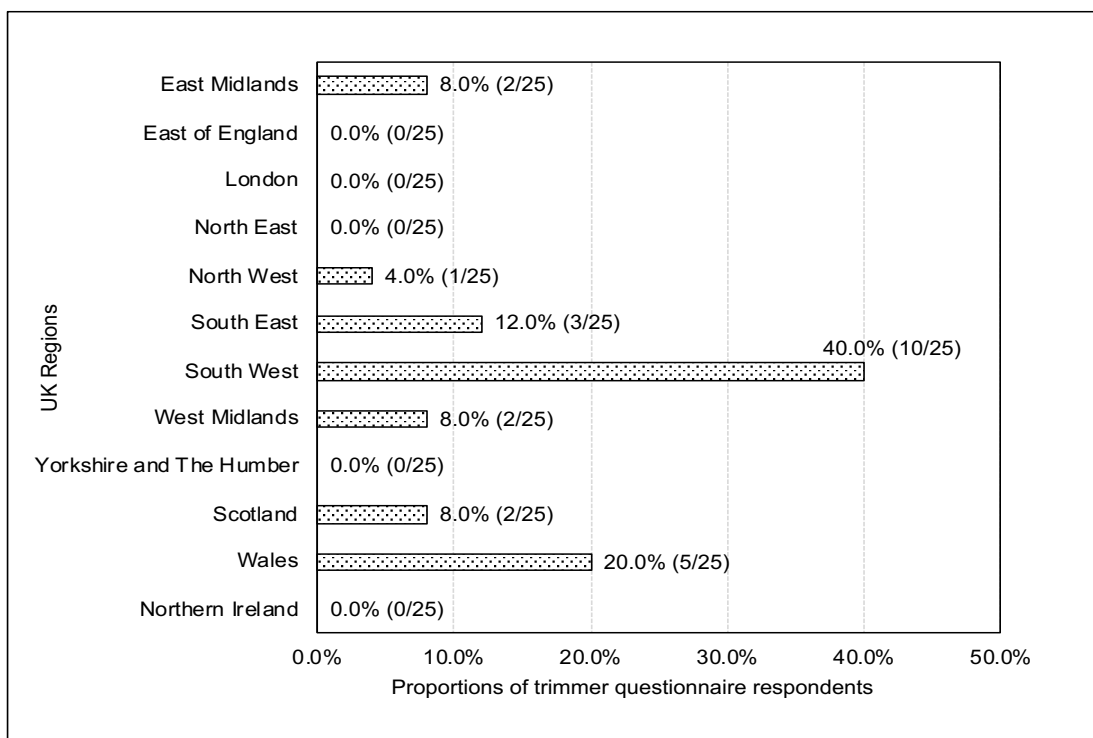


Figure 4.2 Geographical region where trimmer questionnaire respondents lived (n=25)

Over half (57.7%, 15/26) of the trimmer questionnaire respondents were university educated, and nearly three-quarters (73.3%, 11/15) of these individuals held a postgraduate qualification. Further details about the trimmer questionnaire respondents' highest general education qualification are provided in Figure 4.3.

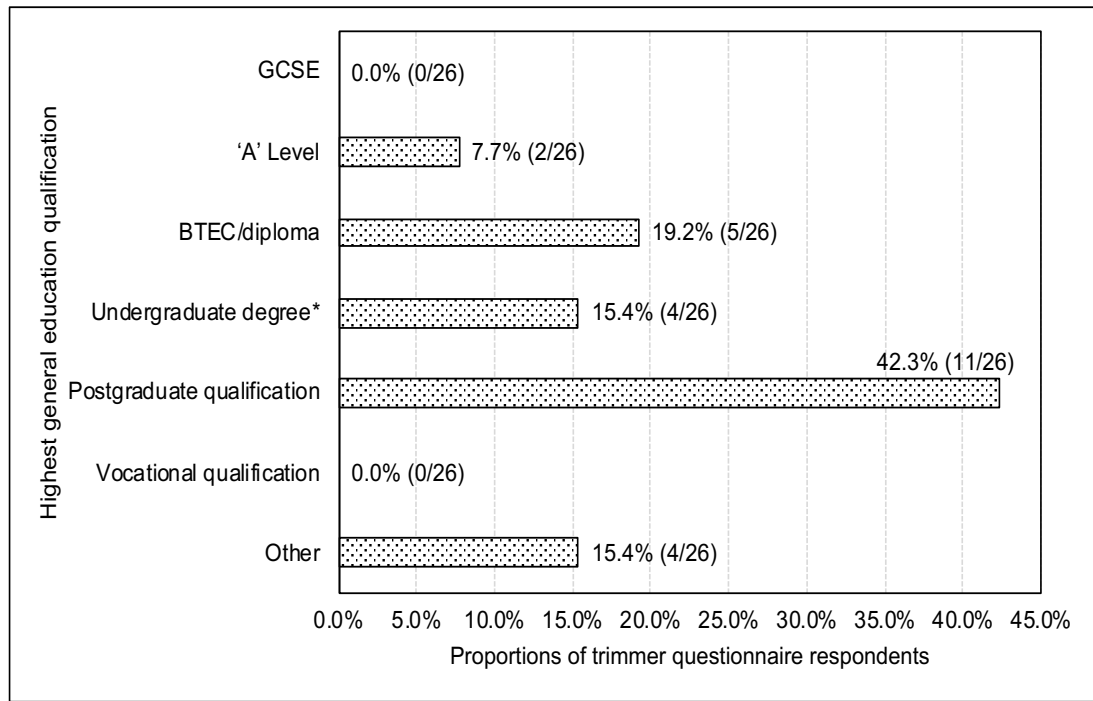


Figure 4.3 Highest general educational qualification of trimmer questionnaire respondents (n=26)

BTEC=Business and Technology Education Council; GCSE=General Certificate of Secondary Education

* One respondent specified their degree as being a Bachelor of Veterinary Science

Trimmer questionnaire respondents were asked to indicate whether they held any equine-related qualifications. This question was only completed by five respondents. Two trimmers reported holding BHS Assistant Instructor qualifications and two reported holding BHS stable management qualifications (one respondent reported holding BHS instructor and stable management qualifications). One respondent was a Registered Shoeing Smith (a farriery qualification awarded by the WCF) and another reported holding a qualification awarded by Parelli (Pat Parelli is a US proponent of natural horsemanship).

4.2.3 Description of trimmers' businesses

Trimmers' business-related activities included not only trimming horses' feet but also providing advice about horse care and exercise. Some trimmers also sold (and sometimes applied) products, including hoof boots, pads and products to fight foot infections and pads.

4.2.3.1 The legal status of trimmers' businesses

Over four-fifths, (81.0%, 34/42) of trimmer questionnaire respondents operated as sole traders and most of the remaining respondents operated their businesses as private limited companies (14.3%, 6/42). One of the respondents' businesses was a partnership (2.4%, 1/42) and the legal status of the other respondent's business was unclear (2.4%, 1/42).

4.2.3.2 Time in business

Trimmer questionnaire responses showed that there was considerable variation in the length of time that trimmers had been in business (range: 1 month to 40 years). The median and mean lengths of time were 9 years and 9.9 years respectively. Nearly all (90.0%, 38/42) of respondents had been in business for between one and 15 years. One third (33.3%, 14/42) had been in business between 10 and 15 years, and the same proportion (33.3%, 14/42) had been in business for 5 or fewer years. Further details about the length of time trimmer questionnaire respondents had been business are displayed in Figure 4.4.

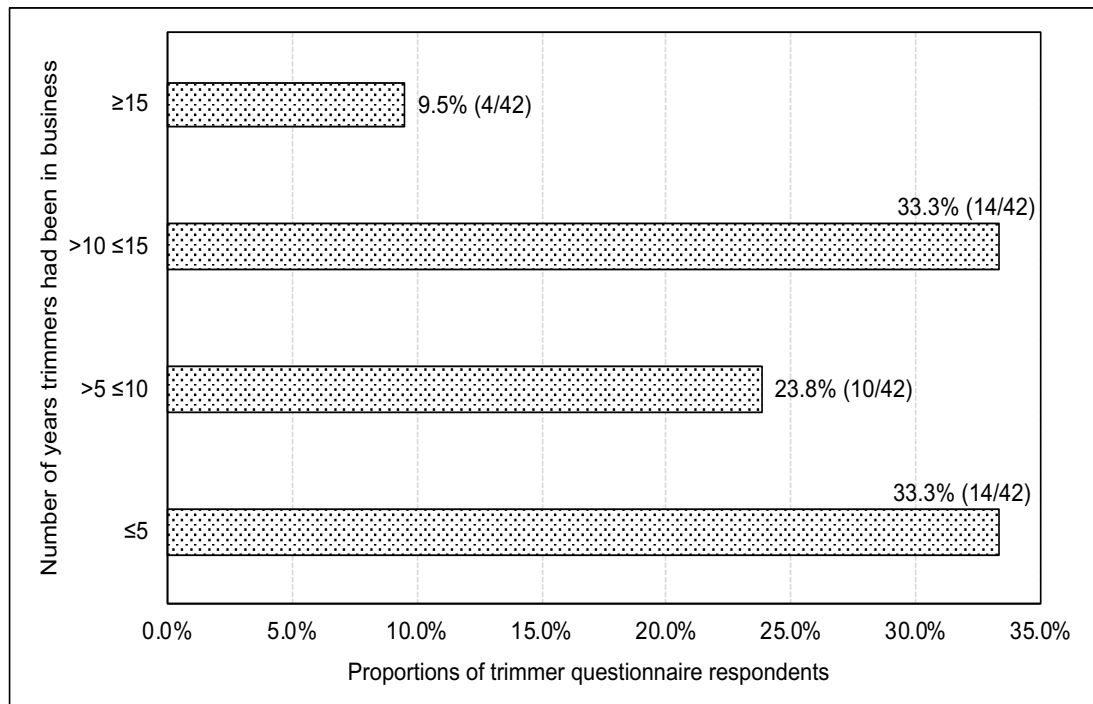


Figure 4.4 Number of years trimmer questionnaire respondents had been in business (n=42)

4.2.3.3 Size of business

There was considerable variation in the size of the trimmer questionnaire respondents' businesses, as determined by the number of horse owner clients (range: 5 to 170), with the mean being 59 clients. Results showed that half (50.0%, 17/34) of the trimmer questionnaire respondents had between 21 and 60 horse owner clients. Further details about the number of horse owner clients to whom the trimmer questionnaire respondents provided services are provided in Figure 4.5.

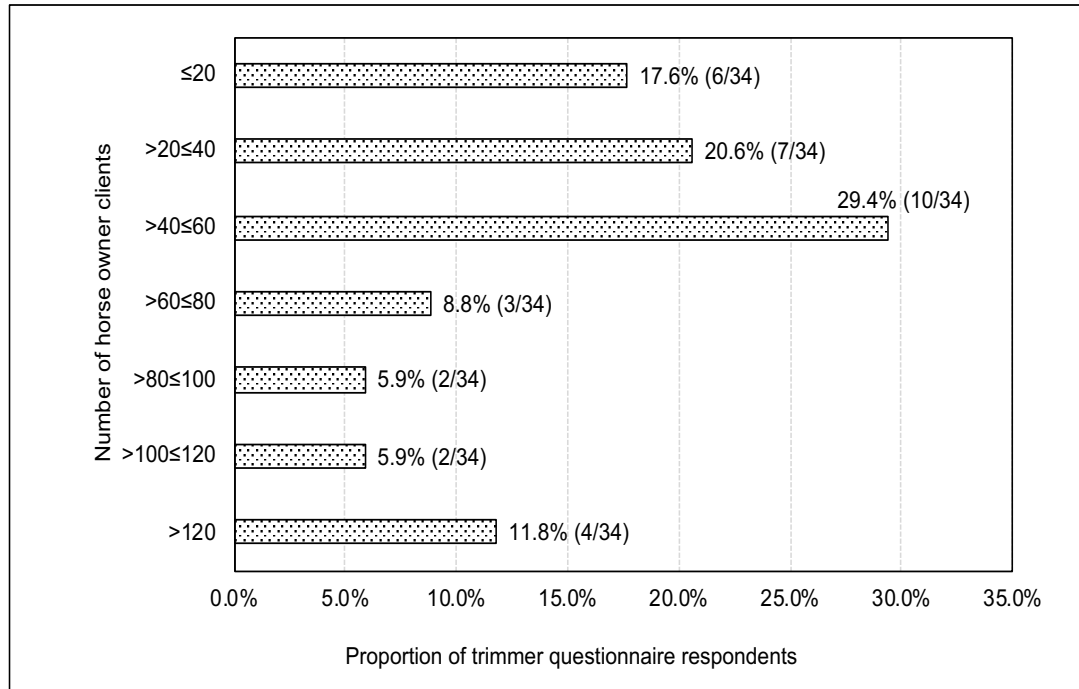


Figure 4.5 Size of trimmer questionnaire respondents' businesses: horse owner clients (n=34)

There was also considerable variation in the size of the trimmer questionnaire respondents' equine client lists (range: 15 to 300). The mean number of equine clients was 123, and both the median and the mode number of equine clients was 100. Nearly two-thirds (61.0%, 25/41) of respondents had between 50-100 equine clients. Further details about the number of equine clients to whom the trimmer questionnaire respondents provided services are provided in Figure 4.6.

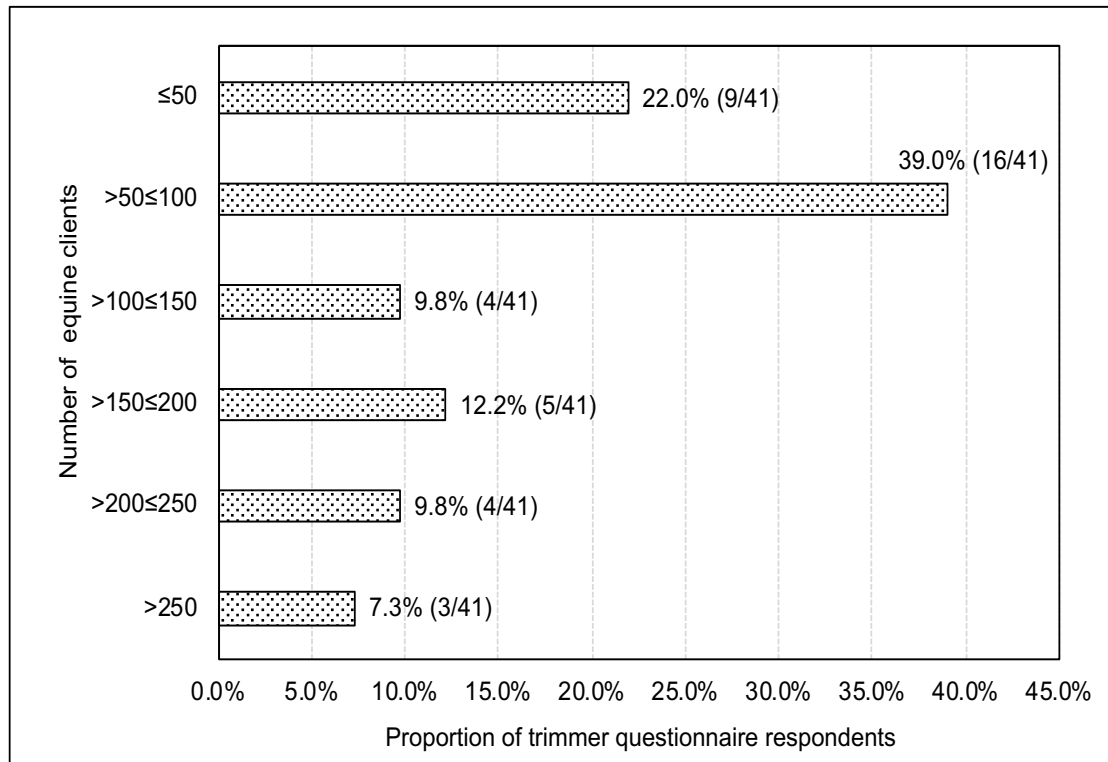


Figure 4.6 Size of trimmer questionnaire respondents' businesses: equine clients (n=41)

4.2.3.4 Days worked

None of the trimmer questionnaire respondents reported trimming horses' feet on 7 days per week and only three trimmers reported trimming horses' feet on 6 days per week. Just under two-thirds (59.4%, 19/32) of respondents trimmed horses' feet on 4 or 5 days per week. Further details about the number of days per week that trimmer questionnaire respondents spent trimming horses' feet are provided in Figure 4.7. It is not known how many hours per day trimmers devoted to their trimming business on days on which they trimmed (nor is it known how much time they devoted to their trimming business on days on which they did not trim).

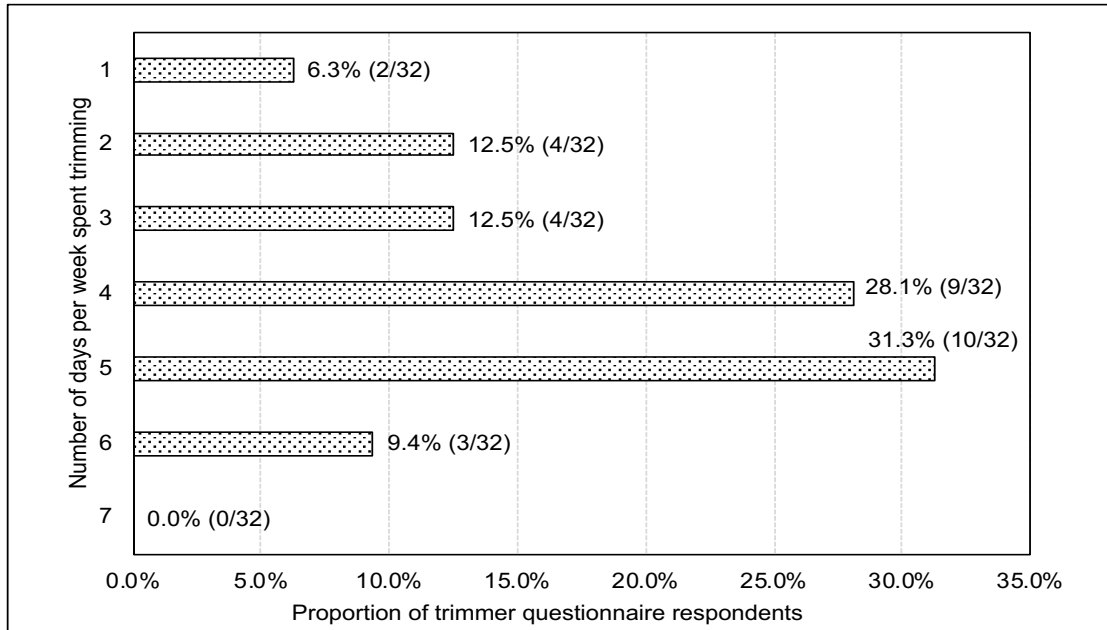


Figure 4.7 Number of days per week that trimmer questionnaire respondents trimmed horses' feet (n=32)

4.2.3.5 Number of horses trimmed on a trimming day

There was a wide variation in terms of the number of horses that trimmer questionnaire respondents trimmed on a trimming day (range: 2 to 15). The mean number of horses that had their feet trimmed was 5.9. Further details about the number of horses whose feet were trimmed by trimmer questionnaire respondents on a trimming day are shown in Figure 4.8.

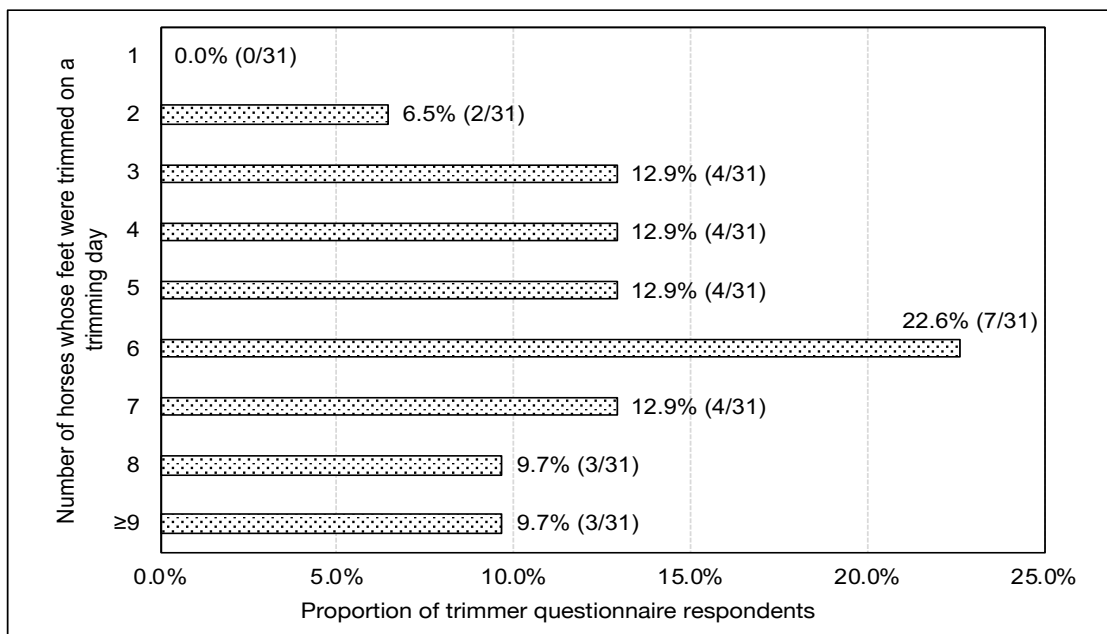


Figure 4.8 Number of horses whose feet were trimmed by a trimmer questionnaire respondent on a trimming day (n=31)

4.2.3.6 Length of trimmers' appointments

During the interviews with trimmers, it became clear that the length of appointments with each horse varied, and that the duration of appointments was affected by the following variables: the individual trimmer, whether it was an initial appointment or a visit to carry out a maintenance trim, and the specific circumstances (horse-related and owner-related). The activities carried out by trimmers during an appointment are described in Chapter 6.

... so, it's usual, even now ... initially the first consultation would take about two hours, now I can usually get it done in about an hour and ten minutes, something like that. So, the maintenance visit is usually about 30 to 40 minutes. [T5, L506-509]

...it can take anything from 1 to 2 hours to do, depending on what I'm confronted with. [T6, L404-405]

It is not often that it would take less than an hour. So, I allow an hour to 2 hours for an appointment, depending. [...] [but if] the owner is on board, knows exactly what they need to be doing, they are educated, they are very observant, they're keen, you can be in and out of there relatively quickly... [T3, L572-577]

Due to this variation, the trimmer questionnaire respondents were asked to estimate how long three different types of appointments (first, maintenance and rehabilitation) took. The appointment lengths of first, maintenance and rehabilitation appointments ranged between 30 to 120 minutes, 15 to 68 minutes and 20 to 120 minutes respectively. The mean lengths of a first appointment, a maintenance appointment and a rehabilitation appointment were 84 minutes, 43 minutes and 72 minutes respectively. The longest appointment times were most frequently associated with first appointments. Further details about the lengths of trimmer appointments are provided in Figure 4.9.

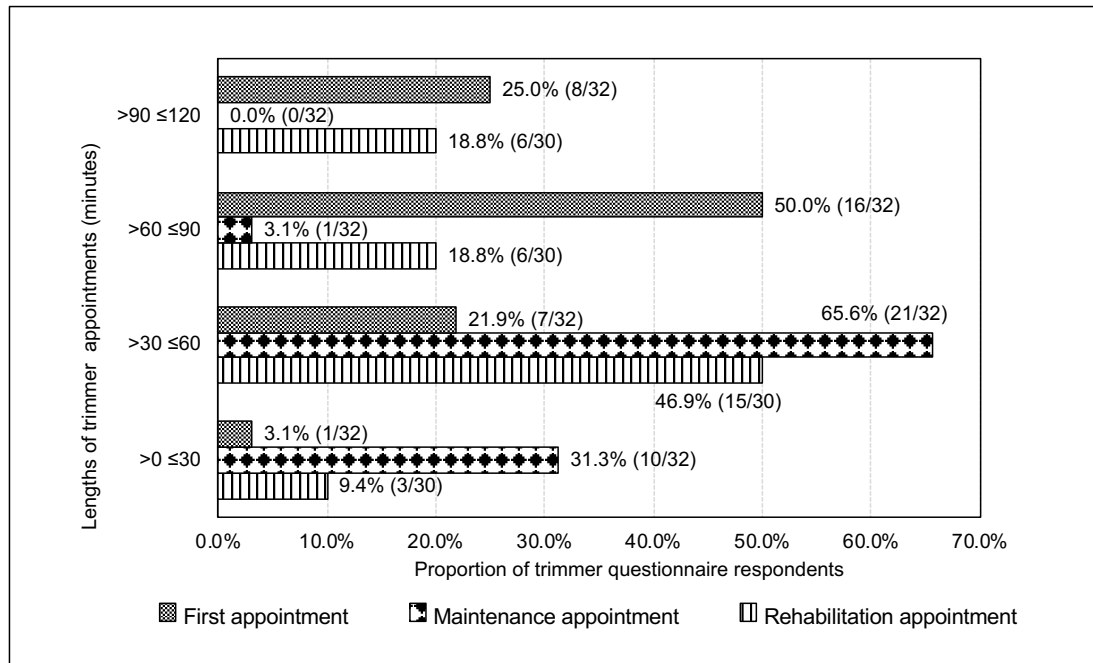


Figure 4.9 Trimmer questionnaire respondents' estimates of the durations of three different types of appointments (first appointment and maintenance appointment: n=32; rehabilitation appointment: n=30)

4.2.3.7 Product sales

Product sales formed part of some trimmer questionnaire respondents' businesses. The products sold included items designed to support and/or protect hooves, including new and second-hand boots (and boot fitting kits), pads and hoof wraps. Other products sold by trimmer questionnaire respondents were feed supplements (Farriers Formula, magnesium oxide [pharmaceutical grade], Progressive Earth Minerals, Rockfoot [a magnesium/calcium mix]), tools, work gloves, books and courses.

Place of product sales within trimmers' business models

Whilst some trimmer questionnaire respondents appear to have regularly sold products, others only sold products to facilitate access to those products, for example, in cases where products were difficult for the client to obtain, or when 'first aid' was required.

I provide magnesium oxide as a service to some of my clients at near cost price simply because they struggle to get good quality products elsewhere. [QR_T12]

I sometimes sell stock - products or boots - if the client is going to struggle to get them and not really for profit. [QR_T56]

I sell therapeutic pads as often are needed in an emergency. For example, laminitis, injury to sole, abscesses. [QR_T61]

Some trimmers highlighted that sales were not part of their business model and/or that they considered that the business-related payoff from product sales was too low or because of a perception that sales would have a detrimental effect on their clients' confidence in their advice.

I offer clients advice on what to buy, also where they can buy it, but I don't want to sell hoof care products myself - for me the margins do not make it worthwhile holding the stock in relation to the extra business admin. [QR_T17]

There's so little money to be made in selling products unless you put a decent mark up on them, and I consider that mark up to be a barrier to my client following my advice. [...] My business is based on charging a fair price for my advice and support, so I don't need to make small profits on stock to supplement my income. [QR_T22]

Frequency of product sales

The split between those who infrequently (never or rarely) and frequently (sometimes or often) sold products to treat equine foot infections was similar (infrequently: 51.4%, 18/35; frequently: 48.6%, 17/35). Trimmer questionnaire respondents were also split fairly evenly between those who infrequently and frequently sold pads (infrequently: 44.4%, 16/36; frequently: 55.6%, 20/36). There was, however, a wider division in terms of sales of boots, with nearly three-quarters (73.5%, 25/34) of trimmer questionnaire respondents infrequently selling boots and just over a quarter (26.5%, 9/34) frequently selling boots. Whilst boots and pads can be used together (the boots being used to secure the pads) it doesn't appear as if trimmers who frequently sold boots also frequently sold pads (only 8.6%, 3/35). However, it is difficult to draw firm conclusions due to limited data. In terms of other types of products, a higher proportion of respondents tended to frequently sell these types of products (infrequently: 38.5%, 10/26; frequently: 61.5%, 16/265). Further details about the frequencies with which trimmer questionnaire respondents sold products are provided in Figure 4.10.

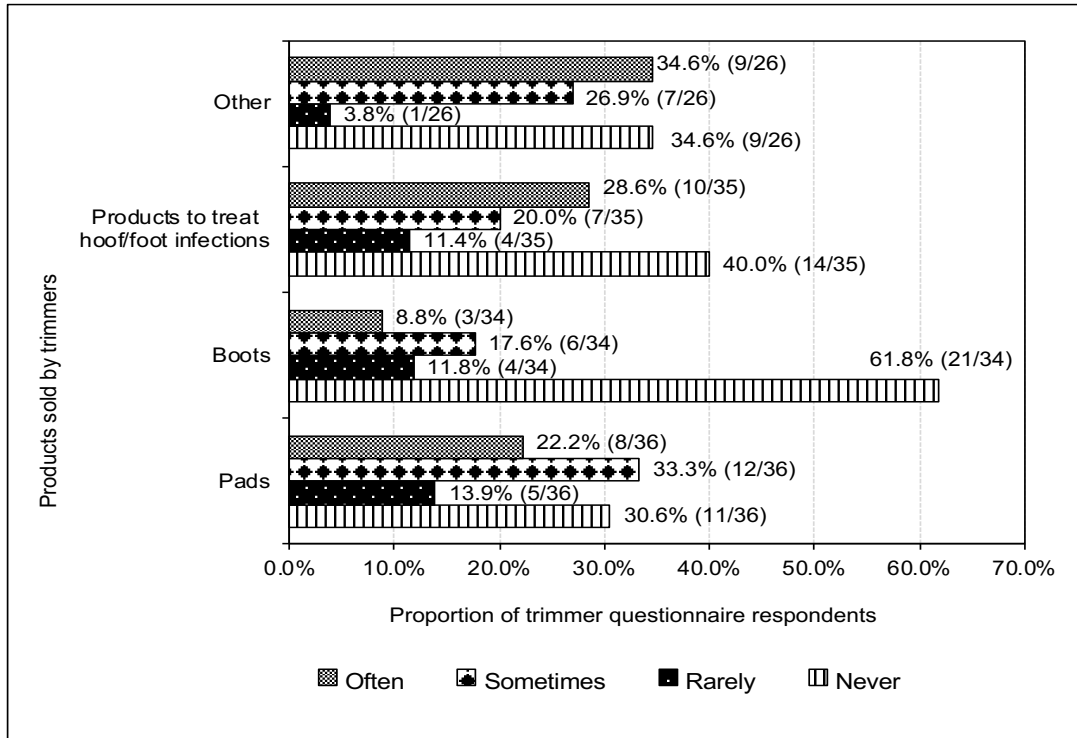


Figure 4.10 Frequency with which trimmer questionnaire respondents sold products (n=36)

4.2.3.8 Charges for trimming services

The consultation/trim

Details of charges for trimming services were provided in a free-text box by 30 questionnaire respondents. There was considerable variation in trimmers' charging schedules. Although one trimmer charged an hourly rate of £50 (including travel) for a maintenance appointment, it was more usual for questionnaire respondents to charge a single fee. However, this fee (which ranged from £30 to £50) often varied depending on the number of horses in the same location (the higher the number of horses, the lower the fee per horse), the size of the horse (the smaller the horse, the lower the fee), whether it was a first, maintenance or rehabilitation appointment, and whether or not a report was provided. One questionnaire respondent trimmer stated that, for non-standard visits, all fees were by arrangement. Another trimmer questionnaire respondent described herself as a 'referral trimmer' and explained that her charges varied depending on the work that she undertook.

Additional services

Some respondents included boot fitting in their consultation/trim fee whilst others added a charge for this service. However, some only charged when boot fitting required a visit that was separate from the trim/consultation visit. When separate

charges were made for boot fitting, they ranged from £15 to £40. Other services specified by trimmers included insurance reports and pre-purchase reports, consultations on management and nutrition, horse training, saddle fitting, rider coaching and cadaver trimming workshops. Some trimmers charged a standard fee for a specific service, whilst others charged an hourly rate. One trimmer was willing to offer an informal opinion (for example, discussing with a potential client whether their horse would be able to be kept barefoot) free of charge if in the area, whilst another, even if in the area, charged a flat fee of £10 if asked to provide advice.

4.2.3.9 Travel

Distances travelled

The information provided by trimmer questionnaire respondents about the frequency with which they travelled within different mileage ranges was difficult to interpret as some respondents provided contradictory answers (for example, stating that they always travelled >20 to 30 miles but also always travelled >30 to 50 miles). However, it was evident from the responses that about half of the trimmer questionnaire respondents (51.8%, 14/27) often or always travelled between 30 and 50 miles, and most of the remaining respondents appeared to travel less than 30 miles from their home base. It was also evident that just over half of the trimmers never travelled more than 100 miles (54.2%, 13/24) but a few (8.3%, 2/24) always travelled more than 100 miles from their home base.

Travel charges

Just over half of the trimmer questionnaire respondents (55.0%, 22/40) indicated they added a travel fee to their trimming/consultation fee and 18 respondents provided descriptions of their travel charges. There was considerable variation in the described charges. Just under two-thirds (61.1%, 11/18) of those trimmer questionnaire respondents' who provided descriptions of their charges indicated that they varied their charges depending on the distance they travelled; two of these respondents charged a set fee per mile whilst the other nine charged different fees depending on distance bands from their base. The distances respondents were prepared to travel before adding an extra cost to their basic fee varied from 10 to 40 miles. Two respondents added additional fees based on travel time rather than on mileage. One trimmer added an extra £5 to her fee when travelling over 30 miles or 30 minutes, whilst another charged every client within an hour's drive from her home £10, regardless of where she was travelling to or where she had come from, but if she had to travel further than the 1-hour radius she charged an additional £0.25p per mile.

Another trimmer questionnaire respondent charged every client £5 to cover the cost of her travel.

4.2.3.10 Positive and negative aspects of life as a trimmer

Trimmer questionnaire respondents were asked to provide details about the positive and negative aspects of their life as a trimmer in free-text boxes.

Positive aspects of life as a trimmer

Trimmer questionnaire respondents were very positive about their chosen occupation. Some saw it as a passion, or a way of life, rather than a job. They liked working with horses and with people, in particular, they got satisfaction from building relationships with their human and equine clients. They also appreciated seeing horses' condition improve.

Recovering horses that are at the end of the road and getting them back to full work/competing. Seeing horses transform from miserable, sore, unfit to vibrant, big moving, capable and happy (gives me a huge buzz). [QR_T13]

Rehabilitation, and a part of that, nothing gives me greater pleasure than taking shoes off a horse. [QR_T27]

This satisfaction was enhanced by having appreciative owners. Trimmers liked working for themselves, working outside, meeting lots of people and travelling. They enjoyed constantly learning and the intellectual challenge (described by one trimmer as 'problem-solving'). They also liked educating horse owners about caring for horses and, in the process, empowering the horse owner.

Negative aspects of life as a trimmer

Whilst questionnaire respondents were very positive about being trimmers, there were elements of their role that caused them dissatisfaction. In contrast to the positive points mentioned about owners, there was a recognition that some horse owners could be very uncooperative, difficult and irritating. Examples included owners who did not carry out recommendations or listen to advice but expected to see positive results, owners who treated horses like objects and owners who were perceived to lack principles. Some questionnaire respondents also found seeing some of the conditions in which shod horses were kept (and the perceived resultant health issues) distressing.

Questionnaire responses also included complaints about the weather. Specifically, there were complaints about winter, wind, rain (getting wet, working without shelter in wet and windy conditions [and bright sunshine]), mud (muddy horse's legs, trimming in muddy fields, muddy rugs). Trimmers also did not like getting dirty/smelly or driving, particularly in traffic. Other practical difficulties highlighted by respondents were awkward horses and poor-quality x-rays. In addition, some trimmers highlighted personal anatomical-related discomfort (back pain, bad hips, shoulders, sciatica) and the injuries they had sustained.

4.2.3.11 Trimmers' business development plans (5-year time horizon)

The group of trimmers who were interviewed included one trimmer who had recently completed training and was in the process of establishing her business, four whose focus was on maintaining their current business, and one who was reducing the size of her business.

Twenty-seven trimmers provided details (in a free-text box) about how they would like to see their businesses develop over the next 5 years. However, seven of these respondents (25.9%) did not have plans to expand their businesses: three were happy to maintain their current business, two were on the point of retiring (aged 51-60), one was currently off work long-term due to an injury incurred whilst trimming, and another was scaling-down her business due to ill health.

The ways that respondents wanted to expand their current businesses included taking on more clients, taking on more apprentices and increasing their stock of hoof boot fit kits. Some were keen to diversify, either by learning a new skill (for example, body work), expanding a current role (for example, working as a consultant), or, and this was a repeated theme, providing trimming-related education (for example, delivering lectures and workshops or writing a book or magazine articles). One questionnaire respondent wanted to modify her current facilities to be able to offer specialised livery (hoof rehabilitation and retirement) and research facilities.

Some questionnaire respondents provided details about practical issues relating to their businesses that they would like to change. These included working more locally, building better relationships with vets and associated professionals, getting better at doing paperwork, creating video footage, and writing (newsletters and blogs were given as examples). Other trimmers had education-related ambitions, specifically, finishing a PhD and continuously improving knowledge.

4.3 Information about the horse owners who participated in my research

4.3.1 Horse owner interviewee characteristics

Four of the horse owners were female and one was male. One of the owners lived in the Home Counties and the other four lived in the North of England. At the point when they were interviewed, two owners owned one horse, two owned two horses and the other owned seven horses. Four of the owners owned horses that competed barefoot (three in endurance events, including at international level, and one in eventing competitions). One of the owners changed from keeping her horse shod to barefoot on seeing how successful barefoot had been for somebody else's horses, whilst all of the others had changed to keeping their horse barefoot as, when shod, their horse had experienced hoof-related issues.

4.3.2 Horse owner questionnaire respondent characteristics

In total, 1022 individuals responded to the horse owner questionnaire. Of these, details provided by 341 individuals were excluded from the analysis as it was either clear that they lived outside of the UK or it was not possible to determine that they lived in the UK. Analyses were, therefore, undertaken using data provided by the 681 respondents who lived in the UK; however, not all respondents provided responses to all questions. As it is not possible to determine the number of barefoot horse owners who viewed the Facebook links (or who were sent links to the horse owner questionnaire by their trimmer), it was not possible to determine a response rate.

4.3.2.1 Horse owner demographic information

As described in Section 3.4.2.2 (Box 3.2), the horse owner respondents were categorised into three horse owner typology groups (committed barefooters [n=223], new barefooters [n=290] and intermittent barefooters [n=168]). Some characteristics differed by horse owner typology group, whilst others did not.

Results from the horse owner questionnaire did not differ statistically significantly by horse owner typology group in terms of gender (χ^2 [2, 674]=0.641, p=0.726), age (χ^2 [8, 679]=7.187, p=0.517), the region of the UK where the respondents lived (χ^2 [22, 681]=31.378, p=0.089), or the highest general education qualification held by respondents (χ^2 [12, 658]=12.273, p=0.056).

Information about gender was provided by nearly all horse owner questionnaire respondents (99.9%, 674/681), nearly all of whom were female (95.2%, 648/674).

The modal age range of the horse owner questionnaire respondents was 51-60 years (26.4%, 179/679), and nearly three-quarters (73.2%, 497/679) of respondents were aged between 31 and 60 years. Further details about the age of horse owner questionnaire respondents are provided in Figure 4.11.

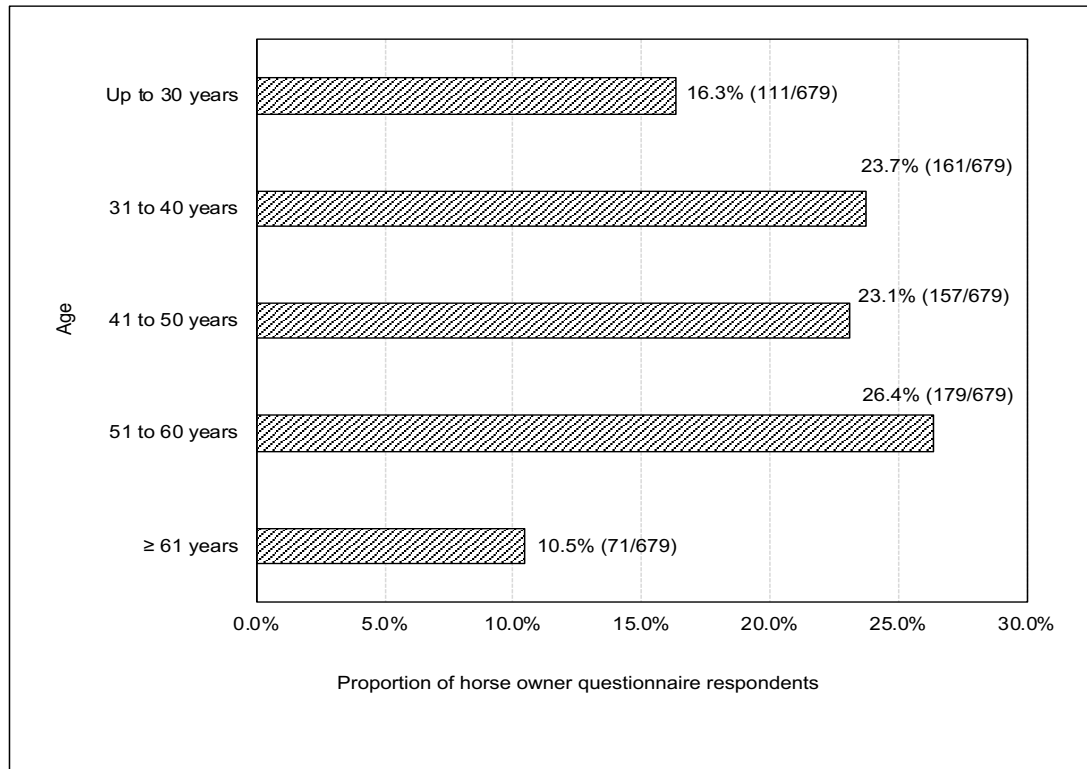


Figure 4.11 Age of horse owner questionnaire respondents (n=679)

The geographical region where the highest proportion (17.5%, 119/681) of horse owner questionnaire respondents lived was the South West. This was also the region in which the highest proportion of the trimmer questionnaire respondents lived. Other regions where relatively high proportions of horse owner questionnaire respondents (>10%) lived were the South East (14.8%, 101/681) and the North West (12.3%, 84/681). Further details about the region of the UK in which horse owner questionnaire respondents lived are provided in Figure 4.12.



Figure 4.12 Regions of the UK where horse owner questionnaire respondents lived (n=681)

Just over half (53.4%, 351/657) of the horse owner questionnaire respondents were university educated, with approximately equal proportions holding undergraduate and postgraduate qualifications (undergraduate: 25.7%, 169/657; postgraduate: 27.7%, 182/657). Further details about horse owner questionnaire respondents' highest general education qualifications are provided in Figure 4.13.

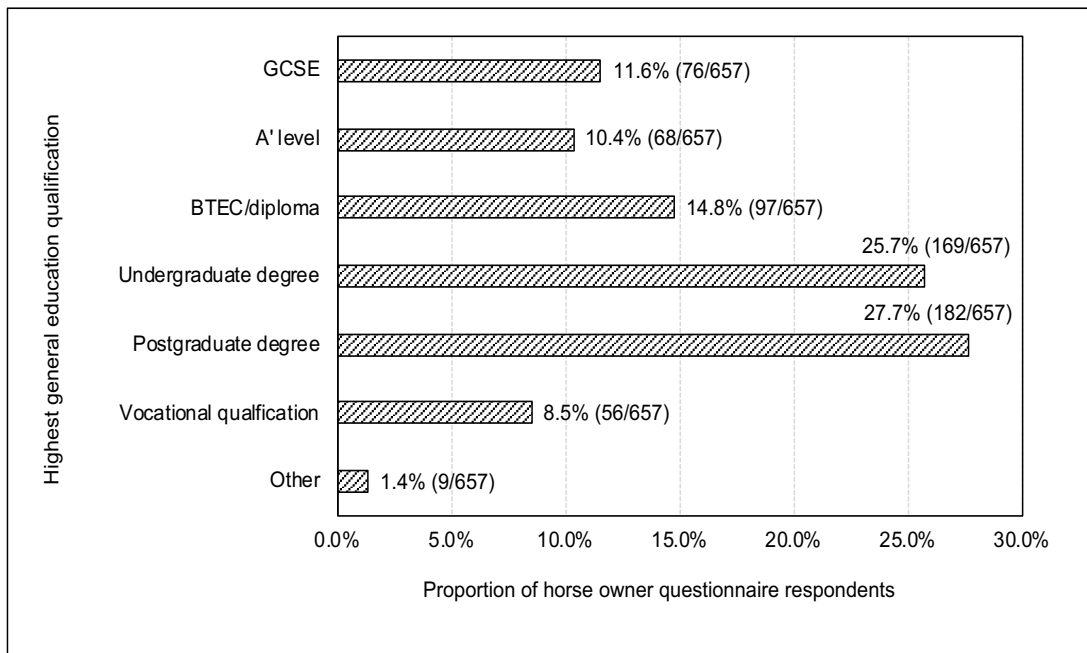


Figure 4.13 Horse owner questionnaire respondents' highest educational qualification (n=657)

BTEC=Business and Technology Council; GCSE=General Certificate of Secondary Education

Results from the horse owner questionnaire differed statistically significantly by horse owner typology group in terms of household income (χ^2 [20, 611]=108.781, $p<0.000$), the number of horses owned (χ^2 [16, 681]=231.749, $p<0.000$), age of their questionnaire horse (χ^2 [10, 681]=76.337, $p<0.000$), and size of their questionnaire horse (χ^2 [12, 680]=24.776, $p=0.016$).

Household incomes were divided into three bands: <£30,000, £30,000 to £59,999 and \geq £60,000. Overall results showed that the proportions of respondents with household incomes that fell into these three bands were very similar (<£30,000: 34.5%, 211/611; £30,000 to £59,999: 33.2%, 203/611; \geq £60,000: 32.2%, 197/611). Results from an analysis by horse owner typology group showed that the household income distributions of the committed and new barefooter groups were similar to the overall population distribution (i.e., approximately equal proportions in the three income bands). However, the household incomes of respondents in the intermittent barefoot group were different; approximately one quarter (24.5%, 37/151) of this group had incomes that fell into the <£30,000 and £30,000 range, a further quarter (25.2%, 38/151) had incomes that fell into the £30,000 to £59,999 income band, whilst the remaining half (50.3%, 76/151) had incomes that fell into the \geq £60,000 income bracket. Further details of horse owner questionnaire respondents' annual household incomes are displayed in Figure 4.14.

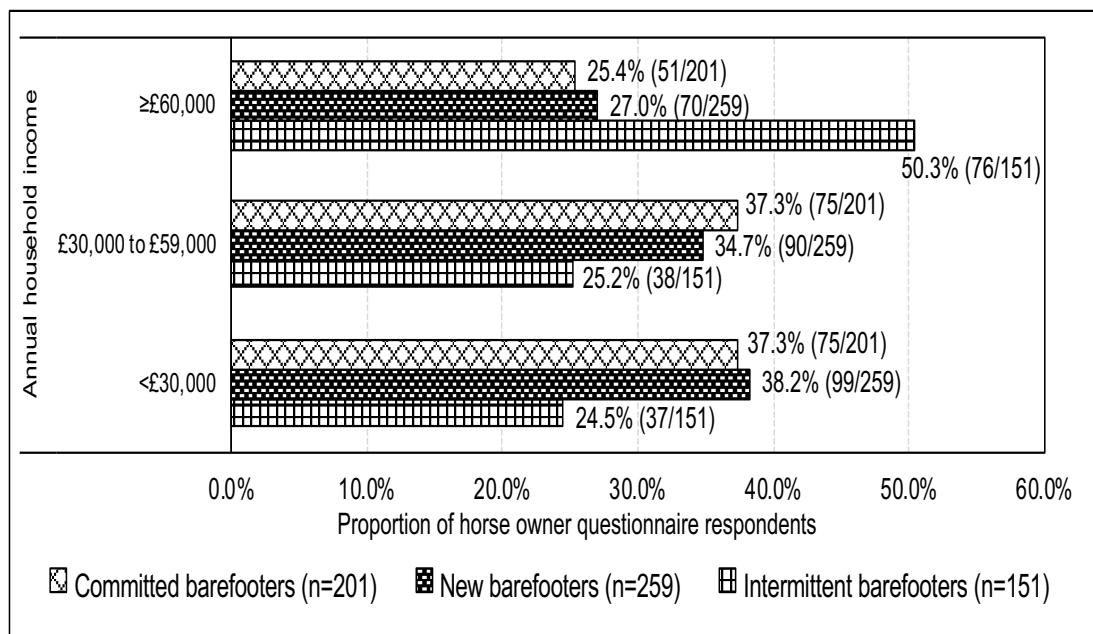


Figure 4.14 Household incomes of horse owner questionnaire respondents divided into three categories (n=611)

4.3.2.2 Horse owner questionnaire respondents' barefoot horses

Results from the horse owner questionnaire differed statistically significantly by horse owner typology group in terms the number of horses owned (χ^2 [16, 681]=231.749, $p<0.000$), and the age (χ^2 [10, 681]=76.337, $p<0.000$) and the size of the owners' questionnaire horse (χ^2 [12, 680]=24.776, $p=0.016$).

Overall, more horse owner respondents indicated that they owned one horse (34.5%, 227/658) than any other number of horses, although and the second most frequently cited number was two horses (30.1%, 198/658). The general trend was that decreasing proportions of owners owned increasing numbers of horses.

Results from an analysis by horse owner typology group showed that the group that contained the highest proportion of owners of one horse was the new barefooters, and the group that contained the highest proportion of owners of two horses was the intermittent barefooters. Compared with the proportions of owners in the committed and new barefooter groups, nearly twice as high a proportion of intermittent barefooters owned three horses. Further details about the number of horses owned by horse owner questionnaire respondents are provided in Figure 4.15.

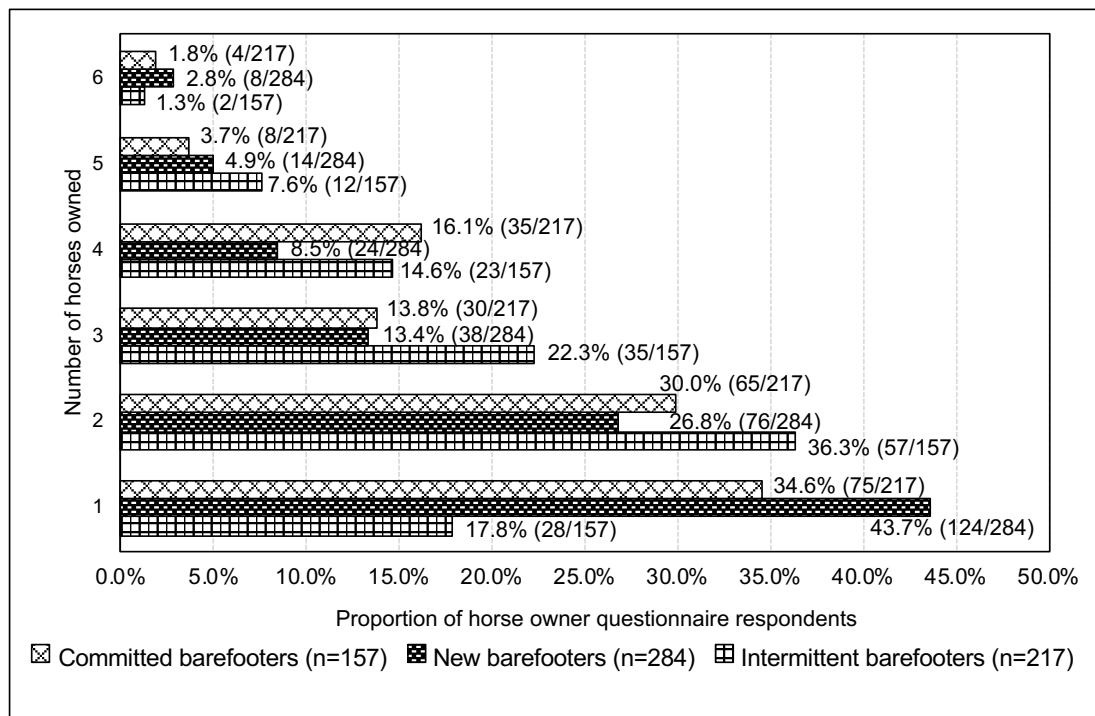


Figure 4.15 Number of horses owned by horse owner questionnaire respondents (n=658)

Overall, just over half (57.5%, 296/513) of all horse owner questionnaire respondents' questionnaire horses were aged between 6 and 15 years. The overall trend was that as questionnaire horse age increased above 15 years, the proportion of owners owning questionnaire horses in each age bracket fell.

The age range in which the highest proportion of questionnaire horses belonging to committed and intermittent barefooters fell was 6 to 10 years, whilst the age range in which the highest proportion of questionnaire horses belonging to new barefooters fell was 11 to 15 years. Another noticeable difference was that, compared with committed and intermittent barefooters, twice as high a proportion of new barefooters owned questionnaire horses aged 21 to 25 years. Further details about the age of the horse owner questionnaire respondents' questionnaire horses are provided in Figure 4.16.

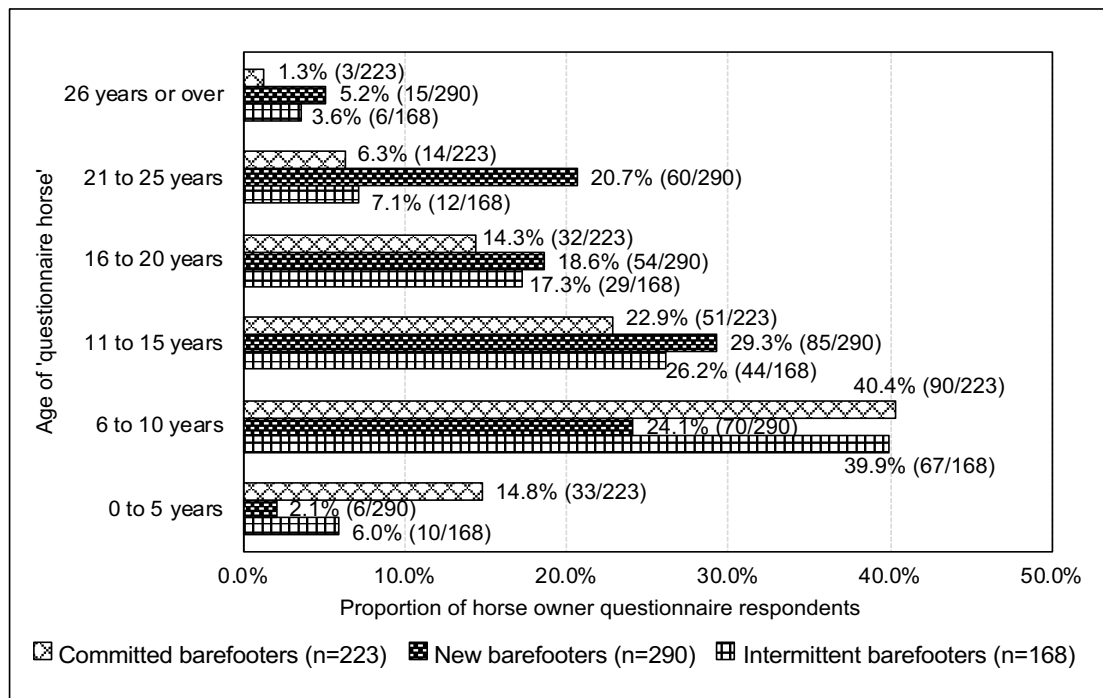


Figure 4.16 Age of horse owner questionnaire respondents' horse (n=681)

Horses' height is measured at the withers (a ridge between the horse's shoulder blades). Height is either measured in centimetres or hands (1 hand=4 inches). Overall, approximately four-fifths (78.2%, 532/680) of respondents' questionnaire horses were between 143cm to 172cm in height. A notable difference between horse owner typology groups was that the most common size of horse owned by committed and new barefooters was 153cm to 162cm, whilst for intermittent barefooters it was 143cm to 152cm. Further details about the size of the horse owner questionnaire respondents' questionnaire horses are provided in Figure 4.17.

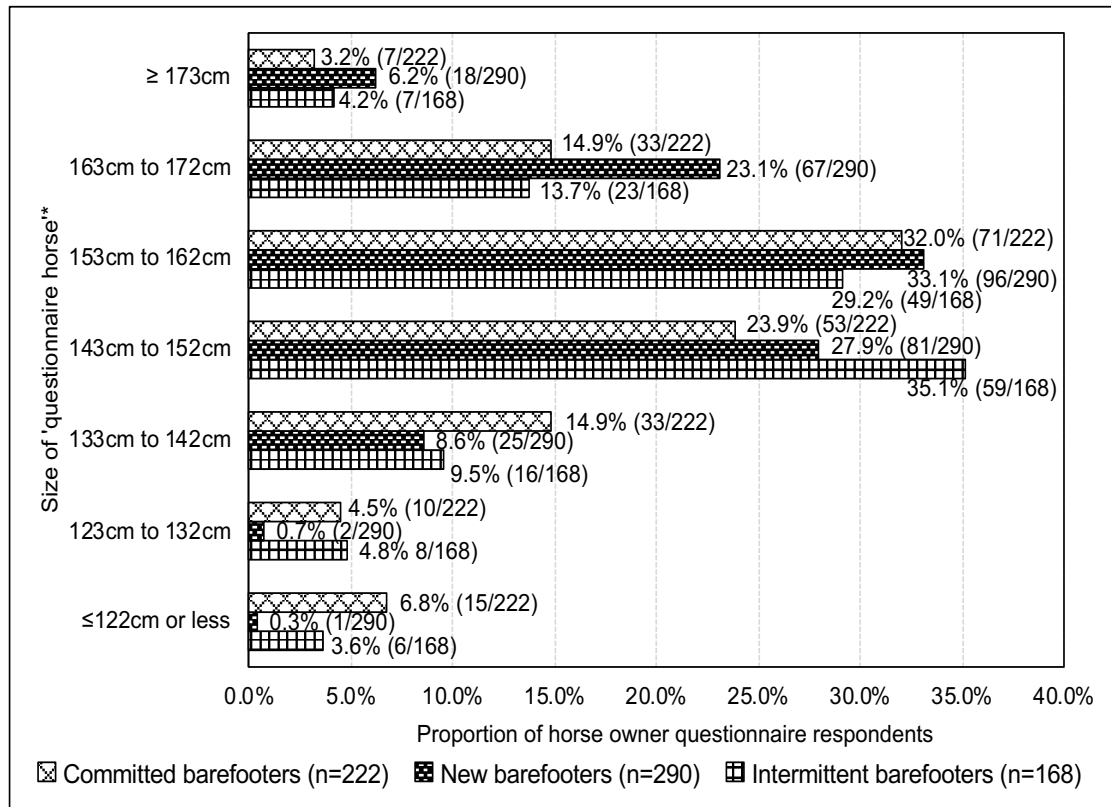


Figure 4.17 Size of horse owner questionnaire respondents' questionnaire horses (n=680)

* ≥122cm=≥12hh; 123cm to 132cm=12.1hh to 13hh; 133cm to 142cm=13.1hh to 14hh; 143cm to 152cm=14.1hh to 15hh; 153cm to 162cm=15.1hh to 16hh; 163cm to 172cm=16.1hh to 17hh; ≥173cm=≥17hh

4.4 Overview of the conceptual model

I have developed a conceptual model that helps to explain, from the trimmers' perspective, the essential components of becoming and being a trimmer, regardless of the type of training undertaken or the beliefs held by any trimmer. This overarching model, displayed in Figure 4.18, comprises three elements: (i) becoming and being a trimmer, (ii) provision of foot-centred care, and (iii) building and safeguarding reputation. Whilst the conceptual model was developed following an in-depth analysis of trimmer interview transcripts, in Chapters 5 to Chapters 7, the concepts are illustrated using trimmer interview data and also data collected via the trimmer questionnaire.

The first element of the model, becoming and being a trimmer is considered in Chapter 5. The model is used to describe the transition from conventional to barefoot hoof care. It is also used to examine the experience of being a trimmer, including the differences between trimmers and conventional hoof care professionals and pressures associated with working outside the conventional world. Information collected during the interviews showed that trimmers adopted what I have termed a 'foot-centred' approach to caring for horses (the second element of the model). The

'balance management cycle' is used to deliver foot-centred care. It is a cyclical management process (Assess, Plan and Do) which is used to manage factors that trimmers believe affect horses' feet and to facilitate the achievement of foot health and functionality goals (Chapter 6). Information collected from trimmers showed that their reputation helped to build and maintained their business. The third element of the model (described in Chapter 7) outlines the two main approaches used by trimmers to build and safeguard their reputations. In this third element of the model, these reputation-building and safeguarding strategies are linked to delivering foot-centred care, specifically, the balance management cycle.

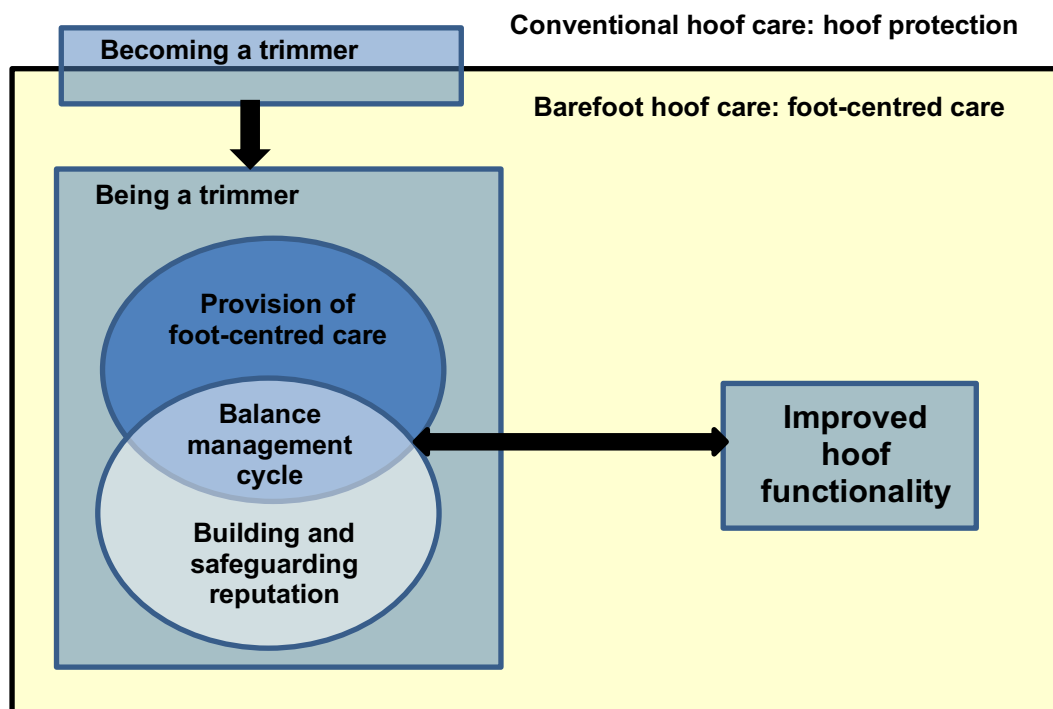


Figure 4.18 Conceptual model: the essential components of becoming and being an equine barefoot trimmer

All the trimmers interviewed as part of my research were (or had been) horse owners. The horse owners' perspective is considered in Chapter 8 and Chapter 9. The pros and cons of keeping a horse barefoot, including the reasons why owners decided to keep their horse barefoot, are explored in Chapter 8 and the extent to which the beliefs and practises of horse owners are in line with those described by trimmers (in Chapters 5, 6 and 7) is explored in Chapter 9.

4.5 Summary

Information was collected from trimmers via interviews (n=6) and the trimmer questionnaire (n=42). Information collected via the trimmer questionnaire showed that most of the respondents were female, aged between 31 to 60 years, highly educated (over half held a university degree), and the region of the UK in which the largest proportion of respondents lived was the South West. There were wide variations in terms of the characteristics of trimmers' businesses. Trimmer questionnaire respondents had been in business for between 1 month and 40 years and had between 15 and 300 equine clients. Most trimmers worked on 4 or 5 days per week but on any trimming day, individuals reported trimming the feet of between 2 to 15 horses. Charges for trimming ranged from between £30 to £50 per horse. Some trimmers sold products, whilst others did not. Most trimmers appeared to only travel within about an hours' radius of their home base, but a few travelled internationally.

Information was collected from barefoot horse owners via interviews (n=5) and the horse owner questionnaire (n=681). As explained in Section 3.4.2.2 (Box 3.2), horse owner questionnaire respondents were divided into three typology groups: committed barefooters (n=223), new barefooters (n=290) and intermittent barefooters (n=168). Differences between the horse owner typology groups were not statistically significant in terms of gender, age, highest general education qualification, or region of the UK in which they lived. Most questionnaire respondents were female, aged between 31 to 60 years, highly qualified (over half held a university degree) and the region of the UK in which the largest proportion of respondents lived was the South West. However, there were statistically significant differences in terms of household income, the number of horses owned and the size of those horses. Compared with committed and new barefooters, more intermittent barefooters reported having household incomes \geq £60,000. Compared with committed and intermittent barefooters, a higher proportion of new barefooters owned one horse or more than three horses. Compared with committed and intermittent barefooters, fewer new barefooters owned small (\leq 133cm) and large (\geq 16cm) horses and it was the new barefooters who tended to own the older horses ($>$ 15 years).

This chapter concluded with an overview of the conceptual model that is used in Chapter 5 to Chapter 7 to explain becoming and being a trimmer.

5 Becoming and being a trimmer

5.1 Overview

This Chapter includes data collected from trimmers (via my one-to-one interviews and the trimmer questionnaire). The data presented in Section 5.2 describe how study participants came to be trimmers, including the training that they undertook. Section 5.3 includes contextual information about being a trimmer. The general nature of the approach of keeping horses barefoot is described in Section 5.3.1 and trimmers' perceptions relating to working outside the conventional hoof care world are provided in Section 5.3.2.

5.2 *Becoming a trimmer*

5.2.1 Lead up to becoming a trimmer

5.2.1.1 *The triggers that sparked an interest in barefoot care*

All of the trimmers interviewed as part of my research were, or had been, horse owners before they acquired training to become a trimmer. The reasons behind interviewed trimmers' decisions to keep their horse barefoot were: owning shod horses with persistent lameness issues that had not been resolved using conventional approaches, being unable to find a farrier who would shoe their horse, having positive memories of the experiences of keeping their childhood pony barefoot, and hearing about a shoeless horse successfully completing in a national-level endurance competition. In line with the reasons behind the wider horse owning community decisions to keep their horse barefoot (see Section 8.2), these reasons reflect an understanding that shoes were not necessary, or a view that there were benefits to keeping a horse barefoot that could not be achieved by keeping that horse shod.

5.2.1.2 *The decision to become a trimmer*

One interviewed trimmer who had been looking for a new career had made a conscious decision, on moral grounds, to train as a trimmer rather than as a farrier. Other interviewed trimmers learnt to trim (out of desperation), to help their own horses, or out of curiosity. In all cases, their businesses had grown organically.

...I sort of thought I would maybe train to be a farrier but then I realised that it didn't quite sit right with me erm...and that it was actually I, I didn't want to train to be a farrier, I wanted to... I wanted to be barefoot.

[T2, L32-35]

...there wasn't really anybody else to hand stuff over to at the time, you know if there had been lots of very good barefoot hoof care, farriers with experience, veterinary surgeons with experience, it would probably have been a different matter because I was quite happy to hand over to my farrier, who is a good farrier but there wasn't really anybody who could tell me about it so I had to basically try and find out as much as I could myself. [T1, L54-59]

Interviewer: So, you started training with KC, was that just for your own interest?

Interviewee: Initially, yes. [T3, L42-43]

And I suppose once we got the horses here sound and back in work that was probably when other people started saying 'well can you just have a look at my horse'... it was that sort of – it wasn't something I intended to do. [T1, L62-65]

...but then the more I knew the more people just arrived out of the woodwork and said, 'Can you have a look at my horse?', and kind of it just grew really. [T5, L87-89]

5.2.2 Training

Academic qualifications were not specifically discussed with interviewed trimmers. Details of trimmer questionnaire respondents' academic qualifications can be found in Section 4.2.2

5.2.2.1 Initial trimmer training

Some of the interviewed trimmers had gone to the USA to undertake initial training. One trimmer explained that this had been necessary as, in the UK, when she started to develop an interest in keeping horses barefoot there had been an absence of knowledge about, or enthusiasm for, this type of care.

So as far as I was aware there wasn't anybody really in the UK who knew much about it at all other than it's not going to work in the UK [...] There were a few people who were apparently having success with it in the USA so that's where I started looking. [T1, L33-38]

Sources of interviewed trimmers' initial knowledge and training were either informal (seeking out people who were advocates of barefoot) or formal (attending a barefoot course).

I went to the States, I talked to quite a lot of people there, I talked to a lot of people in the UK... [T1, L59-60]

I trained with the [provider name] [...] I looked at all other courses and the [provider name] [...] seemed to be the most comprehensive course that was available. [T2, L241-252]

The factors mentioned as being influential when choosing a training course were fate (i.e., a course being held at a convenient time in a convenient location), avoiding a particular approach to trimming, and the academic content of the chosen course.

I just got onto the Internet and had a look round. I'd heard about [a particular approach to hoof care] and knew it was something to be avoided at all cost and I just looked around at barefoot trimming courses and the only one that I could find that wasn't [that approach to hoof care] was [a course run by another group] and it happened that there was a course going to be happening in a week's time and I could be available in a week's time, so I just rang up on the off chance and there was one space left – so it seemed like it was... fate! [T5, L38-43]

There was everything, and when I looked at their training it just, [provider name] seemed to be a lot more academic... [T6, L127-131]

Before starting up in business, nearly all of the trimmer questionnaire respondents (95.5%, 42/44) reported having received training. Almost all of these individuals had received training from a single organisation, although a small proportion (11.4%, 5/44) reported having received training from more than one organisation or individual. Just over half of the respondents (54.5%, 24/44) had received training from either Equine Podiatry Training (n=12) or the Institute of Applied Equine Podiatry (n=10).

The Equine Podiatry Training is the only UK-based organisation. The Association for the Advancement of Natural Hoofcare Practices, the Institute for Applied Equine Podiatry and Liberated Horsemanship) have their headquarters in the USA, and the headquarters of The School of Barefoot Strategy is in Norway.

A Venn diagram showing the numbers of trimmers receiving initial training from different organisations is provided in Figure 5.1.

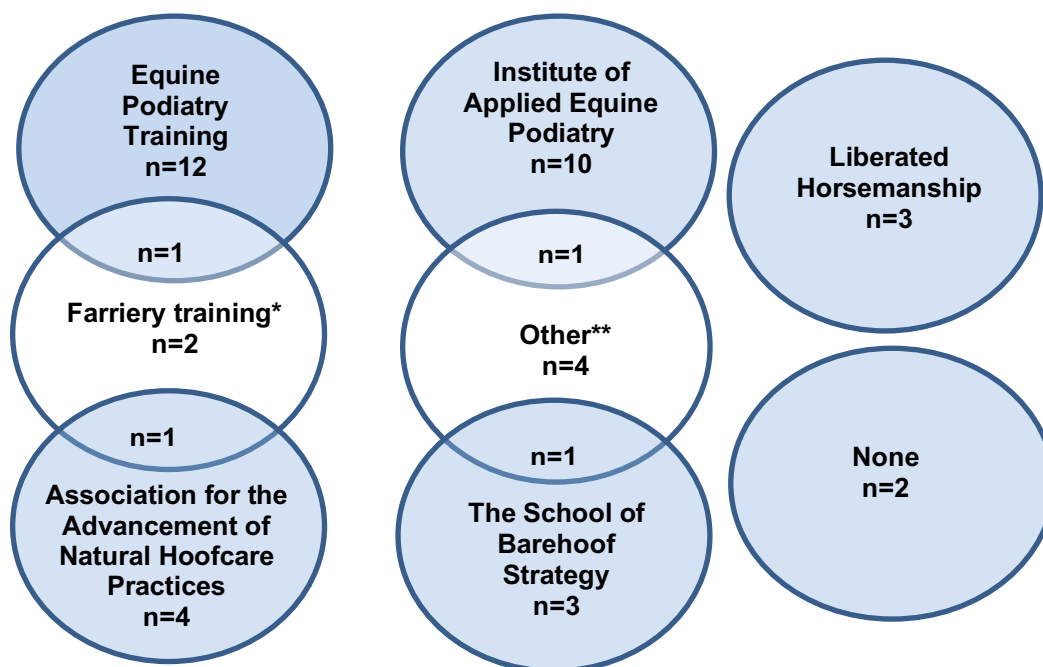


Figure 5.1 Venn diagrams showing sources of initial training received by trimmer questionnaire respondents (n=42): overlap indicates training received from more than one provider

* Farriery training providers: Worshipful Company of Farriers, an unspecified accredited farriery training schools, Cytek Horseshoe Company

** Other training providers/qualifications: Equine Science Academy, Hoofworks (Australia), Pacific Hoofcare Practitioners (a hoof boot company), Strasser Hoofcare training, veterinary surgeon, multiple sources (university degree, clinics, hands-on experience and workshops)

5.2.2.2 *Training and learning that had been undertaken to supplement initial training*

Interviewed trimmers highlighted that the initial training that they had undertaken had been designed to teach the fundamentals of trimming and had not equipped them to deal with complex cases, such as feet with pathologies. They, therefore, undertook further training.

And in that training it was always suggested that that [training] was appropriate for doing like, what you would call, normal horses. So, horses without pathology. [T3, L184-186]

...once I qualified it quickly became apparent that the training I'd had only really trained me to do basic trimming on non-pathological feet and that would have been lovely if I could have guaranteed that every horse I came across had non-pathological feet, but erm... they didn't. I also found that it [initial training] didn't give me enough answers to help the horse that I had originally wanted to help – my own horse. [T5, L61-65]

The interviewed trimmers employed a range of different approaches to obtaining further knowledge and skills: formal and informal, practical, and theoretical.

One approach had been to supplement initial training with additional formal courses delivered by a wide range of experts (trimmers, nutritionists, and several academics).

I had met with [named academic], who had done some experiments [...] I met [named academic], who works at [named University] [...]. So, I kind of just started learning from all over the place – trying to understand things. [Named individual] from [country name] erm... you name it I kind of sucked up the information and got gradually, as time went on, erm... started to get enough of an understanding of what was wrong with my horse to be able to help him. [T5, L76-83]

Another approach had been to supplement initial training with informal training that was directed at learning practical skills rather than obtaining theoretical knowledge.

I mean as soon as I qualified I erm started doing some shadowing... [T2, L314-315]

This trimmer highlighted her belief that ongoing self-directed learning was necessary.

...you do have to do a lot of, a lot of the research on your own. [...] it's definitely ongoing learning, I think you have to erm I mean there's always you know all sorts of books and stuff that try and keep your hand in. [T2, L285-321]

Due to the limited knowledge available about keeping horses barefoot and the fact that they worked largely in isolation, interviewed trimmers reported that, initially, they had gained knowledge by examining the effects of different interventions on their own horses' feet.

Unfortunately, it was very much through trial and error because in those days there wasn't any really any support. I didn't have any local erm... footcare provider that I could call upon, so I was very much on my own. [T5, L27-28]

... and started really monitoring our own horses and how they were going and what was helping them and what wasn't. [T1, L60-62]

Interviewed trimmers reported continuing to use this process of experimenting with various methods until finding the most successful intervention. They stressed that horses were at low risk of harm from these interventions.

...unfortunately, the only way we can try these theories out is by trying them out on our clients. But the management strategies that we employ anyway aren't the kind of management strategies that are going to harm a horse, so we are quite happy to do that; the worst it will do is it will just not work. [T5, L850-852]

I picked his book up and having read the book had a go at trimming this horse's feet. Needless to say, the knife stroked the air above the frog mostly, and that kind of stuff, so it was very cautious... [T3, L61-63]

Continuing professional development

Interviewed trimmers undertook continuing professional development (CPD) to further their knowledge and develop their skills. For those who wished to continue being a member of a trimmer organisation, training was obligatory. However, one interviewed trimmer, highlighted that she viewed her organisation's CPD requirement as the minimum amount of CPD that she would undertake.

I mean we have to do CPD to remain a member of the [trimmer organisation] [...] part of it has to be directly related to hooves. So that's going out and doing a trim day, or going out and shadowing, or taking a course and then the rest of it we can do as you know, reading material or doing further courses which are related to horses you know, like a behaviour course or something... [T2, L321-328]

I've gone on, carried on doing CPD requirements to stay on the active list, so that is basically re-attend a practical course every year. So, I've done that as a minimum. [T3, L194-195]

Responses to the trimmer questionnaire showed that not all trimmers were interested in regular CPD (only 59.1% [26/44] reported having undergone any training during the 12 months prior to completing the trimmer questionnaire). Of those who had undertaken CPD, 23 individuals provided details about the number of hours training they had undertaken (range: 4 to 348 hours; mean=60.2 hours). Just over two-fifths (43.5%, 10/23) of those who provided details about the time they had spent undertaking CPD had received between 20 and 60 hours of training. Three respondents (13.0%, 3/23) reported having undertaken over 100 hours of training. Further details relating to the CPD undertaken by trimmer questionnaire respondents are provided in Figure 5.2.

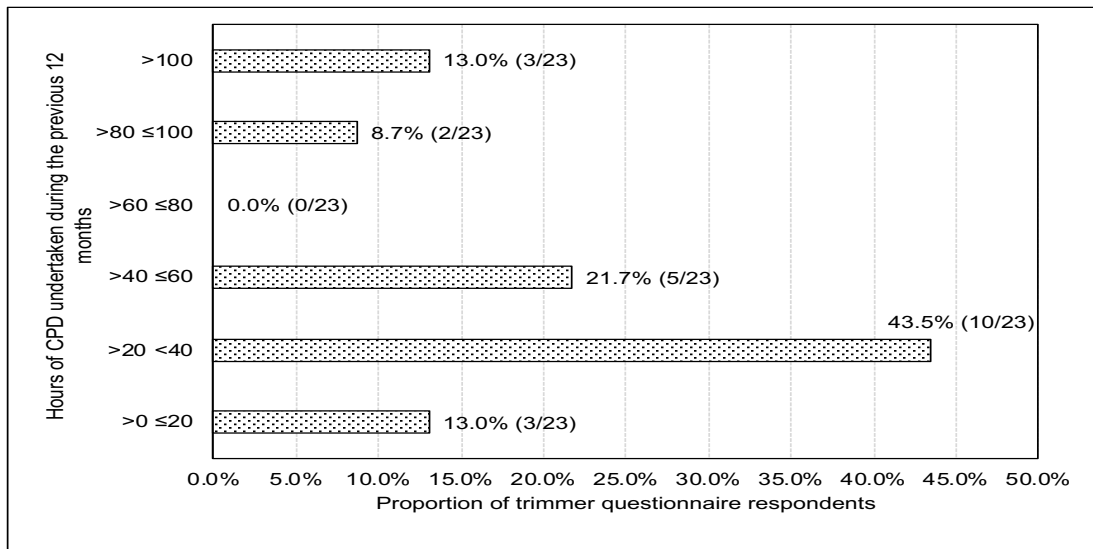


Figure 5.2 Hours of CPD undertaken by trimmer questionnaire respondents during the 12 months before they completed the questionnaire (n=23)
 CPD=continuing professional development

Trimmer questionnaire respondents provided descriptive details about the types of CPD that they had undertaken during the previous year. Responses showed that the types of activities and areas of learning that respondents considered comprised CPD varied considerably. The trimmer questionnaire respondent who had reported the maximum number of hours of training (348 hours) had spent that time undertaking self-guided research to inform writing a book about barefoot care. Other reported types of training could be categorised into equine foot-related, more widely horse-related business-related, and personal development-related. Examples of these types of training are provided in Table 5.1.

Table 5.1 Types of CPD training undertaken by questionnaire respondents during the 12-months prior to completing the trimmer questionnaire

Category of training	Examples
Equine foot	<ul style="list-style-type: none"> • shadowing another trimmer • equine foot dissection workshop
Horse	<ul style="list-style-type: none"> • massage (including Reiki and body work) • behavioural training
Business	<ul style="list-style-type: none"> • first aid at work course • information and communication technology course • photography course
Personal development	<ul style="list-style-type: none"> • performance coaching • rider biomechanics

CPD=continuous professional development

The training described by trimmer questionnaire respondents was not only broad from a collective perspective, it was also broad from an individual perspective. For example, one trimmer questionnaire respondent reported having spent 3 days shadowing and/or trimming with farriers and other trimmers, a day watching a distal limb dissection, 3 days watching a whole horse dissection, participated in two webinars (one about barefoot and the other about horse training), attended an anatomy demonstration, watched a foal hoof development video and attended a laminitis talk hosted by a local veterinary practice (total=52 hours). Another trimmer reported having spent about 4 days undertaking equine nutrition-related training, taken a 3-day clicker training course, and attended multiple lectures and conferences (subject detail not provided), as well as having spent time meeting colleagues (presumably for trimmer-related discussions but perhaps also providing social benefits).

There was also variation in the way that the training that trimmer questionnaire respondents had received had been delivered. They reported having attended training that had been delivered both formally and informally (conference attendance or meeting colleagues), directed or self-guided (taught or personal study), delivered in person or via the web (lecture or webinar), hands-on or observational (trim day or watch a video). Furthermore, some training was delivered in the UK (for example, the EPA conference [held in the UK]) whilst other training was delivered abroad (for example, the International Hoof Care Summit [held in Cincinnati, USA]).

5.3 Being a trimmer

Descriptive details about trimmers' businesses have been provided in Section 4.2.3. In contrast, this section includes contextual information about the nature of the service provided by trimmers (Section 5.3.1) and trimmers' perceptions about working outside the conventional hoof care world (Section 5.3.2).

5.3.1 The general nature of the approach of keeping a horse barefoot

5.3.1.1 A holistic and long-term approach

Interviewed trimmers considered that their perspective was much wider than just attention to how horses' hooves were trimmed.

...you just take the shoes off a horse and trim it, it's not terribly successful in terms of having a horse that can work in the way that we like to work our horses over here, which is, you know on the roads and jumping and dah dah dah and we keep them in a field and all the rest of it, so there was a huge erm...there was a huge erm layer of like practical application. [T1, L90-94]

Yeah, hooves and people and horses, the whole [both laugh]. It's not just, you know I thought it was just...when I started, I thought it was just hooves erm but you know, it's not. It is, it's such a complex subject. [T2, L631-634]

Their perspective involved not only recognising links between a horse's hooves and the rest of the horse's body, but also the impact of a multitude of wider factors. The term 'environment' was frequently used as an umbrella term for these wider factors and could include anything that trimmers perceived directly, or indirectly, affected horses' hooves.

I suppose well environment is anything really. It's you know, where the hooves are... [T2, L441-442]

So, environment, it is quite a global term, very often people think environment is about whether a horse is [not] turned out or whether it is in its field, but environment is its nutrition, its riding, you know, its day to day 'want to be', that kind of thing. [T3, L600-603]

Interviewed trimmers believed that improvements to (and deterioration of) foot functionality were caused not only by hoof trimming but also by changes to care and exercise regimens. Trimmers considered that the impact of changes to all influences needed to be monitored over time.

It doesn't need just the hoof wall, it doesn't need just the sole or a frog, it needs the rest of its body, it needs its brain, its mind, everything to be a horse and then it can have good proper muscle structure, be free to move, be free to move properly and then it can form its own feet and it can compensate for the things we do to it, freely. [T4, L133-137]

...if we want to fix things, we have to fix the environment the horse is in in the first place and that means its feed, its mind, everything about what we do... [T4, L137-139]

We take very meticulous notes about the hoof because we are trying to take records of what the hoof is like today and then compare them with what they were like the last time we saw them, to give us an idea as to whether the hoof health is improving or whether the measures we have put in place have actually not helped or caused the foot to go back a step, and therefore we need to change the management method or the advice that we gave last time. [T5, L271-276]

5.3.1.2 Client characteristics (as perceived by trimmers)

Interviewed trimmers highlighted that the time it took for a horse to move from being shod to being comfortable barefoot varied from zero to several years, depending on individual circumstances. Barefoot proponents refer to this period as the 'transition period'.

But I mean, some people don't have a problem [...] some people just pull the shoes off and off they go. Erm...but it all just depends on the horse. [T2, L487-489]

...it is variable upon the horse, but I would, you know, say if a horse has got reasonably good structures but it has just been shod but the foot is reasonably good [...] you've got to be looking at a 10- to 12-week period - the same as you would be getting a horse fit to go hunting or something like that... [T3, L589-593]

...by taking the shoes off the horse is sore so therefore you are causing harm. The problem is, you're not the one causing the harm, the harm is already there [...] this damage, it is going to take several years to really get back to where it needs to be. [T4, L543-546]

Interviewed trimmers highlighted that most of the horses they attended were kept for leisure purposes. Similarly, data from the trimmer questionnaire showed that just under half (45%, 15/33) of respondents believed that between a half and three-quarters (51 to 75%) of their clients considered that their horses were pets, and a further 15.2% (5/33) believed that nearly all (76% to 100%) of their clients considered that their horses were pets. Fewer than a tenth (6.3%, 2/32) of trimmer questionnaire respondents believed that more than half (51% to 100%) of their clients considered that their horses were working animals (for example, for competition or financial gain).

A lot of my [clients'] horses are pleasure horses... [T5, L399]

...they might do some low-level competition they are into improving themselves, they have regular lessons, etc., but they are not aiming to go around Badminton... [T5, L650-651]

...sort of happy hacking, the bit of the odd competition or pleasure ride level... [T3, L631-632]

In terms of keeping a horse with foot-related issues barefoot, interviewed trimmers considered that, compared with conventional approaches, a barefoot approach led to better results for some horses with foot-related issues (specifically, those with caudal heel pain/navicular disease) and highlighted that improvements persisted.

I think, according [to] the lameness, the veterinary lameness books, there is a kind of only a 17% chance that you can recover the horse to the level of soundness that he was at pre-navicular using shoeing techniques, but actually our, our success rate is nearer 95% - there are very few horses that we can't recover from navicular. [T5, L429-433]

... the level of horses back in work post rehab is between 75, I think it's between 75 and 80% and that's back in the same level of work or higher before they went lame so not just pootling around the block. If they were doing dressage they were doing dressage up to whatever, if they were hunting [...] but that's horses, you know, 2 years down...all

the horses are at least 6 months out of rehab and they go back to however long I have got records for so you have got the horses that are still in work 6, 7 or 8 years down the line, which to me is the important thing. [T1, L331-340]

However, interviewed trimmers also recognised that sometimes their approach did not result in improvements, and at other times it was only partially successful. Partial success was considered to offer the horse some benefits. Limitations to achieving success included prior damage to the foot and a lack of knowledge on the part of the trimmer (perhaps associated with the infancy of the approach). One interviewed trimmer also considered that some horses were never going to have high functioning bare feet.

Obviously, you can't fix everything. [T4, L168]

Nobody can help every horse, there are always times when you have reached the limit of your knowledge and you still haven't been able to get the horse sound [...] although even that can be rewarding because usually you can improve the health of the foot enough so that they can go back in shoes and be comfortable, whereas before that even in shoes they were very, very lame. [T5, L417-422]

...some horses just don't have the capability of achieving that foot that is capable of truly proper competition high-level competition barefoot because of previous damage or just poor genetics, you know. Some people have the perfect body shape for playing basketball...other people just are never going to have that body shape you know. [T5, L575-577]

5.3.1.3 Horse owner input

Interviewed trimmers highlighted that they relied on owners to manage the day-to-day factors that affect horses' feet. They considered that to effectively manage these factors owners needed to be engaged in the process of caring for their horse and they needed to pay constant attention to detail.

...if what you basically want to do is have your horse on a livery yard and it be ready to go regardless, and you are not that bothered about whether its teeth were done or whether its tack fits or anything else it's not going to work for you. It's not going to suit you because you are not going to pay enough attention basically. [T1, L455-458]

...have to be really attentive to every slight change. So, you have to really care and look at every whole bit about it... [T4, L392-394]

...if they just want somebody to turn up, fix the horse and they don't have to worry about feet and worry about drying out the feet, picking out the mud, putting in field paste or whatever they are going to do, then if their heart's not in it, it's not going to work. [T6, L538-541]

5.3.2 Trimmers' perceptions relating to working outside the conventional hoof care world

5.3.2.1 General comments

Interviewed trimmers articulated a fear that operating outside of the conventional hoof care world would result in them being subject to negative behaviours from others. Specific fears were of criticism in general and a fear of being prosecuted for illegally practising farriery. The fear of being prosecuted for illegally practising farriery was experienced even though, at the time of the interviews, there was no legal definition of a horseshoe.

Whereas I think with a trimmer I think if something goes wrong, erm I think there is, there's a lot more uproar [than if the same happened to a farrier]. I think people throw up their arms a lot more if there's something wrong, whether or not that's been the trimmer's fault. [T2, L600-603]

I couldn't even do something like put a cast on and make a rudimentary shoe with cast material because even that is considered to be a shoe so, you know, I have got to be very careful... [T5, L1056-1058]

Trimmer questionnaire respondents highlighted feelings of isolation and articulated a view that others did not value what they do.

It is quite isolating – people assume I'm an uneducated idiot, laming horses and ripping people off. [QR_T22]

Being denigrated by other professions even though our methods are totally proven and work. [QR_T51]

5.3.2.2 Keeping horses shod

Keeping horses shod was not discussed during the trimmer interviews. However, a question about keeping horses shod was included in the trimmer questionnaire and respondents' views ranged from passionate opposition based on shoes being used to mask an underlying welfare issue, to a pragmatic acceptance that, in some circumstances, shoes were a legitimate option for a horse.

They are barefoot. We don't give them barefoot. It comes as standard. We take away their health, and when they can't perform, we nail metal supports on them. [QR_T22]

A horseshoe is a tool. It is a valid tool for a specific job. There will be situations where a shoe is an appropriate solution to a problem (although often there are other valid solutions). Throwing a tool out of your toolkit limits your options. Better to understand the strengths and weaknesses of that tool and use that knowledge to guide you to use the tool in the right circumstances and not in the wrong ones. [QR_T11]

Trimmer questionnaire respondents were asked to indicate (by selecting either 'Yes' or 'No') whether they had ever recommended that a horse should be shod. A higher proportion of respondents had (rather than had not) recommended that a horse should be shod (57.1% [16/28] versus 42.9% [12/28]).

The reasons that trimmer questionnaire respondents had advised that a horse should be shod related either to the horse owner's health and/or the condition of the horse's hooves.

I had a client with a back problem for whom bending down for long enough to fit/remove a hoof boot was not possible. [QR_T12]

Growth rate too poor, recommended shoes for one or two shoeing cycles to grow more hoof. [QR_T48]

5.3.2.3 Trimmers' experiences and opinions relating to farriers

Interviewed trimmers had some very complimentary points to make about some of the work carried out by farriers; specifically, admiration for the work that they are able to do and the positive benefit that this work has for horses.

I've come across some farriers who are excellent barefoot trimmers...
[T5, L520-521]

I have listened to some of the talks that farriers give about the work that they have done in those, and, you know, and looking at the work, ooh, I don't know, I don't know that I want to do that work myself, but I am glad for that horse that there is somebody who is very skilled to be able to do that. So, so, and that's, and keep that horse in as best a position as possible for that moment in time. [T3, L356-360]

One interviewed trimmer highlighted having several farriers as friends but emphasised that these were all individuals who had abandoned shoeing and whose businesses now only provided barefoot care. This suggests that, for some, the differences between the conventional and barefoot hoof care communities, in terms of practices and beliefs, may be too wide (at least for some) for friendships to be forged. This interpretation is supported by the anecdotal evidence of farrier hostility provided by a different interviewed trimmer; however, her personal experience had been largely positive, and she articulated a strong desire to have better (working) relationships with farriers.

Oh, they hate us mostly erm...several have refused to talk to me. I have not had any outright aggression, but I know colleagues who have, and it's got really nasty and you know, hate campaigns and... [T6, L191-193]

I would love to work with some farriers. I almost work with one now, you know, we have banter and... but not, you know, it would be really good... [T6, L666-668]

5.3.2.4 Trimmers' experiences and opinions relating to veterinary surgeons

Interviewed trimmers indicated that they only interacted on a professional basis with veterinary surgeons on occasions when a horse had a foot or foot-related pathologic condition(s). In such cases, trimmers' experiences had been that veterinary surgeons had been unable to comprehend their approach.

I always send a report to a veterinary surgeon if I am working with a veterinary surgeon on a case erm to tell them how they are getting on and what are the things I've done to help improve the, you know, the horse's hoof, but erm... it seems to just go over their head because it's completely alien to them, the methodologies that we use. [T5, L454-458]

Interviewed trimmers expressed a repeated desire for veterinary surgeons to be more open-minded, particularly in circumstances when conventional approaches to foot-related issues were limited.

But I wish the veterinary surgeons would actually take a bit more note, you know, instead of being defensive say, let's have a look at why this has been successful. [...] but look at the horse and watch. They recover, and they get better. [T4, L225-227]

But I suppose what I find frustrating and you know I have found it frustrating for years, is that I wouldn't mind veterinary surgeons being snotty about barefoot if actually, they had loads of better options, but very often they don't, and certainly with the horses I see they don't. [T1, L1121-1134]

Although one trimmer highlighted several occasions when veterinary surgeons had been actively hostile (quotes omitted to preserve anonymity), in general, reports were of veterinary surgeons behaving towards trimmers in a passive-aggressive manner.

So, they are not rude to you when you make a point to go and see them, visit them, to talk about the horse. They are not rude, but I just get the sense that I might as well have talked to the brick wall. They are perfectly civil and polite but, you know, that's about it really. [T3, L710-713]

One interviewed trimmer considered the attitudes of veterinary surgeons to trimmers depended on their seniority. She suggested that senior veterinary surgeons were so embedded in conventional hoof care (which included delegating hoof-related issues to farriers) that they saw no need for an alternative approach. Further, discussions she had had with veterinary students had led her to believe that the students felt that they were not equipped with sufficient knowledge to discuss the issue.

I don't think it's even a conscious thing, I think because shoes were the norm for so much of the horse world, and certainly for most of the vets who are senior vets now it's been the norm their whole professional lives, one they have never thought about anything else and two really their responsibility kind of stops at the coronary band. [T1, L1073-1077]

But I think that might be back to, partly what the vet students say is that they are not taught enough about it to feel confident about having a sensible discussion. [T1, L405-406]

5.4 Summary

The trimmer interview and questionnaire data presented in this Chapter show that individuals become trimmers for a variety of reasons (to help their own horse, out of curiosity, or as a new career). Their approaches to initial training vary (ranging from *ad hoc* discussions with individuals to formal courses) and some seem more committed to CPD than others.

There is a shared view amongst trimmers that keeping horses barefoot is a holistic, long-term approach to horse care. Trimmers explained that there could be some delay (between zero and several years) between shoe removal and a horse being comfortable barefoot (the transition period). Trimmers rely on horse owners to manage the day-to-day factors that affect horses' feet and consider that to effectively managing these factors, owners need to be involved in the process of delivering care and need to pay constant attention to detail.

In general, trimmers experiences were that conventional hoof care providers (veterinary surgeons and farriers) tended not to react positively towards them but, at the same time, tended not to be actively hostile. Trimmers' consider that keeping horses with foot-related conditions barefoot is very beneficial for some horses but less successful for others. Some trimmers consider that applying horseshoes cannot be anything other than detrimental, whilst others are more pragmatic and considered that wearing horseshoes can be a legitimate option for some horses.

6 The provision of foot-centred care: trimmers' perspective

6.1 Overview

The data presented in this Chapter relate to the second element of the overarching conceptual model, namely the provision of foot-centred care. This Chapter primarily includes data collected during the interviews with trimmers, but also includes some results (where relevant) from the trimmer questionnaire. The data show that trimmers view keeping horses barefoot as an approach that is characterised by horses' feet being central to all care and exercise decisions. Trimmers set foot functionality goals and a cyclical management process is used to meet those goals (described in Section 6.2). The cyclical management process (which I have termed the 'balance management cycle') comprises three phases: Assess, Plan, and Do. These three phases are discussed in Sections 6.3, 6.4, and 6.5 respectively.

6.2 Introduction to the balance management cycle

Trimmers considered that foot-centred care was about creating balance and that foot-related issues affected the horse's body and body-related issues affected the horse's feet.

I always tell them it's like a sealed system, the whole body. [T4, L312]

So, and this is something that you see also with horses with the collateral ligament damage in front, that they will grow deviations in the hoof capsule and the further up the limb the injury is the bigger the deviation, which is equally fascinating... [T1, L649-651]

...very often a horse that has been sore in its feet for a long time has got body issues all over, you know, it's been holding itself tight. [T3, L653-654]

Given that trimmers believed that the functioning of the horse's body was influenced by a wide range of factors, including how the horse was kept, it was not surprising that trimmers considered each horse as an individual existing within its own context.

...but the most important thing is how we keep them and how we breed them and how we bring them up... [T4, L124-125]

...if we want to fix things, we have to fix the environment the horse is in in the first place and that means its feed, its mind, everything about what we do... [T4, L137-139]

Findings from my research showed that the 'balance management cycle' is an ongoing cycle (see Figure 6.1). After an initial Assessment, a Plan detailing how barefoot care should be delivered was developed. The Do phase of the cycle involved implementing the Plan. The effectiveness of the Plan was continually assessed/re-assessed. Each phase of the cycle was a co-production requiring input from (as a minimum) the trimmer and the horse owner. The extent of the input required from the trimmer and the horse owner varied depending on individual circumstances (including the current state of the horses' feet and the owner's resources [including their knowledge]). The involvement of trimmers and horse owners in the Assess and Plan phases of the cycle changed over the period it took for a new client to become an established client. Over time, trimmers' input into the Assess and Plan phases diminished and the horse owners' input into these two phases increased. The Assess, Plan and Do phases of the balance management cycle are discussed in detail in Sections 6.3, Section 6.4 and Section 6.5, respectively.

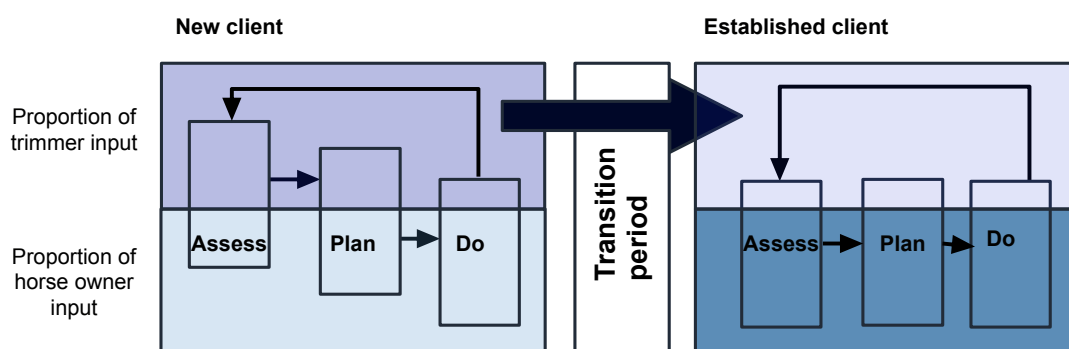


Figure 6.1 An illustration of how the relative responsibility for managing the balance management cycle changes over time

6.3 *The balance management cycle: Assess*

6.3.1 **Setting foot-functionality goals**

Interviewed trimmers highlighted that their initial assessment (carried out during the trimmer's first visit to a horse) was their first opportunity to reach an opinion about how much the functionality of a horse's feet might improve if their approach to barefoot care was implemented. Their opinion of the horse's foot functionality potential informed discussions with the owner around setting a foot functionality goal. The goal also provided a vision (for the owner) of a possible future and demonstrated that the trimmer's interest in the horse and/or their relationship with the owner was not a short-term one.

One interviewed trimmer considered that the lowest acceptable goal should be the level of foot functionality that allowed the horse to undertake the minimum amount of activity required for daily life without welfare being compromised. She considered that to remove shoes in cases where this minimum level of functionality was not possible was ethically unacceptable as it would leave the horse less comfortable than before her involvement.

...that the horse can be in its stable comfortably, in its field comfortably and it can get between the two comfortable. And, if the foot in of itself cannot do that, that other measures are there, and in place, and will be used to make sure that the horse remains comfortable in all of those situations, otherwise leave the shoes on. [T3, L476-479]

Interviewed trimmers referred to the interval between shoe removal and achieving an acceptable level of foot functionality (the [initial] goal) as the 'transition period'. They highlighted that the length of the transition period varied.

If you've got something that has been shod for several years you are looking at it as a 3-year transition because you've got not just the fact that you've taken the shoes off and you need the capsule to grow out and thicken and strengthen, but you've got all the soft tissues, all the blood vessels, the whole structure... [T4, L361-364]

Again, it is variable upon the horse, but I would, you know, say if a horse has got reasonably good structures but it has just been shod but the foot is reasonably good, reasonably operational, I would have thought with the ligaments and tendons within the foot itself you've got to be looking at a 10- to 12-week period – the same as you would be getting a horse fit to go hunting or something like that... [T3, L589-593]

6.3.2 The factors that were considered as part of a trimmer's assessment

Assessments were comprehensive. In addition to determining the horse's foot functionality potential, the condition of the horse's feet, the horse's diet, movement and other factors that might affect the horses' feet were taken into consideration when setting goals. Trimmers highlighted that sometimes the assessment process was complicated, and in such cases specialist knowledge and analytical skills were required to help identify the underlying causes.

...if you come across a horse with laminitis you have got no idea what caused the laminitis – it might be toxic overload, it might be the liver's not functioning right, it might be the gut's not functioning right or whatever. [T5, L277-279]

So, you have to be a detective and figure out what it is that you are doing with your horse, in your situation, that you might need to change... [T4, L321-322]

The assessments undertaken by trimmers included a general overview of the horse's current health as well as any issues that might have arisen since their previous visit. Nearly all of the trimmer questionnaire respondents reported that during most visits they always did two things: (i) checked the general condition of the horse (93.8%, 30/32) and (ii) asked the owner to provide details about any health issues that had arisen since their previous visit (93.8%, 30/32). A slightly lower proportion of trimmer questionnaire respondents reported that during visits they always asked the owner for information about any husbandry or exercise changes that had occurred since their last visit (75.0%, 24/32), and a further 18.8% (6/32) reported that they often asked about husbandry and exercise changes.

6.3.2.1 Assessed factors: the horse's feet

Trimmers believed that examining a horse's hooves yielded clues about the aspects of the horse's living conditions that needed to be changed to enable the condition of that horse's feet to stay the same or to improve.

It's about reading the hoof and if the horse is footy it's telling you something; you need to change your management; you need to change what you're doing. You might have to go out with boots for a couple of days erm but ultimately, it's about changing what's causing the 'footiness'. [T2, L430-434]

Trimmer questionnaire respondents highlighted that the rate at which horses' hooves grew could be influenced by multiple factors.

How much work the horse is undertaking. The more work, the more the hoof will grow. The hoof is always trying to find an equilibrium with destruction and creation of hoof. [QR_T32]

Improving horse health will improve hoof growth and quality. Nutrition is important, but that includes whether the digestion is processing the nutrition and the circulation is delivering the nutrition to the hooves.

[QR_T16]

It was, however, also recognised that assessing hoof growth rate was problematic as it was necessary to take into account the rate of wear, which was also multifactorial.

Rate of wear also important which depends on abrasiveness of the ground, softness of the horn, type of exercise, with or without boots.

[QR_T40]

Hoof wall thickness make hoof appear to be growing faster because they wear better. Thinner walls wear easier so therefore appear not to grow as much. [...] Some horses don't get as much exercise as others on hard and more abrasive surfaces so don't appear to wear as much.

[QR_T19]

Foot appearance and functionality

The term 'rock-crunching' was used by some trimmers to describe the pinnacle of foot functionality. The rationale behind the term was that a horse with optimal quality feet (i.e., optimal foot functionality) would be able to move without discomfort over rocky terrain.

...they had the most fantastic feet by the time they left, absolutely gorgeous, rock crunching feet you would not wish for better feet on any horse... [T1, L492-494]

One interviewed trimmer highlighted that a foot that looked healthy was not necessarily a high functioning foot and suggested that the lack of a correlation might be due to a lack of knowledge.

...and sometimes there are frustrating cases where the foot doesn't actually look that unhealthy, but we just can't mend whatever the problem is. Sometimes we are not even aware of what that problem is and we, you know, we've done everything we can to get the external hoof as healthy as we possibly can but there is clearly something happening inside that we are not erm... fully aware of and can't fix, which is really frustrating. [T5, L433-438]

Another interviewed trimmer observed that poor foot morphology was not necessarily an indication of low foot functionality.

...and they would go over any ground quite happily although their feet did not look terribly pretty... [T1, L906-907]

She considered that appearance, rather than a current indicator of functionality, was likely to be evidence that, in the past, other parts of the horse's body had been put under stress.

I have got a couple of horses here that have got really pretty feet and they are fantastic rock crunching horses, but the more you have got injuries and pathology and past history the less likely you are to have beautifully pretty feet that are also high performing feet. [T1, 143-146]

However, trimmer questionnaire respondents (who provided information in a free-text box) did link hoof morphology with growth rate.

...horses with poor hoof morphology and especially thin soles tend to have a much slower growth rate. I have also observed better growth with improvements to the hoof pastern axis... [QR_T12]

Injuries to hoof wall (side with missing part will grow faster)... [QR_T23]

Methods used to evaluate feet

Interviewed trimmers used multiple methods to evaluate horses' feet. One interviewed trimmer made a judgement about the functionality of a horse's feet using three senses: sight, sound and smell.

...and you could just look at them and they were symmetrical erm...you know they didn't smell, they were functional erm...and they always just, it seemed ridiculous that they always just looked pretty. [T2, L57-60]

...she always had lovely feet. I mean she would trot up the road and they're like percussion instruments. [T2, L67-68]

One assessment method used by trimmers was to check for digital pulses. Just over half (56.3%, 18/32) of the trimmer questionnaire respondents always checked for digital pulses, whilst a further fifth (21.9%, 7/32) often checked for digital pulses. The remaining fifth of the trimmer questionnaire respondents checked for digital pulses

sometimes (15.6%, 5/32) or rarely (6.3%, 2/32). None of the trimmer questionnaire respondents reported never checking for digital pulses.

Another assessment method involved using hoof testers. Hoof testers are metal instruments that are designed to apply pressure to the foot. They are used to test to see if any part of the foot is more sensitive than expected [225]. At their simplest, they comprise a set of metal jaws that can be opened quite wide and squeezed by hand [225]. One questionnaire respondent explained that she used hoof testers to give her information about the foot and how it should be trimmed, rather than as a diagnostic tool.

I may use hoof testers to determine if there was soreness associated with a defect such as a cavity, or to help to inform the appropriate trim, but this would only ever be informative, not diagnostic - in all cases of lameness, my advice would be to contact a veterinarian. [QR_T4]

None (0%, 0/31) of the trimmer questionnaire respondents reported always using hoof testers before trimming and less than a tenth (6.5%, 2/31) of respondents used them often before trimming. The most commonly reported frequency of using hoof testers before a trim was sometimes (41.9%, 13/31) and exactly the same proportions of remaining questionnaire respondents either used them rarely (25.8%, 8/31) or never (25.8%, 8/31).

Some interviewed trimmers used a grading system to describe foot functionality. One grading system (originally developed by the IAEP) is called the Spectrum of Usability. This system involves assigning a score to seven different anatomical features of a horse's foot and then using an average of these scores to indicate the overall condition of the foot. The horse's four scores (one for each foot) are then combined into an overall score that ranges from one (very poor) to ten (excellent). Scores are linked to the level of exercise that is needed to improve (or maintain) the horse's current level of foot functionality.

So,... the most common one is a 5 or a 6 in terms of hacking out... if they're hacking out it is a 5 they can be mainly booted unless on very smooth surfaces and jump to 2ft on soft ground. By the time they are getting to a 6 they are hacking out mainly unbooted, booted only for challenging surfaces or long rides and they can jump to 3ft... [T5, L 389-393]

This scoring system is not rigid. One interviewed trimmer explained that scores were assigned on a scale of one to ten and then combined to derive an overall score but that she might adjust the combined overall score as she considered that (in terms of foot functionality) some anatomical features played more central roles than others. The central sulcus of the frog was highlighted as being particularly important.

Whereas, if you've got aspects of the foot that are very strong but, say, the frog is very, very weak – so, you've got a split sulcus or something like that – then you might drop the work down, you know, drop that overall rating down on that particular foot because that frog is quite an important structure for the delivery of stimulus and control of stimulus in the back of the foot. [T3, L215-219]

Trimmer assessments also involved a physical examination of the horse and watching the horse move.

...then I'll start thinking about trimming the foot. And, and as you're doing that, and you might have felt it as you were picking the feet up as well, you will be feeling where a horse is tight, stuff like... when you are handling the legs and this manoeuvre may give you other information about what the horse is feeling in his feet, feeling in his body, as well as information you are getting from the owner. [T3, L505-509]

...we are very erm... interested in how the horse moves, because how the horse moves gives a lot of information about if there are still any areas of discomfort in the hoof or the body that are causing problems other than the hoof. [T5, L266-269]

One trimmer questionnaire respondent described the factors she would take into consideration when determining whether it was necessary to see the horse walk or trot.

In relation to walking and trotting up horses - ideally this would always be done in all cases before and after trim every time - the reason I was unable to select always is because in some cases on some occasions it isn't possible. I would not ask a client to attempt to trot a horse if there was an apparent lameness visible in walk for example. On a new client assessment, I would not carry out a trim if I was not able to freely and

extensively gait analyse first. On subsequent visits it is always attempted but is sometimes not possible - case in point - I have a horse I trim who is recovering from gastric surgery - I would not ask the owner to trot the horse up because it is on box rest under vet instructions but allowing its feet to over grow would be detrimental. [QR_T4]

Nearly all (90.6%, 29/32) trimmer questionnaire respondents often or always watched the horse walk before trimming and nearly two-thirds (65.6%, 21/32) always or often watched the horse trot before trimming. Further details about the frequencies with which trimmers watched the horse move (at walk and trot) before trimming are shown in Figure 6.2.

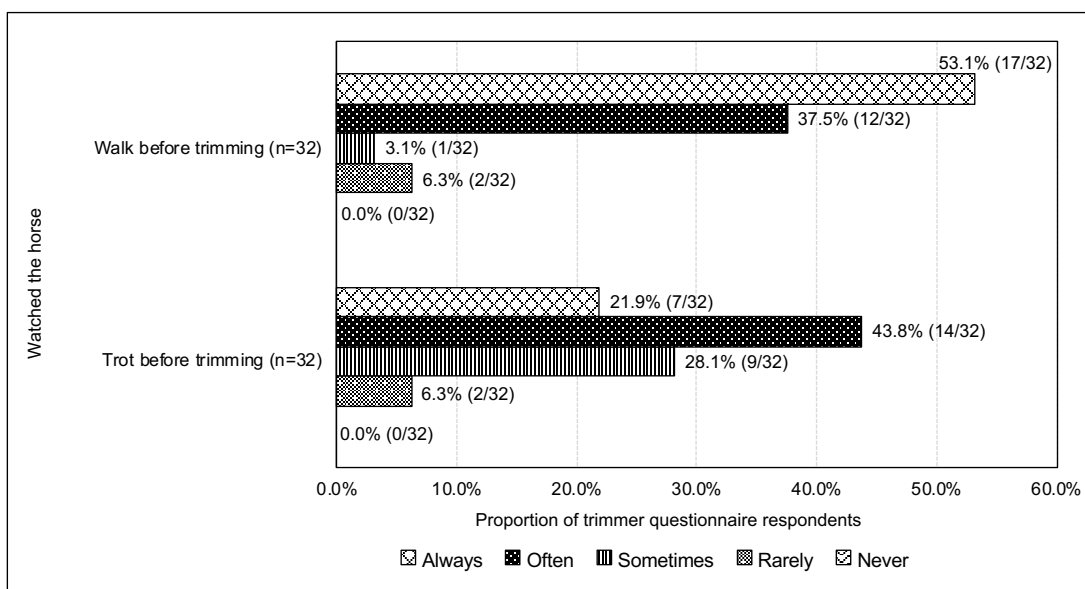


Figure 6.2 Frequency with which the trimmer questionnaire respondents reported watching horses walk and trot before trimming (n=32)

6.3.2.2 Assessed factors: food-related

The horse's weight

Obesity was described by a British Equine Veterinary Association representative as being '*...the gravest threat facing horses, which is resulting in hundreds being put down every year.*' [226]. Obesity has been demonstrated to have negative consequences on equine health, including increased risk of laminitis [227] and a poorer prognosis for recovery from laminitis [228]. Laminitis is a condition that can cause the horse considerable pain due to inflammation within the hoof capsule. It has also been suggested that obese horses are at an increased risk of orthopaedic disease due to increased loading of their joints [229].

The prevalence of obese and overweight horses within the UK is high. Results from a questionnaire-based survey across the UK that was published in 2015 (n=792) showed that owner determined prevalence of obesity was 31% [227]. Results from a slightly later study (published in 2017, n=446) which assessed the weight of ponies aged ≥ 7 years living within a 50-mile radius of The Royal Veterinary College (Hertfordshire, UK), found that 72% were overweight or obese [230].

Nearly all (93.8%, 30/32) trimmer questionnaire respondents reported that at each visit they always assessed the general condition of the horse (which included assessing weight and coat condition). The remainder of the trimmer questionnaire respondents were equally split between those who carried out this type of assessment often (3.1%, 1/32) or sometimes (3.1%, 1/32).

Effect of dietary factors on barefoot horses' feet

In line with the belief expressed by trimmers that horses' feet were a product of multiple influences, trimmers identified a link between foot morphology/soundness and what the horse ate and/or how that food was metabolised. Key results from the trimmer questionnaire are reported in the text and full results are presented in Figure 6.3.

Nearly all of the trimmer questionnaire respondents strongly agreed (57.1%, 16/28) or agreed (35.7%, 10/28) that a flush of grass could lead to 'footiness' (a colloquial term for a low level of lameness). One of the remaining respondents neither agreed nor disagreed (3.6%, 1/28) and the other strongly disagreed (3.6%, 1/28) with this view. Furthermore, nearly all of the trimmer questionnaire respondents strongly agreed (72.4%, 21/29) or agreed (24.1%, 7/29) that there was a link between metabolic issues and 'footiness', whilst the remaining respondent neither agreed nor disagreed (3.4%, 1/29) with this view.

...there is a huge number of horses that had 'footiness' which was down to metabolic or dietary factors. [T1, L308-309]

One interviewed trimmer considered that she held a view that contrasted with that of many other barefoot trimmers, namely that gut health was key to achieving high functioning hooves.

There are lots of barefooters who insist that if a horse is on grass it will never achieve proper performance barefoot but actually what we have found is the horses can be quite happy on grass, but you have to make sure that their gut is as healthy as possible. [T5, L595-598]

She highlighted that her experience had been that focusing on improving gut health had had beneficial results for horses with laminitis and had also had positive long-term benefits for horses with Cushing's disease (a condition more correctly known as pituitary pars intermedia dysfunction [PPID]).

...improving gut health, which has been a massive step forward for us in our understanding of not just proper laminitis but also low-grade hoof pain. [T5, L321-323]

...improving gut health and it's amazing the results it is having on our Cushing's cases on improving their blood profiles quite dramatically and sustaining that improvement by keeping the gut health much, much better... [T5, L833-835]

Approximately three-quarters of the trimmer questionnaire respondents strongly agreed (44.8%, 13/29) or agreed (31.0%, 9/29) with the view that poor nutrition led to a disruption of the white line (an anatomical feature of horse's feet), whilst approximately one fifth neither agreed nor disagreed (17.2%, 5/29). Two other trimmers provided an opinion about whether poor nutrition led to disruption of the white line; one disagreed (3.4%, 1/29) and one strongly disagreed (3.4%, 1/29).

But if you feed them wrongly they go to [expletive]. They have stretched white lines, they have sensitivity. [T4, L310-311]

Trimmer questionnaire respondents held mixed opinions about whether there was a link between diet and flat feet. Nearly half of the trimmer questionnaire respondents strongly agreed (24.1%, 7/29) or agreed (24.1%, 7/29) that such a link existed, but equal proportions of respondents neither agreed nor disagreed (24.1%, 7/29) or strongly disagreed (24.1%, 7/29), leaving only one respondent who disagreed (3.4%, 1/29) that such a link existed.

One of the interviewed trimmers linked equine metabolic syndrome (a condition that is reported to frequently be the underlying cause of laminitis [231]) with a distinctive pattern (pock marks) on the soles of horses' feet. However, support for this link

amongst trimmer questionnaire respondents was limited; fewer than a fifth of respondents either strongly agreed (10.3%, 3/29) or agreed (6.9%, 2/29). Most respondents neither agreed nor disagreed (58.6%, 17/29), and the remainder either disagreed (6.9%, 2/29) or strongly disagreed (17.2%, 5/29) that such a link existed.

You've got horses with you know, equine metabolic syndrome and they're, they're [unclear] and they're struggling, and they've got you know pockmarked soles... [T2, L846-848]

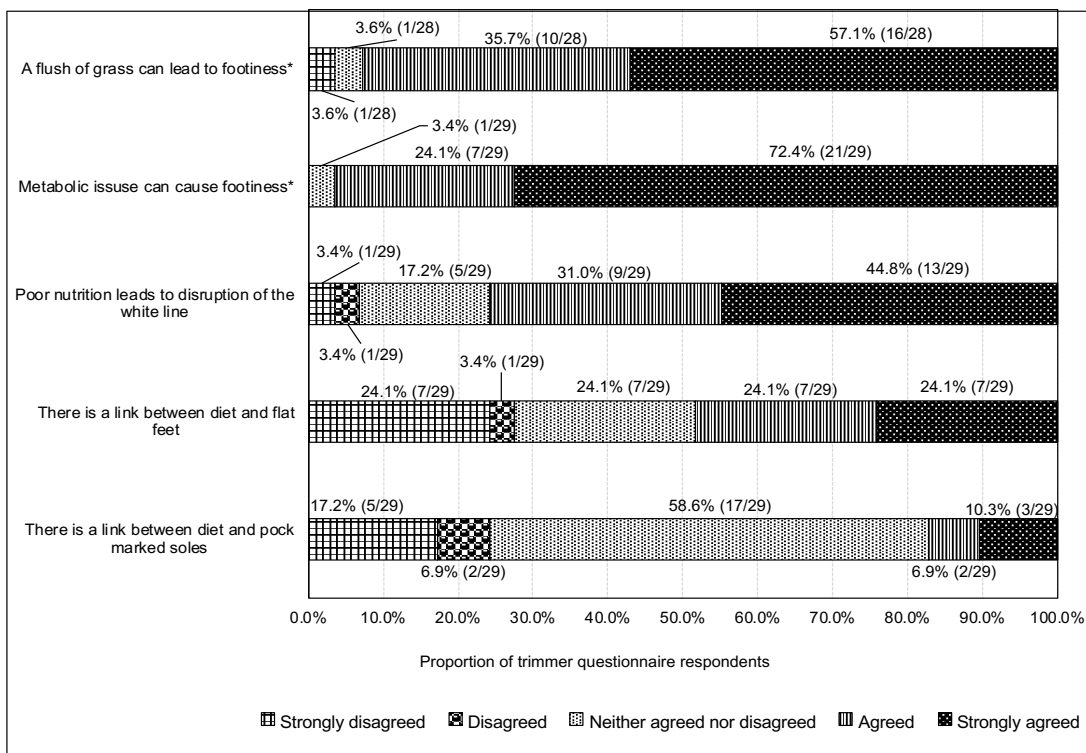


Figure 6.3 Trimmer questionnaire respondents views about the effect of dietary factors on barefoot horses' feet (a flush of grass can cause footiness: n=28; all other views: n=29)

* Zero values not displayed

Diet formulation principles

When thinking about the appropriateness of a diet, a key factor for interviewed trimmers was the horse's weight. This view was shared by trimmer questionnaire respondents, nearly all of whom indicated that the horse's weight was an important consideration when formulating a horse's diet (strongly agreed: 86.2%, 25/29; agreed: 10.3%, 3/29), with only one respondent being ambivalent (neither agreed nor disagreed: 3.4%, 1/29). One trimmer linked being too thin with an inability to efficiently metabolise nutrients and considered that this had a consequent effect on a horse's feet.

The main thing with feeding is are the horses too fat, are the horses too thin? Is the primary one. So, are you feeding too much energy or not enough? Usually, a lot of people are feeding too much. So, the big one is about getting the weight down. [T3, L824-828]

You know when you've got a starving horse whose guts aren't working properly, erm and you've got bad bacteria in the gut erm and they're skin and bone you know, that affects the feet. [T2, L840-844]

One interviewed trimmer highlighted that providing a broad array of nutrients was important.

So, the next thing is to make sure that the horses are getting a broad range of vitamins and minerals, amino acids and that sort of. So, the basic nutrition is appropriate. [T3, L826-828]

Interviewed trimmers identified guiding principles that they believed should be taken into account when formulating barefoot horses' diets. The extent to which these principles were important to other trimmers was explored using the trimmer questionnaire survey. Key results from the trimmer questionnaire survey are reported in the text and full results are presented in Figure 6.4.

Interviewed trimmers considered that diets should contain low levels of sugar and low levels of starch. There was strong support for these beliefs amongst trimmer questionnaire respondents. Most trimmer questionnaire respondents either strongly agreed (62.1%, 18/29) or agreed (27.6%, 8/29) that diets should contain no or low sugar content, whilst the remainder of respondents were ambivalent about the sugar content of a horse's diet (neither agreed nor disagreed: 10.3%, 3/29). Similarly, most trimmer questionnaire respondents strongly agreed (44.8%, 13/29) or agreed (34.5%, 10/29) that diets should contain no or a low level of grain, whilst the remainder were ambivalent about the grain content of a horse's diet (neither agreed nor disagreed: 20.7%, 6/29).

...low sugar and low starch... [T1, L222]

...but the standard rules in the industry are minimal or no molasses. I actually find that as long as it is minimal molasses, a few molasses in the chaff doesn't really cause a problem, try and avoid grains at all costs, that seems to have a direct impact on that hoof comfort. [T5, L592-595]

Some trimmers considered that it was important to feed a diet that contained a high proportion of roughage. This view was supported by approximately three-quarters of trimmer questionnaire respondents who either strongly agreed (58.6%, 17/29) or agreed (17.2%, 5/29) that it was important to feed *ad libitum* forage, although the remaining quarter of respondents neither agreed nor disagreed (24.1%, 7/29) with this belief.

They need to be considering using a high roughage diet rather than a high grain diet and all that kind of stuff. [T3, L835-836]

There are companies in the UK that offer forage analysis services (for example, Simple Systems Horse Feeds and Haygain) and soil analysis services (for example, Forage Plus) to horse owners. The purpose of these services is to help the owner understand exactly what they are feeding their horse. One interviewed trimmer highlighted having used both such services.

...well actually we had already done soil analysis here and forage analysis... [T1, L227-228]

Approximately half of trimmer questionnaire respondents either strongly agreed (6.9%, 2/29) or agreed (48.3%, 14/29) that undertaking forage analysis was important; however, approximately two-fifths of respondents neither agreed nor disagreed (41.4%, 12/29) that it was important. There was less support for the view that undertaking soil analysis was important. Approximately one tenth of trimmer questionnaire respondents either strongly agreed (6.9%, 2/29) or agreed (3.0, 9/29) that undertaking soil analysis was important, and two-fifths of respondents neither agreed nor disagreed (44.8%, 13/29) that it was important.

Interviewed trimmers expressed the view that it was not appropriate to feed products that horses would not come across in the wild and one interviewed trimmer considered that synthetic nutrients did not deliver benefits.

So, bring everything back to a very strong base of just simple grass hay, not rye grass, keep well away from rye grass and single cut hays – they're not good... [T4, L522-523]

Cod liver oil, fish oils – I haven't seen them with a fishing rod. You know, the seaweeds the same sort of thing, perhaps little bits and pieces if they live by the sea but it is not a main staple. [T4, L583-585]

...which didn't give them the breadth of nutrients and the nutrients they were being given otherwise were synthetic nutrients that, to me, didn't seem to be effective enough because the horn quality of the hoof wasn't good enough. [T5, L555-557]

There was strong support amongst trimmer questionnaire respondents for feeding natural products. Nearly two-thirds of trimmer questionnaire respondents either strongly agreed (27.6%, 8/29) or agreed (37.9%, 11/29) that a horse's diet should not include any synthetic ingredients.

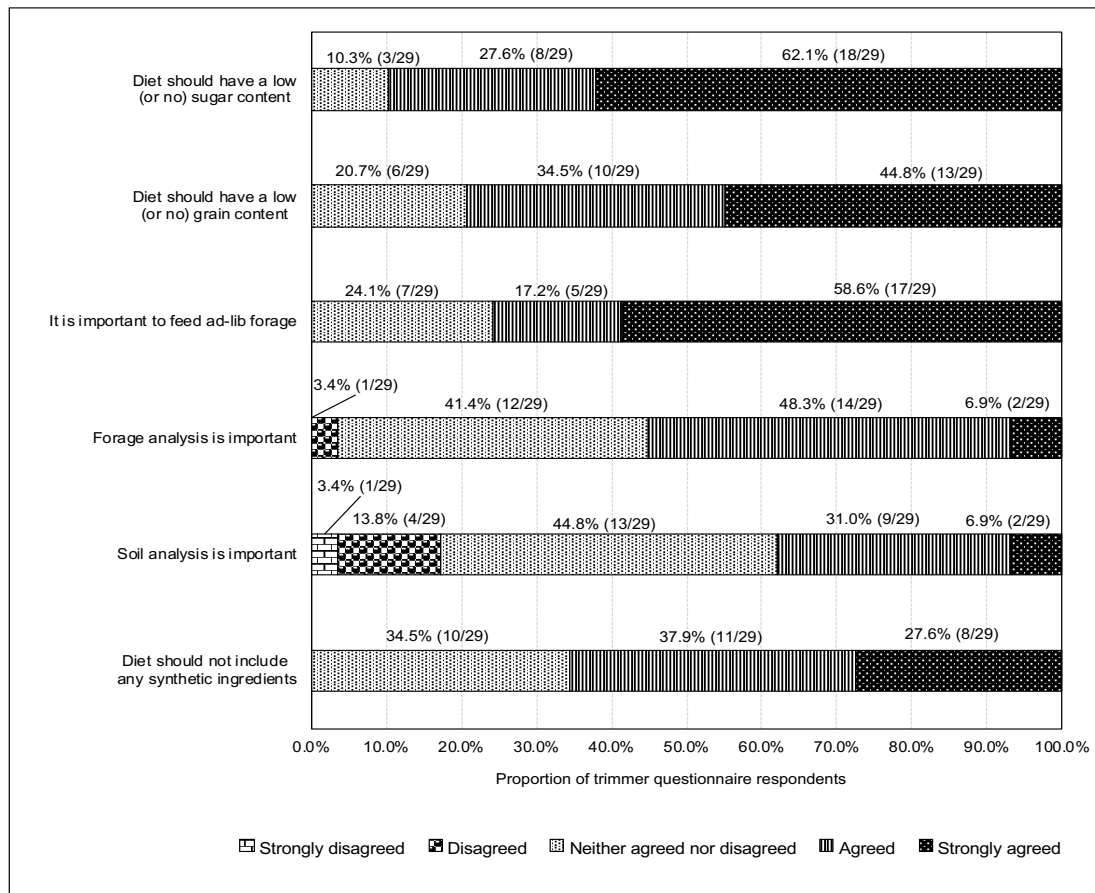


Figure 6.4 Trimmer questionnaire respondents support for diet formulation and diet-related views expressed by trimmer interviewee opinions (n=29)

Problems encountered when formulating a diet

Interviewed trimmers highlighted that evidence-based advice about the nutritional requirements of horses was limited and, although feed manufacturers were starting to consider horses' feet when formulating products, there was still considerable uncertainty around optimal nutrient requirements.

...if you look at the research on equine nutrition there isn't an awful lot of it...erm...there is the NRC [Nutritional Research Council] guidelines which are great, but if you read through them a lot of it is 'Well we know that that much will kill them'... [T1, L787-790]

I mean we do have food companies now are getting on board with the healthy feet thing. Erm I think they have to with so much laminitis that's been around. Erm... but yeah it's still a minefield, a minefield out there. [T2, L307-310]

...the mineral recommendations for horses are very vague and so I think a lot of supplements are low in them, just because. [T1, L804-805]

...but the problem is that there are EU [European Union] guidelines in what you can put in in terms of copper and EU guidelines in terms of what you can put in in terms of selenium, which is very sensible, except that if you are in an area where you have got almost none...you may actually need way more than the EU guidelines so, you know... [T1, L825-829]

Some interviewed trimmers considered that due to the large number of minerals that could be included in a horse's diet, assessing whether minerals were provided in appropriate proportions was problematic. Interviewed trimmers considered that complexity was increased by the need to take into account minerals that were supplied to the horse via grass because these levels varied geographically.

...a lot of it is best guess. I mean a lot of it is really good solid science in there but when it comes to, you know, what happens if you have got high levels of iron and low levels of manganese and not quite enough copper can somebody exactly tell us what's happened there – nobody has got any idea. [T1, L798-802]

Because when you start mineral balancing and everything else, well, there are too many different things going on with it. [...] I mean you feed it one thing, let's say we'll feed it more magnesium, oh wait a minute the calcium-phosphorus level needs to be adjusted, oh wait a minute the copper level and zinc level needs to be adjusted now. Oh, this level and that level. Oh, if we feed this it has more of that in it. And it starts a big snowball train where you get completely lost. [T4, L518-522]

...when you look at other people across the country there are quite, you know there are huge parts of the country where you have big mineral deficiencies or big spikes [...] and supplementing minerals that generally, across the UK, we are fairly low in – you know the more heavily the farmed the area the more likely you are to be low in it. It makes a huge difference. [T1, L245-249]

Some interviewed trimmers considered that it was difficult for horse owners to judge the real benefits of the different commercial feeds and supplements due to the large number of products available and the persuasive nature of some of the marketing of feeds.

...for a while people were feeling their horses dock leaves because they were very high in antioxidants and supposedly very good for them but actually dock leaves are one of the vegetables that shouldn't be fed to horses because they contain elements in them that don't do them any good at all. In fact, garlic is considered to be, you know, helps with breathing, helps keep the flies off etc., but it is actually still poisonous to horses and fortunately because people don't feed it ridiculous amounts they tend to get away with it but garlic really shouldn't be fed to horses at all but it is sold as a horse feed. [T5, L608-615]

...we could fill pages and pages of feeds with you know very good marketing and very good advertising which will send horses footy lame at the drop of a hat... [T1, L782-784]

Interviewed trimmers reported using three different approaches to addressing the issue of diet formulation: (i) delegating responsibility to the horse owner (with support provided by either themselves or a nutritionist), (ii) advising cutting out all but the most basic of feedstuffs (at least initially), and (iii) being very prescriptive about what the horse should be fed.

...they usually have an idea themselves. In the early days, I used to use somebody called [name of nutritionist], [...] but I haven't had to refer anybody for ages. But I don't... I know some of the other schools are heavily into nutrition, but I have enough trouble getting my head around feet science without getting into... I prefer to stick to my own field... [T6, L644-649]

...the horses are getting a broad range of vitamins and minerals, amino acids and that sort of. So, the basic nutrition is appropriate. So, that they are using ...something like a broad-spectrum vitamin and mineral balancer type scenario. [...] So, we make sure that those basic nutritional concepts are there and then how they exactly fulfil them, you know, you basically need to allow the owners to use their own ethos and do their investigation, I think. [T3, L827-904]

So, when I get a new client, I get them back on hay, salt and water and freedom of movement for the first six weeks and then get them back to a base and then build from that base if we need to. [T4, L299-300]

...a really detailed feed sheet and a list of minerals, mineral supplements basically and straight feeds that I know people can feed without problems... [T1, L776-778]

Laminitis

Interviewed trimmers perceived links between laminitis and the horse's diet. Sugar levels in grass being too high were perceived by interviewed trimmers as being causes of laminitis, and one interviewed trimmer also considered that insufficient minerals played a role.

You know some people will sort of you know a flush of grass comes out and erm you can notice your horse is a bit footy, just because there's inflammation. [T2, L427-430]

...is a huge number of horses that had footiness which was down to metabolic or dietary factors. So, laminitis type stuff, which was mostly down to too much sugar in the grass and not enough minerals... [T1, L308-311]

Given that trimmers believed that food intake was a causative factor it was not surprising that trimmers believed that laminitis was a preventable condition, one which could be avoid if the horses' diet was managed.

The other one was just extremely sensitive to sugar so as long as you kept her off grass during the daytime during spring and summer, she is absolutely fine and completely rock crunching. That's all you have to do with her. [T1, L232-235]

So, the whole thing is to try and get people to move away from what is traditionally taught, which goes back to the British Horse Society, have your little postage square, nice level grass, stable and this is the perfect setting and it's like a luxury prison that is going to slowly poison your horse because this rich grass is about as far distant from what the horse requires as you can get... [T4, L493-497]

However, one trimmer believed that the emphasis on grass intake was an over-simplification.

We are all obsessed with sugars, but we have been managing sugars so carefully and actually, laminitis is still going up and I really, really don't believe that it is sugar related or always sugar related. [T5, L819-821]

She considered that the actual cause of laminitis was related to the functioning of the horse's endocrine system.

...and there is a massive assumption that laminitis is caused by owners letting their horses get fat. But actually, it's not, it's a metabolic condition that seems to cause the metabolism to slow down as the hormone balance is going skewwhiff and it is causing, amongst other things, piling on weight or fluid depending on what the cause is. [T5, L900-904]

Trimmer questionnaire respondents also highlighted a belief that laminitis affected hoof growth rate, sometimes increasing it and at other times decreasing it.

Laminitis has the biggest effect on hoof growth rate, it's often overlooked when people are talking about growth rates, but nothing grows faster than a laminitic hoof. [QR_T16]

...the history of pathology will also have an impact on growth - for example, current low-grade laminitis will often reduce growth, but a chronic history of LGL [low-grade laminitis] will also create lasting damage to the vascular supply to the various coria and hence negatively impact growth. [QR_T12]

6.3.2.3 Assessed factors: exercise/movement

Exercise was another element of equine husbandry that interviewed trimmers believed required managing. They drew analogies between foot functionality and athletic fitness.

Feet to me are like fitness, you don't look at a horse and go 'Well, its unfit it's never going to be good for anything'. You look at it and go 'You know, give it a few months of proper work and some really good feed and that will actually be a very nice horse', and that's how they should look at feet... [T1, L526-529]

...treat the foot like it is part of the musculoskeletal system as well, in terms of conditioning so the foot is part of the horse that needs to be got fit for the exercise that you are going to put it through as much as any other aspects. [T3, L568-571]

Understanding the impact of a shoe on a horse's feet was considered particularly important during the transition period (i.e., transitioning between wearing shoes and being comfortable barefoot). Trimmers believed that it was not just the foot that was required to operate in a different way as a consequence of removing shoes but also that all the ligaments and tendons that connected the foot to the rest of the horse's body were put under different stresses and strains. It was explained that without shoes, the structures of the foot and leg had to constantly adapt to the torque and twisting actions that arise when the foot comes into contact with uneven terrain.

So, again, particularly when horses are coming out of shoes, the ligaments need time to get fit for doing their job. Because, in a way, they have been couch potatoes whilst they have been in a shoe and haven't had to do, undergone the same challenges. [T3, L636-638]

Interviewed trimmers considered that conditioning required recognising these different forces and then applying the appropriate level of pressure. The level had to be high enough to trigger the processes that resulted in the foot adapting to deal with that pressure but if it was too high then the foot would be harmed.

...you have to balance between erm what is stimulating the hoof and what's damaging it. So, obviously, if you've got a horse which is in discomfort you can't do it, but if you've got a horse which is comfortable the more you work on the road, the stronger and harder and healthier those feet are going to be because they respond to that pressure and they, they do grow to match it. [T2, L456-462]

...the kind of workload that the horse can undertake that will help to get the foot fit and appreciate what might actually be damaging to the foot. [T3, L222-224]

For trimmers who gave advice about how to 'get feet fit', the conditioning needed to be tailored to the type of terrain over which the horse travelled. It was explained that different types of terrain had different effects on horses' feet. For example, the issue relating to some types of terrain was abrasion, whilst the issue relating to other types of terrain were the forces exerted on the horse's feet.

So, although the foot may operate in one area for a certain length of time very well it may not operate as well in a different type of terrain at the same time because it just hasn't had the conditioning. [T3, L578-580]

I have come out to several horses now that have got horrendous biomechanical problems caused by their feet not having been trimmed but not living in a high wear enough environment to enable that to happen. [T5, L1007-1009]

...or only be do moderate work on flat, solid surfaces and that kind of thing so you don't have that high level of torque. [T3, L223-224]

Exercise advice included the length of time ridden, and the activities that the horse should or was able to carry out (examples were jumping, including stipulations about the height of the jump, and dressage movements). Trimmers were prescriptive about surfaces and changes in pace and rider weight was also highlighted as a consideration.

...any exercise requirements, so do they need to hand walk the horse in pads, do they need to stay on simple transitions – progressive transitions rather than acute transitions – sort of general, do they need to stay on large circles, do they need to stay on surfaces, do they need to go on hard roads, so that kind of stuff. [T3, L558-561]

...and they couldn't manage their own feet never mind with the weight of the rider on. [T4, L84-85]

One interviewed trimmer emphasised that, like any sort of fitness, the conditioning needed to be ongoing.

So it's the same as you might have been fit enough to run a half marathon or a marathon but if you've just been sitting watching the box sets of everything going on for the last ten weeks and then you decide to go and run your half marathon, well you might get around it but by gosh you are going to know it at the end of it, you know. So, so it's just because the horse's foot was fit enough to do something at one point if it is not continuously kept fit it might not be fit enough to do that job without some sort of effect... [T3, L623-629]

Track systems

Jamie Jackson advocated that barefoot horses should be kept on a track system. Track systems are sometimes referred to as paddock paradise (the title of a book, written by Jaime Jackson that describes the system [154]). A blog article [232] describes track systems as fenced off areas that the horses can move around. It is explained in the article that track systems are highly individual in design as the design depends on the natural features of the area available – hills, streams, banks, ditches, hedges, etc. Track systems can include wide areas for the horse to 'loaf around' as well as narrow pathways to keep them moving. They usually include a shelter of some kind for the very hot – or cold and wet – days, a water supply, feeding stations, limited

access to ad-lib grass, planting to facilitate foraging and a variety of surfaces for the horses to walk on.

Interviewed trimmers described some benefits of keeping horses on track systems.

...had three horses on it, on a track system, and the horses were improved – got stronger and better, and moving. [T4, L569-570]

...if everywhere had a system of tracks as well as a field and stable, you know, you can deal with your grass sensitive horses very very easily, you are providing much more mileage, you are providing a much better environment for a lot of these horse than these tiny little individual paddocks that you see them in, utterly miserable being badgered by flies with no, no friends and nothing to eat. [T1, L712-717]

6.3.2.4 Assessed factors: other influences on horses' feet

Trimmers highlighted other factors that they considered affected horses' feet. However, in terms of these factors, there was considerable diversity amongst trimmers as to effect (if any).

Genetics

There was no consensus amongst trimmers as to whether any relationships existed between breed and horse's hooves. Interviewed trimmers expressed strong views both for and against there being such a link, as well as a view that genetics may play some role.

... there was one of hers, a Thoroughbred for a start, so it was kind of scuppered anatomically... [T6, L724-725]

... the breed is sort of insignificant, really, for all they are Equus caballus. So, you could get a strong or weak one whether they are ponies or Arabs or Thoroughbreds, you'll get the strong and the weak in between things. [T4, L143-146]

I am not going to say genetics plays no part, but I see too many feet and how fast they change for me to think genetics plays a big part in feet. [T1, L489-481]

Similarly, there were mixed views amongst trimmer questionnaire respondents about whether there was a relationship between breed and hoof growth rate. Approximately a fifth of respondents either strongly agreed (3.6%, 1/28) or agreed (14.3%, 4/28) with this view, but over half did not hold a strong opinion (neither agreed nor disagreed: 53.6%, 15/28), and the remaining respondents disagreed (28.6%, 8/28). None of the respondents strongly disagreed that there was a link between breed and growth rate.

Agricultural and medicinal chemicals

Whilst interviewed trimmers considered that some products should be avoided, others believed that each horse was an individual, meaning that generalising was not appropriate.

They have their fields, and they are more bothered about their fields and making it look green and wondrous and throwing chemicals on it, which is bad for the horses. It is like bring your horse here and we will poison it for you. [T4, L470-472]

A huge amount is environment. It can have a very big effect and, again, that will depend upon the nature of the horse that you have got as well, so the same as with people, they are affected by their environment to a different extent. So, some horses, you know, sort of, environmental changes such as spraying, agricultural spraying, air pollution and so on will have a greater effect on some horses than it will on others. Things like vaccination effects, worming. You see, you see a degree of effect that differs from one animal to the next... [T3, L661-666]

One trimmer questionnaire respondent suggested that, in terms of vaccinations, worming products and agro-chemicals, all horses were affected to some extent and that the evidence for this could be seen by examining the horse's feet.

I would say that they affect all horses systemically and have negative influences. The effect upon the feet may range from growth ring to laminitis. [QR_T63]

Trimmer questionnaire respondents were asked whether they believed that vaccinations, worming products, fertiliser spray, herbicides and pesticides affected horses' hooves. Between a tenth and a quarter of questionnaire respondents, depending on the product, held no opinion (worming products: 10.7%, 3/28; pesticides: 25.0%, 7/28). However, most respondents considered that these chemical

products would affect at least some horses as evidenced by the fact that only between zero (herbicides and pesticides) and less than a tenth (vaccinations: 7.1%, 2/28) of respondents considered that these products would not affect horses' hooves. Further details about trimmer questionnaire respondents estimates of the different proportions of horses that are affected by these chemical products are provided in Figure 6.5.

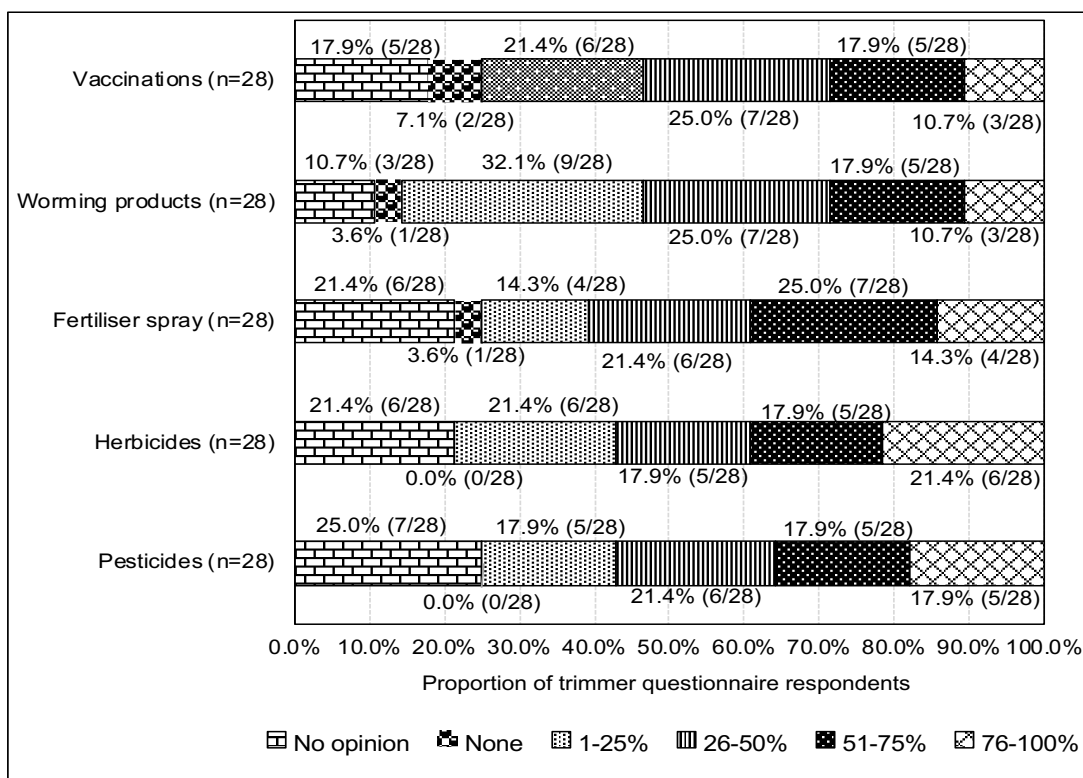


Figure 6.5 The proportions of horses that trimmer questionnaire respondents considered were affected by different types of chemical products (n=28)

Season and weather

Some interviewed trimmers believed that different climates generated issues for horses and their owners.

...the places that I was with them, which was Arizona, California and Georgia you don't have the climate that we have, you don't have the rainfall, you don't have the grass, you don't have horses turned out in fields you have them turned out effectively on dry lots and fed hay so a lot of the sugar/fructans issues that we have here they are just not an issue in those particular areas of the States. [T1, L105-110]

But is it that you can only keep a horse shoeless in one type of environment as opposed to another? Not, not really. As long as you are, the real thing is to be aware of how very wet environments affect the amount of torque and twisting that goes into the foot compared to when it is hard and dry... [T3, L611-614]

However, there was also a view that if the horse's diet was appropriate then the climate would not affect horses' hooves.

It doesn't matter what climate it's in, whether it's dry, wet whatever the hooves they come out the same. They are strong, hard and if it's wet climate they are strong and hard. If it's desert climate they are wet and hard. But if you feed them wrongly they go to [expletive]. [T4, L308-311]

Just over three-quarters of questionnaire respondents considered that hoof growth rate varied by season (strongly agreed: 50.0%, 14/28; agreed: 28.6%, 8/28). Most of the remaining respondents were undecided (neither agreed nor disagreed: 14.3%, 4/28), and two respondents disagreed (7.1%, 2/28).

One questionnaire respondent reported having observed a link between hoof growth rate and daylight/hormonal changes.

I see a huge difference in growth rate spring/summer vs late autumn-winter. These changes usually follow coat changes quite quickly... [QR_T12]

Hoof dressings

Interviewed trimmers considered that in term of their effect on hooves, hoof dressings were either ineffectual or harmful and, if applied, interfered with assessments of the quality of the hoof wall.

...if a horse's hoof is healthy, and the owner needs to put a hoof oil on because they are going to a show, I don't have a problem with that because on really healthy hoof, horn hoof oil won't do any damage. It is only when it is full of cracks that the hoof oil can get in there and do damage, otherwise it just wears off before it has had time to do anything. [T5, L682-686]

And people tend to panic about it and they think that they need to put some sort of grease on their horse's hooves so that that can help erm ... and erm it just, it doesn't really do anything. It doesn't really penetrate the hoof, erm unless it damages the hoof if that makes sense? [T2, L717-721]

...painting things on the horse's hoof will never influence the quality of the hoof horn that is growing out of the coronet band. It will only disguise poor quality and unfortunately, I need to see that poor quality to be able to do something about it. [T5, L678-681]

6.4 The balance management cycle: Plan

Once trimmers had completed their assessment, the next step was to use the collected information to formulate a management Plan. The Plans contained details about what the trimmer expected the owner to do before their next visit.

6.4.1 Personalisation of the Plan

These personalised Plans were a trimmer-owner co-production. Interviewed trimmers highlighted that they took into account owner circumstances and capabilities, as well as the general condition of the horse.

...it is just that everyone's lifestyles are very different, their calls on their time are different, their calls on their finances are very different so all of this needs to be considered. [T3, L496-498]

So, again, depending on where the horse is, what the horse needs, where we are trying to get the horse to and also what the owner can do, and that kind of stuff. [T3, L566-568]

One interviewed trimmer highlighted that her assessments included gauging the owner's capability to implement recommendations.

...so you get a feel for what they know, what they are capable of, what the horse may or may not be capable of. [T6, L433-435]

This trimmer highlighted that making such an assessment about the owner allowed her (if necessary) to protect the horse's welfare by the way that she worded her recommendations.

...a little bit of history on the owner (are they novices, try and get a feel for what type of people they are) because that does make a difference how you would score a horse. If you've got somebody who is very gung-ho and you are thinking, if I give her a very high scoring foot, she's going to be out hunting the next day. [T6, L430-433]

One interviewed trimmer also explained that she considered that it was important to involve horse owners in the development of Plans as this helped to ensure that the owner would implement the Plan.

So, you know, depending on the history of what has been happening to the horse before you came to see it, it may be that the owner has already got these things in place, but it may be that they don't so that all comes back to the discussions before you do anything with the horse. [T3, L487-489]

Interviewed trimmers explained that when owners were not able to implement a Plan it was necessary to adjust the goal and, in some cases, this could mean putting (or keeping) the horse shod.

...what, you know, you consider is going to be needed to get to that point, whether those options can be put into place for the horse or not and if those options can't be put there whether a different set of expectations is appropriate, or not, and so on. [T3, L749-751]

I think life gets in the way and it's great to have an ideal view of somebody who is going to hand walk their horse whatever the weather five days a week if it needs it, but... you know, they have work, they have kids... and I think it's not wholly realistic sometimes, erm... and then it's just kinder to put shoes on and let them get on and do what they want to do. [T6, L531-535]

6.4.2 Content of the Plan

Plans outlined by the trimmers varied considerably in content from general to very specific advice, or simply included information that would help the horse owner make their own plan-related choices.

Interviewed trimmers explained that they provided horse owners with written Plans and that these formed part of a wider record of observations and other information.

The physical documentation of advice provided the owner (and trimmer) with a readily accessible reminder of what had been agreed, both in the short-term (i.e., at the previous visit) and over the long-term.

I email my clients with recommendations... [T2, L382]

Usually, I would leave the owner with a written report. [T3, L534]

I always, if it's a working horse... a horse that has been worked, I always leave them with a bit of paperwork. [T6, L454-455]

Further details about the records kept by trimmers are provided in Section 7.3.2.3.

Examples of advice provided by trimmers to owners ranged from no changes to making extreme changes to current husbandry and exercise practices.

Sometimes it is just keep going. What you are doing is absolutely fine and it is, you know, maintain your normal exercise programme. [T3, L563-564]

Most times, nine times out of ten, people move yards. They look for somewhere where they can then keep their horse properly... [T4, L475-476]

Sometimes recommendations that trimmers outlined were specific and addressed precise elements that related to care and exercise, whilst at other times trimmers described how they signposted horse owners to websites or individuals who they thought might be able to help the owner. Trimmers, rather than being prescriptive, provided horse owners with the support they needed to make their own choices. The trimmers were not aiming to be the sole source of advice, just one of the members of what I have termed an owner's professional advisory team (PAT). Members of an owner's PAT would, at a minimum, include their veterinary surgeon, but could also include, for example, an equine physiotherapist and an equine nutritionist. A horse owner's PAT could also include professionals who would help the owner improve their own fitness and riding (as improvements in these areas would help the owner's horse).

...it might be a recommendation for changing bedding or there could be a recommendation for erm it might be require disinfecting or something... [T2, L386-388]

...say the horse has got contracted heels and they have got a deep central fungus in the frog then that is the time that I will actually instruct the owner to put a product in there... [T5, L718-720]

So, we discuss those requirements and then exactly which brand and stuff like that they use, and then I can say that certain brands have different ethics behind them and then it is a case of then they can go to the respective companies to seek out more information or a nutritionist to seek out more information and so on. [T3, L829-833]

I tell them to go and have a look at the [feed company name] – their website. To go and have a look at their knowledge and what they've got. I am not saying it is the most perfect or anything else, but it is a good way to start and for them to look at things... [T4, L424-426]

They might have nutritionists they are already familiar working with, they may have, they may not but I can suggest that there are places that they can go and ask or what have you so then, and obviously, they can always ask the veterinary surgeon and pull the veterinary surgeon in on these things as well. So, obviously, with blood tests they would need to. So, it might be that they need bodyworkers, veterinary surgeons, nutritionists, you know, other stuff. Maybe they need a saddle fitter, a riding instructor, maybe they need physio themselves, you know, for the rider themselves, you know. [T3, L419-424]

6.4.2.1 Boots and pads

Use of boots and pads was something that might be included in a Plan.

Boots

Twenty-six trimmer questionnaire respondents indicated that they had recommended that one of their equine clients should wear boots. Comments provided by trimmer questionnaire respondents in a free-text box highlighted that perceived benefits of using boots included the fact that they provided comfort and protection, that they allowed hoof growth without causing wear and that they reduced concussion. Positive comparisons between boots and horseshoes included the fact that boots could last for years, over time boots were cheaper than horseshoes, boots did not compromise foot function (i.e., unlike horseshoes which held feet rigid, boots allowed the foot to distort when load bearing), and they did not damage feet (although they might rub).

Long-term use of boots. Ummmm. I don't see a great problem with that. It depends on what you are doing with the horse. So long as you get the right boot for the horse. [T4, L400-401]

It certainly improves the usability of the hoof, so a foot that can't cope wouldn't be able to walk up the drive barefoot because the soles are so thin you can go boots on and go for hack you know. [...] And the act of being able to do more movement will improve the hoof health more quickly anyway. [T5, L773-777]

Some trimmer questionnaire respondents suggested that boots could be used as an interim solution, having either a role during the transition period, or during a rehabilitation period (for example, to protect a cavity that had developed as a consequence of a foot abscess). Boots could also be used to secure pads in place.

Boots is more an input from the owner side rather than from me because it usually means the horse is going to be worked more than where it should be but if that is what is going to happen to the horse anyway then the horse needs to be protected. So, boots or shoes. So, you know. The other thing people use boots for is for doing the pad walking because they can't stick them on with duct tape. [T3, L777-782]

Trimmer questionnaire respondents also highlighted issues relating to wearing boots. These included difficulties getting boots to fit and/or put on/take off and reduced or increased (for example, on roads) traction. In addition, it was suggested that boots could mask foot problems, they did not allow three-dimensional distortion, and they were expensive and, if used extensively, could encourage infection.

Pads

Pads were recommended by trimmers when they considered that a horse's feet needed support or when a horse's feet needed relief from pressure. Some interviewed trimmers recommended a specific type of pad (namely, closed-cell foam that comes in different weights/densities with the weight being a measure of the resistance of the pad to pressure), whilst other trimmers were not specific about the material that was used to make the pads. Some trimmers also suggested that a pad could be used as a vehicle for products to treat foot infection.

I don't ever not use pads with laminitis now. I have tried rehabilitating hooves without the use of pads, and it takes much longer and sometimes you can't actually achieve what you want, but we are very inventive about the way we cut out the pads to relieve pressure from the sore spot. So, for instance, if the horse has stood on the horseshoe nail then we would put [a pad] inside a boot but we would cut out the pad around the area that the horse has actually stood on the nail. [T5, 730-736]

Pads. The only bit I use is carpet. Because you can soak it in cider vinegar, stick it inside [the boot] and each time the foot goes down it squishes and is washing and cleaning. [T4, L203-204]

6.4.2.2 The management of foot infections

Foot infection control might form an element of a Plan. One interviewed trimmer highlighted that although foot infections were undesirable irrespective of whether the horse was shod or barefoot, for barefoot horses they were particularly problematic due to their effect on barefoot functionality.

So, infection is bad whether the horse is shod or not shod, but the impact of infection, especially in the frog, will have much more impact upon the performance. [T3, L596-597]

Using products was often seen as one of the ways that could be used to manage foot infections. When recommending a strategy to resolve an infection, interviewed trimmers highlighted that their priority was to protect healthy tissue.

The main thing to deal with infection is that it is non-necrotising. So, we're hopefully getting rid of the infection and but not killing healthy living tissue. So, if people come across other products that basically follow this and they are happy to use those, and it is showing that it does the job, then, you know, I am not prescriptive in that. [T3, L828-831]

I sort of say to people, 'If you wouldn't be happy to put it on your hands, why would you put it on your horse's foot?' Erm you know, if you're having to use gloves to apply it, maybe you should re-think using it? [Laughs]... Erm...or goggles and hazmat stuff... [T2, L685-690]

The main thing is it doesn't do any harm. [T4, L542]

Rather than bespoke products for treating foot infections, interviewed trimmers tended to recommend that owners buy cheap, readily available products marketed for purposes other than treating equine foot infections.

So, it is really useful because it is the sort of thing that any owner generally has in their tack box anyway but if not, they can go to the supermarket and buy it cheaply without having to order on-line and pay a fortune and wait for it to be delivered... All of our products that we tend to recommend are really easy to get hold of but also not particularly expensive. [...] I am also not into expensive poultice and things; I am more about using a nappy and duct tape or stick a sanitary towel inside a hoof boot or something like that...laughs...to act as a poultice which is just as effective...laughs. [T5, L708-725]

And then Vicks VapoRub is the other one I tell them to use because, again, it does knock fungal and bacterial infections on the head quite hard. It's cheap and available. [T4, L538-540]

Approximately half of the trimmer questionnaire respondents indicated that they rarely or never recommended products to treat foot infections (never: 40.0%, 14/35; rarely: 11.4%, 4/35), whilst the remaining respondents indicated that they sometimes or often recommended such products (sometimes: 20.0%, 7/35; often: 28.6%, 10/35).

Trimmer questionnaire respondents recommended a wide range of different products. Of the nine products that were sometimes, often or always recommended by more than half of respondents, five were products sold by Red Horse Products (Field paste, Hoof-stuff, Artimud, Sole Cleanse and Honey Heal), two were products marketed for purposes other than treating equine foot infections (Sudocrem and Milton) and two were natural remedies (cider vinegar and honey). Details about the nine products most frequently recommended by trimmer questionnaire respondents are presented in Figure 6.6. Further details of the numbers and proportions of products recommended by the trimmer questionnaire respondents are provided in Appendix D (Table D.1).

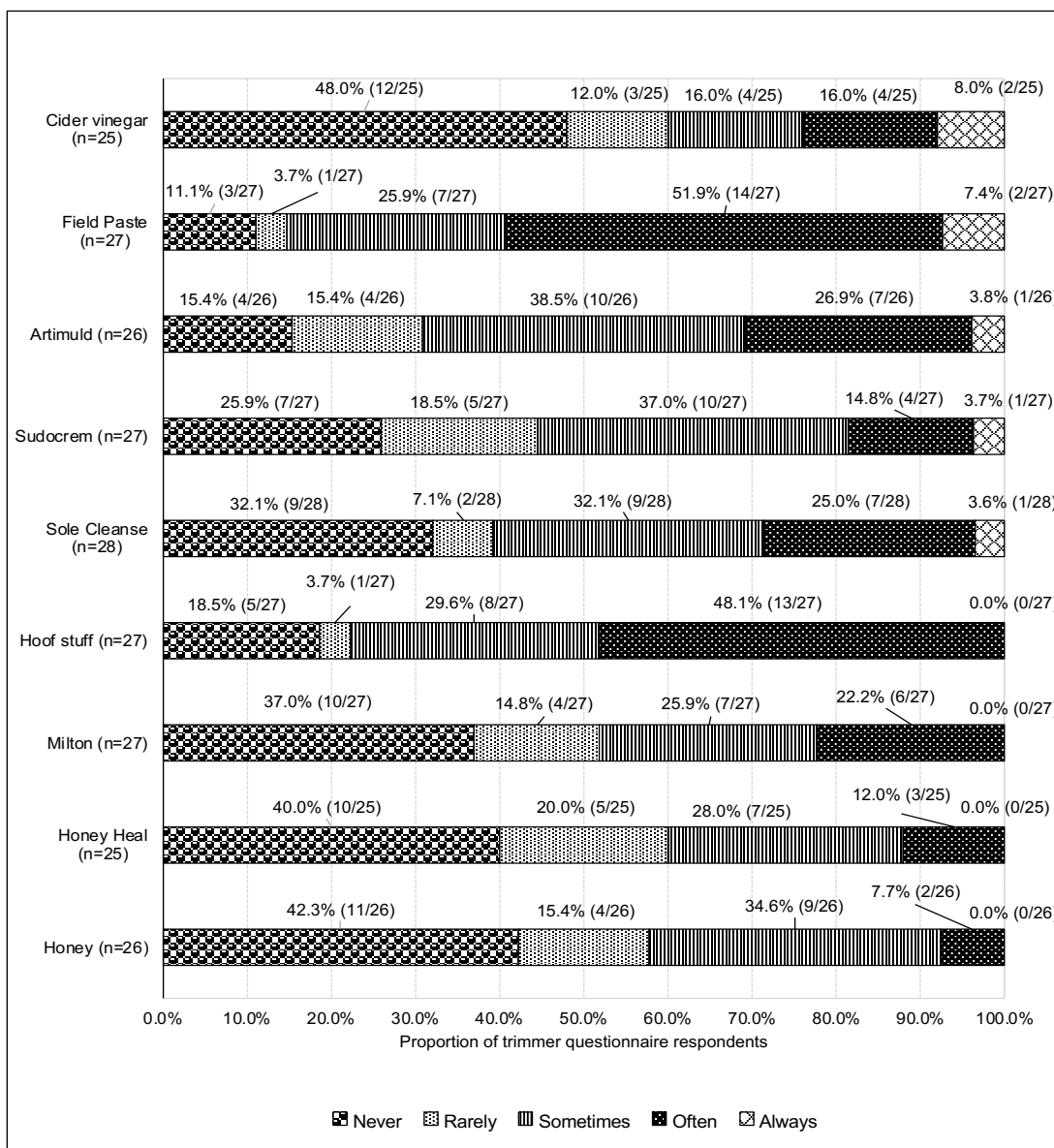


Figure 6.6 Frequencies with which products to treat foot infections were recommended by trimmer questionnaire respondents (n=25-28)

6.5 The balance management cycle: Do

The Do phase of the balance management cycle involved both the trimmer and the horse owner. It was largely carried out by horse owners as they were generally the people who delivered day-to-day care to the horse. Owners' experiences relating to delivering barefoot care are described in Section 9.3. The trimmers' role in the Do phase of the balance management cycle was limited as they only visited the horse intermittently. However, they saw part of their role as being readily available to provide provided support and advice between scheduled visits (Section 7.3.2.1). Some trimmers also saw resolving equine foot-care behaviour issues and educating horse owners and as being part of their role.

6.5.1 Practical tasks carried out by trimmers

The main physical role undertaken by trimmers was to apply a trim (when necessary), and sometimes apply wraps (hoof ware/cast).

...the foot has sunk within the hoof capsule. So, when that happens you need to help to improve that suspension. You can do that by using a hoofware orthotic in the caudal part of the foot, either just at the frog or the whole caudal aspect and attach that more securely using the hoofware. [T3, L812-815]

In addition, interviewed trimmers highlighted that they took on equine clients with behaviour issues and that additional appointment time was needed to manage these issues.

I've had clients come to me and they're just like, 'I'd rather pay more for you because you actually spend the time making sure my horse isn't frightened to be trimmed'. [T2, L346-348]

...I went through a phase, I seemed to be doing mainly behavioural because nobody else wanted to do them, I guess. [T6, L594-596]

6.5.2 Trimmers' educational role

Trimmers considered that they had an important role to play as educators. The education they provided to owners covered general care as well as detailed anatomy. Trimmers considered that educating owners yielded positive results.

... and trying to educate the client in horse care holistically... [T6, L350-351]

... I try and do is try and go out and educate and help by encouraging people to think about what the horse actually is, thinking about what the natural hoof needs. [T4, L132-133]

I've got my freeze-dried leg, I've got all the pictures you know, of dissections we have done on the courses, so if they go why have we got a deep central sulcus which is the bit in the middle of the frog, I pull out a picture and there it is, that's what's happening inside and a picture of what the heels do, pictures of dissections, abscesses, what the hoof wall is doing... [T6, L510-514]

I think one of the things that barefoot has taught me is that it is much more useful to educate owners than it is to just hand things over to professionals... [T1, L1045-1047]

6.6 Summary

Trimmers describe the practice of keeping horses barefoot as a process of trying to balance the interconnected parts of a complex system. This balance management cycle (Assess, Plan, Do), is a continuous process. The assessment part of the process is very comprehensive and includes not only an assessment of the horse's hooves but also the horse's diet, the horse's exercise and any other factors (for example, environmental factors) that trimmers consider might affect the horse's feet. This information is used to help set appropriate foot functionality goals. Plans, which are jointly constructed by the trimmer and horse owner, are necessarily very varied as they are tailored to each owner's and each horse's specific circumstances. The Plan includes specific care and exercise protocols that the trimmer and horse owner consider need to be implemented for the foot health/functionality goal to be reached. The Do phase of the balance management cycle involves implementing the Plan. There is also a change over time in terms of the proportions of the Assess and

Plan phases of the cycle that are carried out by the trimmer and the proportions that are carried out by the horse owner, with the trimmer's input tending to decrease and the horse owner's input tending to increase.

Information, from the horse owner perspective, about keeping their horse barefoot is provided in Section 9.3.

7 Reputation: building and safeguarding trimmers' businesses

7.1 Overview

The focus of this Chapter is on trimmer reputation, the third element of the overarching conceptual model. This Chapter primarily includes data collected during the interviews with trimmers, although it also includes some results (where relevant) from the trimmer questionnaire.

As demonstrated in Chapter 6, the balance management system facilitates the successful delivery of foot-centred care. The success of the process can be judged by the extent to which the horse is comfortable barefoot. The comfort (or otherwise) of the horse is a visual (and sometimes very public) demonstration of the level of success of the process. Thus, a horse that is comfortable barefoot can enhance a trimmer's reputation whilst one that is uncomfortable barefoot may do the opposite. As horse owners play a major role in implementing the balance management cycle, to help ensure the successful delivery of foot-centred care, trimmers screen potential clients and may cease working with existing clients who are not appropriately engaged in the process of delivering foot-centred care. The professional competence of trimmers helps facilitate the delivery of the balance management cycle, as does having a professional approach to the job (including being customer focused [which also helps attract new clients] and keeping records).

Trimmers used two main approaches to build and safeguard their reputations, namely managing their client lists (Section 7.2) and acting professionally (Section 7.3). The ways in which these elements are linked to each other and the delivery of the balance management cycle is shown in Figure 7.1.

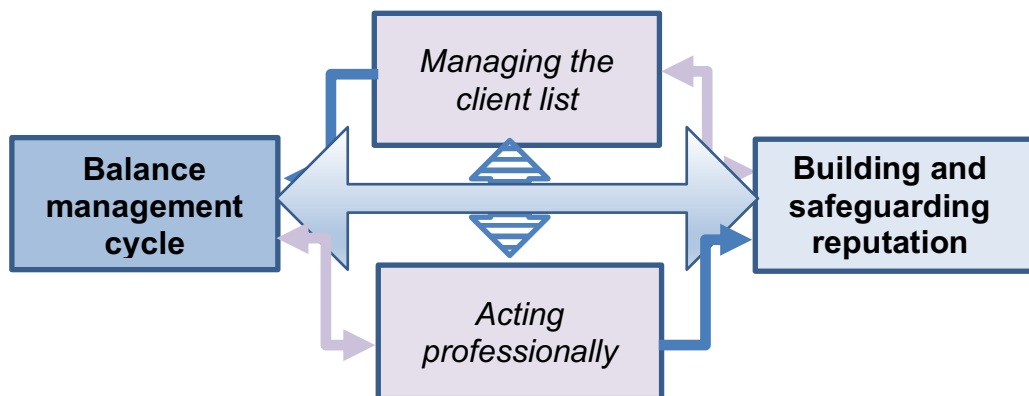


Figure 7.1 Conceptual model: building and safeguarding trimmer reputation

7.2 Managing the client list

7.2.1 Attracting new clients

Interviewed trimmers described how potential clients contacted them after seeing their name posted on a trimmer organisation website or finding their details on the trimmer's own business website. In terms of Internet and social media presence, approximately one third (32.5%, 13/40) of trimmer questionnaire respondents reported a presence on more than one Internet platform. Nearly three-fifths (57.7%, 23/40) of trimmer questionnaire respondents had their contact details listed on a trimmer organisation website, whilst just over a half (55.0%, 22/40) had a dedicated website and just over two-fifths (45.0%, 18/40) had a dedicated Facebook page.

Having a good reputation helped trimmers attract new clients and increase the size of their business/client lists. Interviewed trimmers reported that new clients often approached them following a personal recommendation. The personal recommendations were delivered via word-of-mouth. However, rather than the conventional word-of-mouth method of passing information from person to person by oral communication, often the mode of communication was via an Internet platform.

... I tried advertising and that was, that was just a waste of money. You have to build your own reputation. [T4, L331-332]

...people get to me now mainly through word of mouth and also through my website. Occasionally through a listing on the [trimmer organisation name] website. [T5, 671-672]

An awful lot come via word of mouth via the Internet these days. Through forums, through chat groups. That kind of stuff, you know. I must admit that I don't participate in those very much so other people are doing that work for me. [T3, L677-679]

7.2.2 Client selection

Trimmers considered that it was important to work with owners whose views about their horse's foot functionality potential (the goal) were congruent with their own. Owners also needed to be willing and able to implement the care and exercise changes that trimmers considered needed to be employed for the horse's foot functionality goal to be reached.

7.2.2.1 Initial screening of potential clients

Trimmers carried out an initial screening process during which they gathered information to help them determine whether they should take on a horse owner as a client.

General assessment of owners' equine knowledge, physical ability and resources. Should the assessment not meet basic requirements - I decline patronage. [QR_T28]

Trimmer questionnaire respondents explained that they asked questions about the horse owner's experience of hoof care.

Previous hoof care history, or attempts at being barefoot (that didn't work, and why). [QR_T2]

If possible, I will also find out who has been trimming the horse and why they want to change to me. [QR_T24]

Trimmers asked questions about the horse owner's current situation and also to determine the owner's expectations, their underlying motivations for employing the trimmer, their enthusiasm, and their willingness to work as part of a team. Trimmers also wanted to make sure that potential clients had the resources (time, effort and infrastructure) required to enable them to keep their horse barefoot.

I will take a full history over the phone to make sure that the client has realistic expectations and is wanting to use me for the right reasons. [QR_T12]

Are you looking forward to taking your horse barefoot? Are you willing to have a team helping you? [QR_T19]

...I will have had phone dialogue or email dialogue, so I know that potentially they can do the conditioning or the environmental stuff. Erm... and I prepare them for that [...] and the cost, because I do photographs and I rock up and it can take anything from 1 to 2 hours to do, depending on what I'm confronted with. [T6, L402-405]

Responses to the trimmer questionnaire showed that before taking on a new client, nearly all respondents (>90.0%, either 30/33 or 31/34) indicated that they always carried out checks to try to determine the owner's expectations about keeping their

horse barefoot, their willingness to be involved in all aspects of their horse's care and whether they would carry out the trimmer's husbandry and exercise advice. Detailed results about the checks that trimmers carried out before taking on a new client are provided in Figure 7.2.

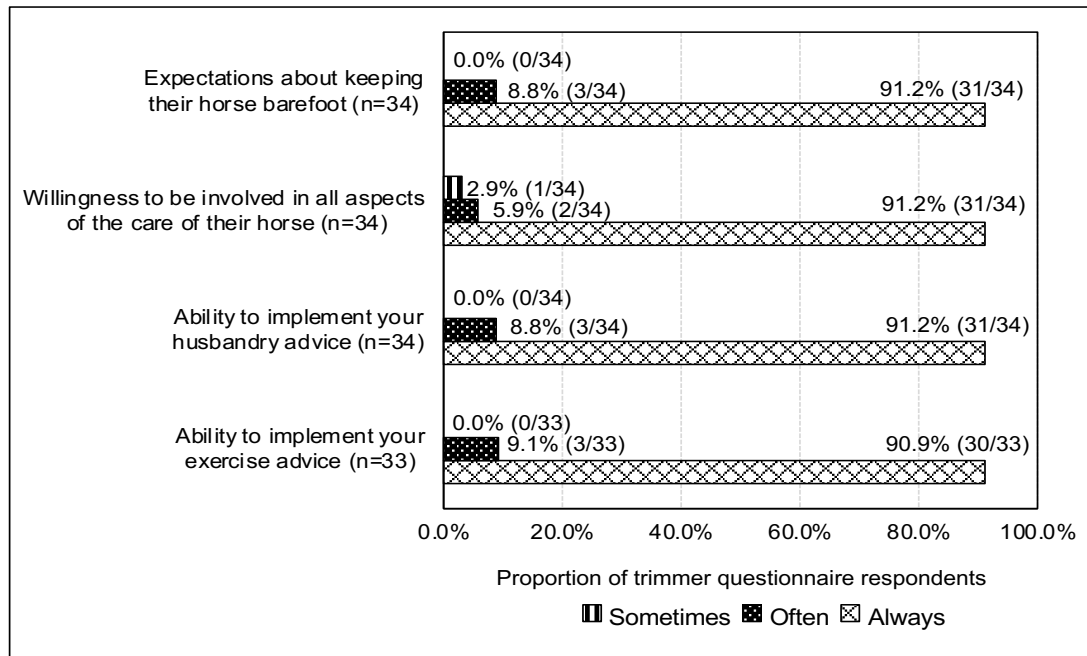


Figure 7.2 Frequency with which trimmer questionnaire respondents undertook four different checks to assess the suitability of a potential client

Checking that potential horse owner clients had sufficient financial resources was not important for all trimmer questionnaire respondents. Just over half (57.6%, 19/33) reported that they frequently (always: 45.5%, 15/33; often: 12.1%, 4/33) assessed owners' financial resources and similar proportions of the remaining respondents indicated that they sometimes (15.2%, 5/33) rarely (15.2%, 5/33) and never (12.1%, 4/33) checked potential clients' financial resources.

Some questionnaire respondents highlighted that if a veterinary surgeon was involved in treating a hoof-related condition, the veterinary surgeon's acceptance of the trimmer's involvement with the horse was important. Just over half of the trimmer questionnaire respondents indicated that, if applicable, they would check that the owner's veterinary surgeon was supportive of their involvement (54.5%, 18/33) and just over a tenth (12%, 4/33) often carried out this check. However, approximately a third of respondents only sometimes checked (30.3%, 10/33) and one respondent rarely checked (3.0%, 1/33).

If there is a pathology, always ask if the vet is aware and onboard.

Seek cooperative working relationship if so. [QR_T2]

...a request for permission to contact the veterinarian if the horse is under veterinary supervision for a hoof-related condition, which I would insist on doing before seeing the horse. [QR_T5]

Reasons for having refused to take on a new client

Approximately four-fifths (82.9%, 29/35) of trimmer questionnaire respondents indicated that in the past they had refused to take on a potential client. Trimmer questionnaire respondents were provided with a list of ten reasons that might have led them to refuse to take on a potential client and were asked to indicate which of these reasons applied to situations that they had experienced. A free-text box was also provided so that trimmers could provide additional reasons. Twenty-five trimmers provided responses to this question.

Most of the pre-specified reasons for refusing to take on a client can be grouped into three categories: the horse owner, the owner's ability to implement horse care and exercise advice, and issues relating to the trimmer's business. Just over one third of respondents (36.0%, 9/25) indicated that reasons in all three categories had led them to refuse to take on one or more new clients. Whether multiple horse owners did not become clients for single reasons, or whether a single potential client was rejected for multiple reasons is not known. Further details about reasons provided by trimmer questionnaire respondents for not taking on new clients are provided in Figure 7.3.

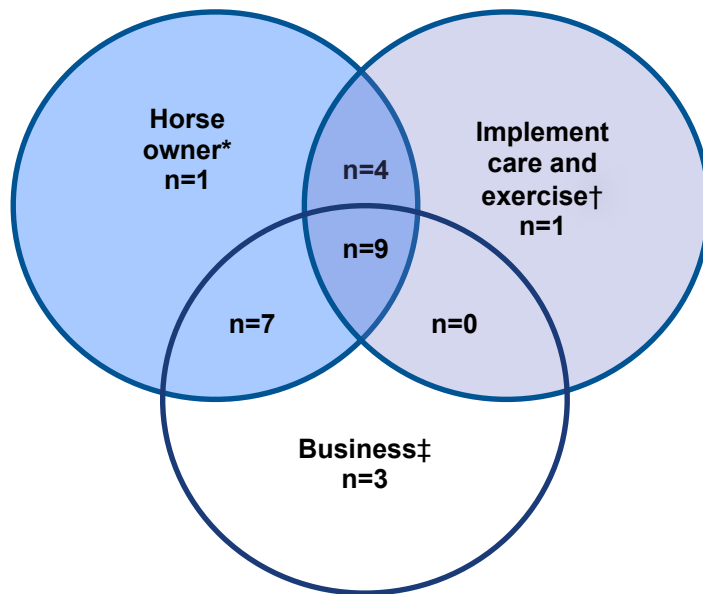


Figure 7.3 Reasons provided by trimmer questionnaire respondents for not taking on new clients (n=25)

* Questionnaire categories: The owner's expectations about keeping a horse barefoot were unrealistic; the owner was not willing to be involved in all aspects of their horse's care

† Questionnaire categories: The owner was not going to be able to implement my husbandry advice; the owner was not going to be able to implement my exercise advice

‡ Questionnaire category: I was worried that I would not get paid; it would have been too far me to travel; I did not have the capacity to take on any more clients

Horse owner-related reasons for not taking on a new client

One interviewed trimmer highlighted that she might not take on a horse owner whose horse lived on a livery yard. This was because her experience had been that owners who kept their horses on livery yards were not always able to make the necessary husbandry changes and because the negative behaviours of other livery yard owners made life difficult (for her and for the owner of the barefoot horse).

I would be asking them first where and how they keep it because again, if it's a livery yard and a conventional one at that I would probably say don't bother unless you can really, really influence what happens to the horse. [T6, L523-525]

I very rarely these days take on anybody on a livery yard just because I've had so much hassle in the past, or the owners get so much hassle and they've got no control often and they are ostracised often and I think... I just don't want to go there anymore. [T6, L398-399]

Nearly three-quarters (72.0%, 18/25) of trimmer questionnaire respondents had refused to take on a new client because they had considered that the owner's expectations about keeping their horse barefoot were unrealistic and two-fifths (40.0%, 10/25) had refused to take on a client because they had concluded that the owner was not willing to be involved in all aspects of their horse's care.

Some owner-related reasons cited by trimmer questionnaire respondents for not taking on a potential new client were based on the trimmer's perception that they would be unlikely to be able to develop a long-term relationship with that individual. Doubts were raised when the trimmer considered the potential client had reasons for choosing them that they considered were inappropriate (to save money or as a 'second choice') or when the trimmer felt that it would not be possible to develop a personal relationship with the potential client due to incompatibility or fear for personal safety.

Owner was more interested in cost than benefit. [QR_T60]

The owner was looking for a farrier but would settle for a trimmer until they could get one. [QR_T55]

The owner seemed unstable - had told me about chasing another owner with a knife!!!! [QR_T3]

I didn't like the client (you get a feel for if it's going to work out or not...).
[QR_T10]

Trimmer questionnaire respondents had also refused to take on new clients when people (other than the owner) who were connected with the horse had not supported their involvement (32.0%, 8/25).

The owner's team did not support them (yard owner, groom, trainer).
[QR_T19]

Furthermore, two-fifths (40.0%, 10/25) of trimmer questionnaire respondents indicated that they had refused to take on an owner as a client as they had not liked the way that the owner handled their horse.

Horse related reasons for not taking on a new client

Trimmer questionnaire respondents also highlighted that they had refused to take on an equine client on occasions when they had considered that the horse's health would act as a barrier to that horse being successfully kept barefoot.

The horse had such severe health issues that I did not think I could help it. [QR_T24]

In my opinion the horse needed to lose weight before shoes removed. [QR_T44]

The horse's behaviour was a potential barrier for some trimmers. About a third of the trimmer questionnaire respondents indicated that they had refused to take on potential new clients due to the horse's behaviour being dangerous (32.0%, 8/25).

I always ask what the horses' behaviour is like whilst being trimmed. I do not work with dangerous horses. I am happy to work with nervous and young horses. [QR_T20]

Trimmers also highlighted concerns about the care and exercise that horses would receive as having led them to refuse to take on a potential client. Just over half (56.0%, 14/25) of the trimmer questionnaire respondents indicated that they had refused to take on a potential client due to the owner not being able to implement their husbandry advice. However, only half as many trimmers had refused to take on a client because the owner was not going to be able to implement their exercise advice (28.0%, 7/25).

Business-related reasons for not taking on a new client

The most frequently identified business-related reasons highlighted by trimmer questionnaire respondents for not taking on a new client were that it would be too far to travel (72.0%, 18/25), that they did not have the capacity to take on more clients (44.0%, 11/25), and a fear that they would not get paid (20%, 5/25).

7.2.2.2 Building relationships

Trimmers considered that to enable a horse to be comfortable barefoot, it was essential for owners to carry out their recommendations (the Do part of the balance management cycle described in Section 6.5). Trimmers reported taking time to build strong positive relationships with horse owners or commented that such relationships had developed.

One interviewed trimmer highlighted that she made a conscious effort to build relationships with her clients and one trimmer questionnaire respondent explained that she took time to identify the most appropriate level at which to deliver education.

But I do erm try and build up a relationship with my clients so, so if there's any problems or if there's something changed, they suddenly go, 'The horse is sweaty,' or there's something wrong, that we can get on top of it straight away. [T2, L399-402]

I'll try and establish how much understanding of health and science they have so I can either use simple terms and explain from scratch or avoid being patronising by explaining things they already have a good understanding of. [QR_T22]

In terms of existing relationships with clients, interviewed trimmers reported liking their clients. One interviewed trimmer made the point that, over time, her relationships with her clients had grown stronger. A different interviewed trimmer highlighted that she believed that her general attitude towards life was similar to that of her clients. A shared outlook may aid communication and may also indicate similar beliefs about the general approach that should be taken to achieve the foot-related goal.

...all my clients I have got, I like them. [T4, L418]

...you tend to stick with people who you like, and they have to have a similar outlook. [T5, L645-646]

Most of the ones I have got left now [...] you know they almost become friends, well some of them are good friends. [T6, L294-296]

I think you attract [unclear 59:36] people so, I am quite a sort of sensible level-headed no-nonsense kind of person and I tend to attract that kind of client. Whereas I am thinking about another EP [equine podiatrist] fairly close to me who is very much more into energy meridians and things I don't really understand and she attracts completely different types of clients and we find that if one of us is injured and we have to take over the trimming for their clients they quite often won't like us and my clients won't like the other person. [T5, L639-645]

Trimmers highlighted that sometimes, particularly when dealing with rehabilitation cases, owners needed emotional as well as practical support. Delivery of emotional support may help develop a strong relationship between the trimmer and the horse owner.

...sometimes you end up being almost a social worker sometimes as well because there are a lot of issues. I mean, I am a horse owner myself, so I know the horses are precious little babies, you know, and sometimes more valued, or more minded anyway, than any other family member so they are very precious to them. The financial value of these horses is immaterial, but they are worth a huge amount to their owners. So, you know, if things aren't going well, or other things are creating problems you sometimes need to be a bit of an ear to bend sometimes, it is their relief too... [T3, L581-586]

I mean sometimes people just need a bit of confidence erm to do it and I think it helps to have somebody on board who you can talk to. [T2, L491-493]

7.2.2.3 Terminating relationships with existing clients

Interviewed trimmers reported terminating relationships that were not going well. In such cases trimmers considered that persisting with the relationship would have put their reputation in jeopardy and/or did not consider that persisting was worthwhile from a personal (including personal safety) or financial perspective. One non-confrontational way of deliberately ceasing to work with a client was to let appointments lapse.

...and I didn't actually like doing her horses because she was too wishy-washy, and her behaviour was appalling with the horses erm...so I didn't chase her erm...I didn't chase her at all. [T6, L317-319]

Over four-fifths (87.9%, 29/33) of trimmer questionnaire respondents indicated that they had stopped working for a client. This proportion is similar to the proportion of trimmers who indicated that in the past they had refused to take on a potential client (80.0%). Trimmer questionnaire respondents were provided with a list of ten reasons that might have led them to cease working with an existing client and were asked to indicate which of these reasons applied to situations that they had experienced. A

free-text box was also provided so that trimmers could provide additional reasons. Twenty-six trimmers used this list to provide information about why they had ceased working with an existing client.

The pre-specified reasons underpinning a trimmer's decision to cease working with an existing client were similar to the ones provided within the questionnaire about refusing to take on a potential new client (Figure 7.3). Twenty-four respondents indicated that reasons relating to the owner, to implementing exercise and care, or to their business had led them to cease working with an existing client. Whether multiple relationships were terminated for single reasons, or whether single relationships were terminated for multiple reasons is not known. Further details about reasons provided by trimmer questionnaire respondents for ceasing to work with existing clients are provided in Figure 7.4.

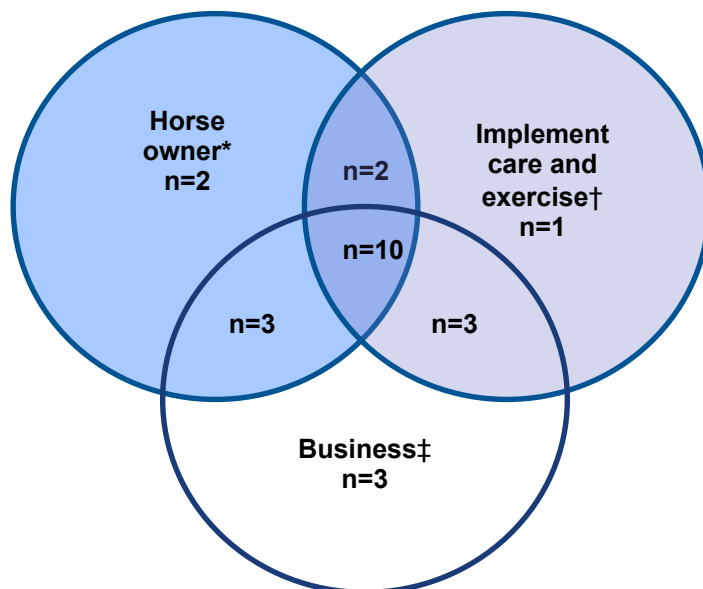


Figure 7.4 Reasons why trimmers chose to stop working for an existing horse owner client (n=24)

* Questionnaire categories: the owner's expectations about keeping a horse barefoot were unrealistic; the owner was not willing to be involved in all aspects of their horse's care

† Questionnaire categories: the owner was not implementing husbandry advice that I had provided; the owner was not implementing exercise advice that I had provided

‡ Questionnaire category: I had problems obtaining payment from the owner; it became too far for me to travel

Horse owner-related reasons for ceasing to work with a horse owner client

Trimmers highlighted personal incompatibility (with the owner and/or the horse) as having led them to cease working with an existing client. One trimmer questionnaire respondent considered that an owner had been acting in a way that damaged her reputation.

But I tend to not have very many flaky clients because I am not a flaky person, and I think they just don't identify with me. So even if I go out and consult, it becomes apparent after 2 or 3 visits that, you know, maybe they would be better off with a different practitioner because our ideas are too far apart. [T5, L653-656]

I didn't like the owner or the animal for one reason or another (life is too short). [QR_T10]

The owner was blaming me for problems with the horse to other people, which put me in a vulnerable situation professionally. [QR_T24]

Trimmer questionnaire respondents indicated that their relationships with horse owners could become untenable for a range of different reasons, including the owner making unreasonable demands and a breakdown in communication, i.e., the owner not responding to phone calls, texts or emails. Other owner-related reasons that had led trimmer questionnaire respondents to cease working with a horse owner were that they considered that the owners' expectations about keeping their horse barefoot were unrealistic and that they did not like the way that the owner handled the horse. Trimmers had also stopped working for owners on occasions when the owner's veterinary surgeon had not supported the trimmer's involvement with the horse.

Details of the proportions of trimmer questionnaire respondents who ceased working with existing clients due to owner related reasons specified in the trimmer questionnaire are provided in Figure 7.5.

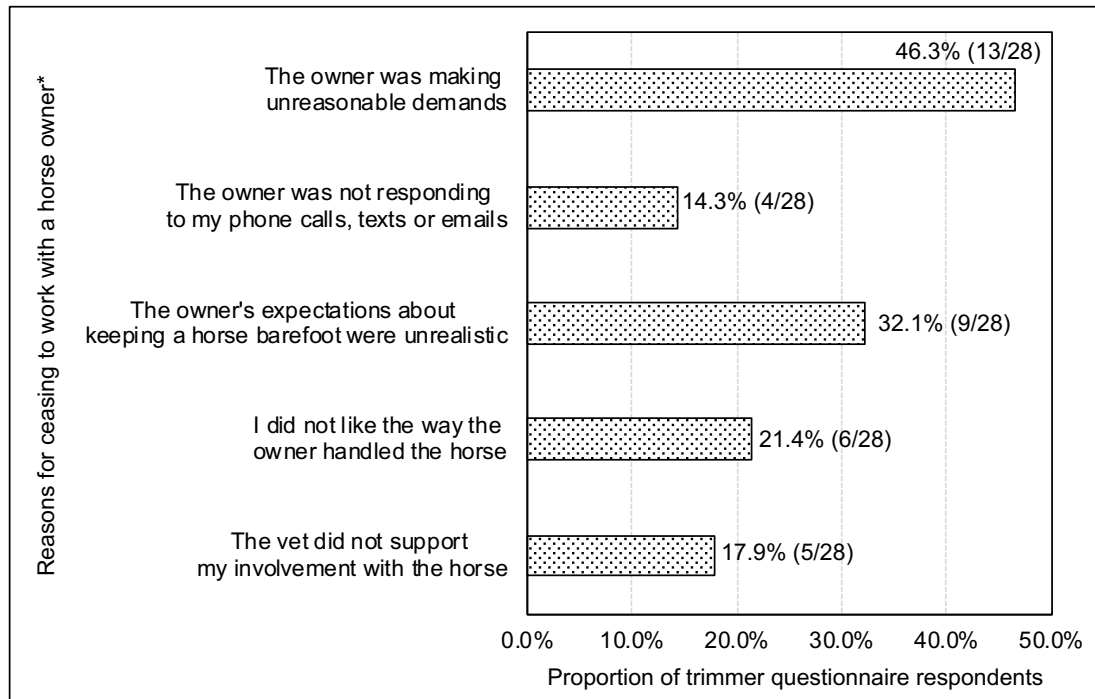


Figure 7.5 Proportions of trimmer questionnaire respondents indicating different owner-related reasons for ceasing to work with horse owners (n=28)

* Some trimmer questionnaire respondents indicated multiple reasons

Horse-related reasons for ceasing to work with an existing horse owner client

In Section 6.5 it was highlighted that trimmers relied on owners to carry out the day-to-day aspects of implementing the Do phase of the balance management cycle. Trimmers considered that if owners did not fulfil this role then this was a legitimate reason to terminate their relationship with them.

Trimmers identified insufficient (including a complete absence) of horse owner input into the process of keeping their horse barefoot as a reason for ceasing to work with a client. This lack of input took two forms: a lack (or complete absence) of attention during trimmer visits and failure to implement the care and/or exercise advice provided by the trimmer. On some occasions, trimmers associated the failure to follow advice with equine welfare concerns.

If I go to somebody and I think historically that they their heart's not in it... some people have turned up and they haven't even bothered to look at the feet, they can barely talk to me and they are sat yaking to their mate, and I am saying 'Well I'm just here to... to do what....' just fix... they are not even interested, couldn't even talk to me, so I didn't go back there. [T6, L545-550]

The owner would fail to attend appointments. [QR_T17]

I had no control over the diet because that was down to the nutritionist and the nutritionist was not trained in feeding for healthy hooves but trained in feeding for [competition], which the two didn't go well together at all. [...] I remember once...seeing instructions on the blackboards outside every stable, they would paint Keratex on twice a day and I said, 'I'm sorry I haven't given those instructions we have found that Keratex causes all sorts of problems' and the Keratex salesman had been round and convinced them that that's what they needed to do. [T5, L551-565]

Overfeeding horses, keeping them locked up for 23 hours/day. [QR_T38]

The owner was ignoring both my advice and the advice of other professionals that her horse was seriously ill and should not be ridden - the horse died a few weeks later of complications relating to PPID. [QR_T12]

Just over two-fifths (42.3%, 11/26) of questionnaire respondents reported that they had terminated a relationship with a client because they considered that the horse's behaviour was dangerous. No further details were provided. However, one of the interviewed trimmers highlighted that when she first started to work as a trimmer, one of the reasons that potential clients had contacted her was because they had horses that was uncomfortable having their feet trimmed. She considered that the practice of asking trimmers to trim the feet of horses who had hoof care-related behavioural problems was likely to be widespread.

... or if they were having to sedate it, I think we tended to get those sorts of calls, I certainly did in the beginning, and I am sure I am not alone in that. [T6, L243-245]

Details of the proportions of trimmer questionnaire respondents who ceased to work with an owner due to horse-related reasons specified in the trimmer questionnaire are provided in Figure 7.6.

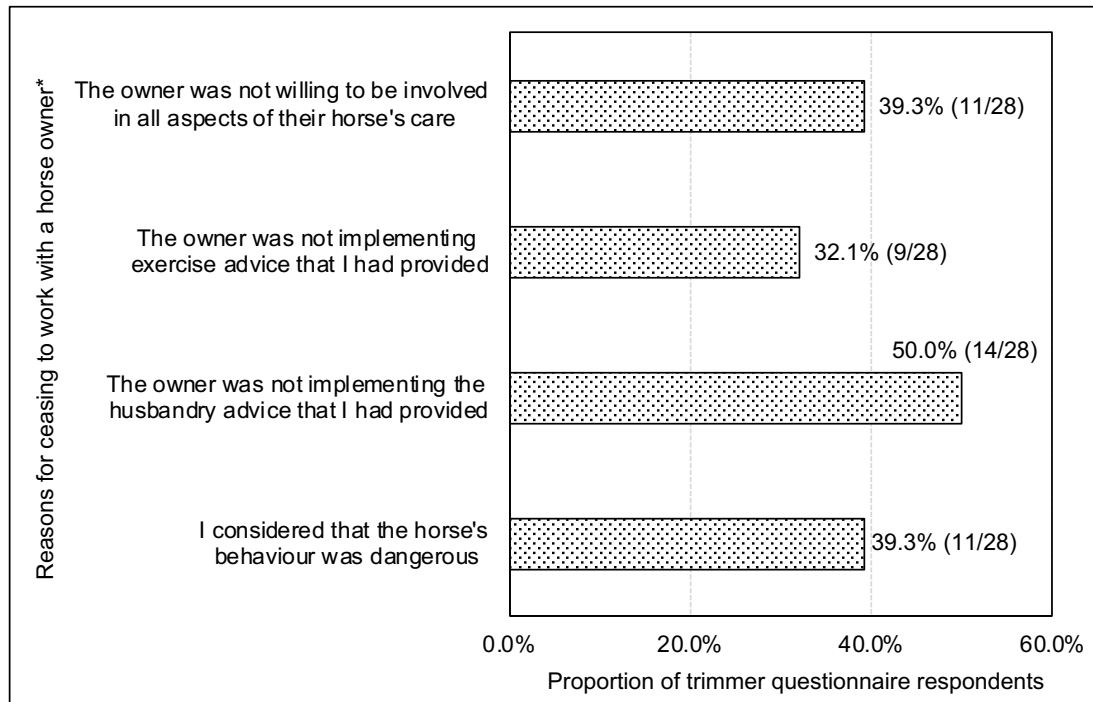


Figure 7.6 Proportions of trimmer questionnaire respondents indicating different horse-related reasons for ceasing to work with horse owners (n=28)

* Some trimmer questionnaire respondents indicated multiple reasons

Business-related reasons for ceasing to work with an existing client

The other reasons trimmers identified as having caused them to cease working with a horse owner were business-related. Just over half (52.0%, 13/25) of respondents highlighted that the distance that they would have needed to travel to visit the horse was too far and just over two-fifths (44.0%, 11/25) highlighted problems obtaining payment from the owner.

7.2.2.4 The success of the client selection processes

The selection process employed by the trimmer questionnaire respondents appears to have been generally successful for most respondents. Responses showed that trimmers considered that all of their clients either always (37.5%, 12/32) or often (62.5%, 20/32) took an interest in what they were doing during an appointment. Furthermore, in terms of advice, nearly all (93.6%, 29/31) of respondents considered that their clients always (9.7%, 3/31) or often (83.9%, 26/31) followed their husbandry advice, whilst the remainder (6.5%, 2/31) considered that their clients sometimes followed their husbandry advice. Trimmers considered that client adherence to their exercise advice was similar to, but lower than, client adherence to husbandry advice. Approximately four-fifths (80.7%, 25/31) of trimmer questionnaire respondents considered that their clients always (9.7%, 3/31) or often (71.0%, 22/31) followed their exercise advice, and the remaining fifth (19.4%, 6/31) considered that their clients

sometimes followed their exercise advice. It is of note that none of the trimmer questionnaire respondents indicated that their clients rarely or never followed either their husbandry or exercise advice. This highlights the importance that trimmers placed on owners following their advice.

7.3 Acting professionally

There are codes of professional conduct for veterinary surgeons [233] and veterinary nurses [234]. Much of these codes are relevant to trimmers, as are findings from research exploring what acting professionally means for nurses [235]. It has been suggested that, for nurses, acting professionally includes (but is not necessarily limited to) being accountable for all their actions at all times, showing integrity, having advanced communication skills, providing holistic care, being prudent by using discretion and showing common sense [235]. Information presented in Section 5.3.1.1 showed that barefoot care was a holistic approach. Information in this Section show other ways in which trimmers might be considered to act professionally.

7.3.1 Professional competence

It has been suggested, in relation to nurses, that the word 'professionalism' implies expert knowledge of practice as well as high standards of ethics and behaviour towards patients and colleagues [235]. Trimmers undertook CPD to maintain and improve their professional competence (see Section 5.2.2.2). They also undertook steps to ensure trimming standards were met. The service trimmers provided was very customer focused. They took the time to involve horse owners in decision-making (goal setting and Plan development). In addition, they were responsive to horse owner needs between visits.

7.3.1.1 Maintaining and upgrading professional competence

Interviewed trimmers believed that they could maximise the number of horses that they helped by increasing their knowledge base and their skills.

...as new research papers come out that gives us more tools that can help us. [...] Every year we learn a bit more and can help a few more horses... [T5, L165-189]

Input from other trimmers and/or trimmer organisations

Interviewed trimmers explained that advice and support from other trimmers and trimmer organisations (for those who belonged to such organisations) helped them gain the knowledge and skills required to deal with complex cases. This support was

considered to protect not only the individual's reputation but also that of others who belonged to the same trimmer organisation.

Trimmers explained that when they first started to practice most of their clients' horses had problematic hooves.

...you tend to deal with almost all pathologies because nearly all of the cases that you take on, even if the owners aren't aware of it, they do have pathologies. [T3, L404-405]

...because of the nature of public confidence and the way that people approach us that the probability would be that we would be likely to be working with horses whose feet were not necessarily the best. [T3, L159-161]

One interviewed trimmer with an established business explained that having resolved the issues faced by the clients she took on when she first started her trimming business, her caseload now predominantly comprised horses that required maintenance care.

But what I have found over the years is erm I have built up a business of horses that I helped initially and are no longer pathologies and are just with me for maintenance. [T5, L411-413]

Interviewed trimmers highlighted that trimmers starting out in business were in particular need of support and that this need was recognised and provided by trimmer organisations.

...to be, you know, conservative, call in other support, whether that be the veterinary surgeon or refer back to the [training provider name] for further advice if necessary. [T3, L162-163]

I qualified last, last year. And I only started working in sort of December erm doing this, but you know if ever I come across a horse that I just can't, that I need some help with, I can go back to them and they're, they're really, really supportive. There is a fantastic network that they have created, you know, to help everybody startin' out. [T2, L265-271]

7.3.1.2 Measures used by trimmers to help ensure trimming standards were met

Use of hoof testers

The hoof protects the sensitive structures of horses' feet [236] and if too much of this protection is removed the horse experiences pain. Interviewed trimmers used hoof testers to ensure that they did not cause harm. One interviewed trimmer explained that if she had concerns about how to carry out a trim, she would use hoof testers before she started trimming and that she would always use hoof testers towards the end of a trim.

...I tend to test towards the end of my trim, although, if I'm, if there is a specific issue I will test before I trim... [T3, L542-543]

She explained that if she had concerns about how to carry out a trim, she would use hoof testers during the trim to ensure that she did not remove too much hoof wall.

...and if I think there's, you know, horses with very weak feet, and I need to be very careful how much toe height I take and stuff like that, I'll test during my trim as well. So, to make sure I don't, so to try to make sure that I don't take too much foot off in very awkward feet. [T3, L493-496]

Assessing how hooves land

Interviewed trimmers did not consider that hoof shape and hoof functionality were always related (see Section 6.3.2.1). A key aspect for them was how hooves landed (footfall).

...there are an awful lot of horses who perform extremely well with feet that might look a bit asymmetrical or a bit odd to us but my suspicion is that because of how they walk it's not asymmetric when they come to load-bearing... [T1, L167-169]

...looking at the footfall, whether the horse is landing level, how it is landing, whether toe or heel first. [T3, L466-467]

One interviewed trimmer highlighted that she watched horses move before and after trimming. Watching the horse move after trimming was highlighted as a process that she used to satisfy herself that the hoof was balanced (or as balanced as it could be given the health of the foot) at the time she left the yard.

Most of the time I see what I need to see in the walk, but I will trot the horse as well. [T3, L472]

Then, usually, definitely, on a first visit, I will watch the horse walk up and trot up. [T3, L387-388]

...you can see whether the horse is walking the same, better or worse after you have trimmed it, so you've got an assessment there, an immediate assessment. [T3, L513-515]

And then, after you've done the basic trim then, then I will watch the horse walk up again. So, basically, it is as a double-check for making sure that I've got the balance reasonably well... [T3, L509-511]

Nearly all trimmer questionnaire respondents watched the horse walk or trot after the trim. None of the questionnaire respondents reported rarely or never watching the horse walk or trot after the trim. Details about the frequencies with which trimmer questionnaire respondents watched horses walk and trot after trimming are provided in Figure 7.7 (details of the frequencies with which trimmers watched horses walk or trot before trimming are provided in Figure 6.2).

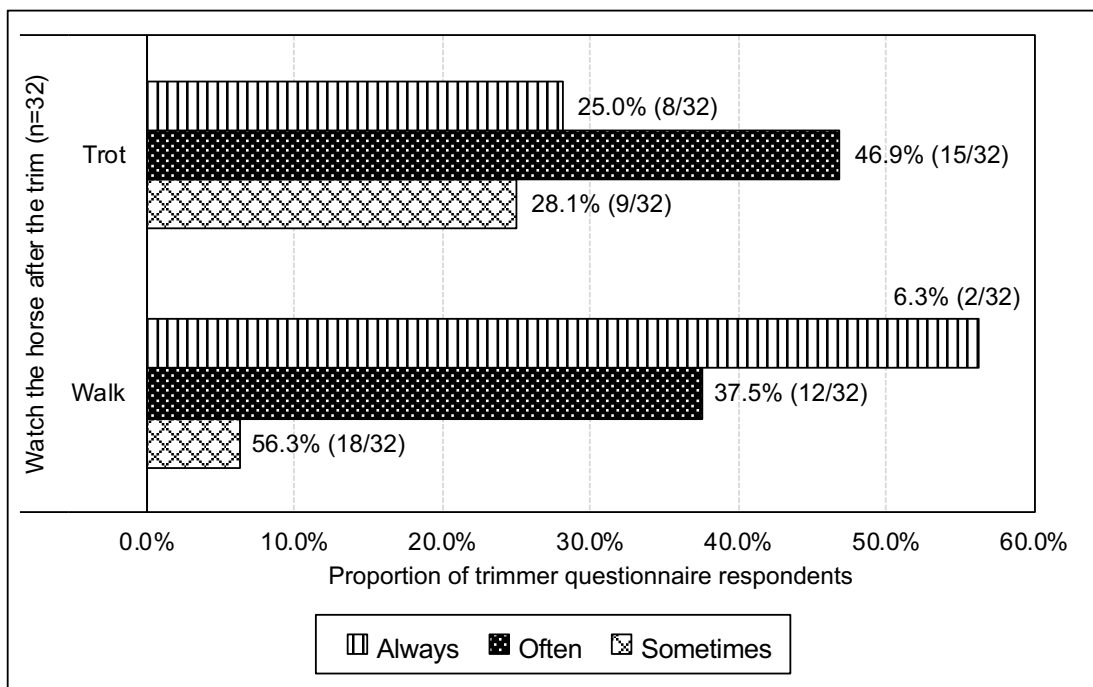


Figure 7.7 The frequency with which trimmer questionnaire respondents watched horses walk or trot after the trim (n=32)

7.3.2 Professional approach to the job

7.3.2.1 Customer service

Trimmers provided a service that was very customer focused. They took the time to involve horse owners in decision-making (goal setting and Plan development). In addition, they were responsive to horse owner needs between visits and also considered that part of the service they provided involved educating owners.

Support and advice

Interviewed trimmers considered that the service that they provided included providing ongoing support and advice to horse owners between scheduled visits. One trimmer highlighted that delivering a high level of support was encouraged by one of the trimmer training organisations, suggesting that this practice was important at an organisational as well as at an individual level.

I think that within the [name of trimming organisation] we're all encouraged to have a bit of an aftercare programme [...] you know, 'Is this going to affect the feet?' erm cos it's so important that erm it's so important that you know, you just can't get away with it with a barefoot horse, whereas you can with a shod horse. [T2, L405-411]

During visits, particularly initial ones, trimmers stressed the availability of the support and advice aspect of the service they provided. They highlighted how providing this service could result in being able to address issues promptly and thus helped to ensure that keeping a horse barefoot was successful.

...but I do say at the outset on the first visit that if they are worried I would still rather they rang, put their mind at rest, sorted it out, than wait 4 weeks/6 weeks whatever when I could have done something about it. [T6, L363-366]

...reinforce that if there's any queries they email me or phone me... [T6, L501]

...if there's a problem my clients will, will phone me up, will be like, you know, 'I'm a bit worried about this, what do you recommend?' you know, you know and if needed I'll, you know, go out and see the horse again. [T2, L395-399]

Interviewed trimmers indicated that not all clients took advantage of the support and advice that they offered but that some clients regularly took advantage of it and others pushed the limits of the service that they offered.

I hope all of my clients, you know, and I know some of them definitely do... [T2, L394-395]

...and I always offer email backup anytime, phone if they need to and some do call me on it. [T6, L361-362]

...some of my customers have been so dedicated they phone me every time the horse farts in the wrong direction, you know. I know if there's the slightest problem they will tell me. [T6, L444-447]

One lady used to ring me often at 9 on a Friday evening which I did think actually was a bit much... [T6, L362-363]

Trimmer questionnaire respondents indicated that nearly all (93.8%, 30/32) of their horse owner clients either often (43.8%, 14/32) or sometimes (50.0%, 16/32) contacted them for advice between trimming visits.

7.3.2.2 Managing expectations when setting goals

In Section 6.3.1, setting goals was discussed in terms of identifying the appropriate goal for a horse. Trimmers emphasised that goals needed to be congruent with the horse owner's expectations. Involving the horse owner in the process of goal setting was considered to help ensure that horse owner expectations were met.

Approaches to goal setting

One interviewed trimmer highlighted that, when dealing with owners of horses with serious foot-related conditions, the process of goal setting started during her initial conversation with the horse owner.

They've blown through all the processes. They might have major navicular, they've blown through all the insurance, they may well have been advised to euthanise the horse, and so on, and so on. [...] I don't promise them that I can save the horse, particularly if they have been told to euthanise it. I say right, we'll come and have a look at the horse and see what I think that I can offer that may not have been tried before. [T3, L6827-689]

Interviewed trimmers tended to manage owner expectations by setting what they considered were realistic or conservative foot functionality goals. The approaches to goal setting that trimmers used reflected their views of appropriate behaviour towards their client and their interpretation of integrity.

I always try to dull down the expectations of the owner and then when things go well, they can see, you know, they feel like they are getting somewhere. So, if you turn around and talk it up, one you are being dishonest and the other one is you are setting yourself up to fail, and the owners, and you don't want that. [T4, L5490-552]

...you have got to give an element of reality to the owners as well and say to them 'Well okay we can achieve this level of hoof health, but it is going to take you 2 years' ... [T5, L583-585]

...you know, particularly in those extreme situations the horse has been sore probably for years and to perpetuate the hope is wrong. [T3, L695-696]

Agreed goals need to be realistic and time-based

Trimmers reported taking time to understand the owner's foot functionality goal and then to determine whether that goal was realistic. Trimmers provided a multitude of reasons why they might consider that an owner's goal was unrealistic. Some related to the owner's willingness or ability to deliver barefoot care (and these were cited as reasons for not taking on a potential client or for ceasing to work with an existing client [see Section 7.2.2]), whilst others related to previous damage to the horse's foot, the activities that the horse owner wanted the horse to undertake, and the genetic make-up of the horse.

...what the hopes for this horse actually are, what they want out of it, what they want to achieve at the end if everything went perfectly well, what's the ultimate aim... [T3, L747-749]

So, if your expectation is that in 6 months' time you are going to go off and event your horse and it's come off the racetrack. Well, guess what... [T4, L382-382]

...some horses just don't have the capability of achieving that foot that is capable of truly proper competition high-level competition barefoot because of previous damage or just poor genetics, you know. Some people have the perfect body shape for playing basketball...other people just are never going to have that body shape you know. [...] So, the real irony is that the horses with the nicest, strongest, thickest most beautiful hooves are the cobs...and the competition horses are very rarely cobs. [T5, L575-582]

Trimmers sometimes considered that the goal was unachievable but at other times it was possible to agree a compromise.

...the rehab of the foot was going to be a 1- or 2-year rehab and they needed to be [competing] in 2 weeks. [T5, L549-550]

...or, to say to them 'well I am sorry, but we can get a level of performance out of this foot that would be adequate as a general riding horse, but actually if you want to go into a competition you are going to have to shoe, not necessarily with metal, but you are going to have to shoe'. [T5, L585-588]

The time that trimmers anticipated that it would take to reach the goal was an important factor in managing owner expectations. Trimmers highlighted that the time it might take for a horse to be comfortable barefoot was extremely variable and that consideration of time was particularly important when a positive outcome was uncertain.

...some people just pull the shoes off and off they go. Erm...but it all just depends on the horse. [T2, L487-489]

So, the real thing is to make sure that you say this is the time frame, this the window in which I expect to see improvements. If we are not getting improvements in that time then we don't keep trying, you know, particularly in those extreme situations the horse has been sore probably for years and to perpetuate the hope is wrong. [T3, L693-696]

So, the real thing is to make sure that you say this is the time frame, this the window in which I expect to see improvements. If we are not getting improvements in that time then we don't keep trying... [T3, L693-695]

7.3.2.3 Record keeping

In human health care, clinical record keeping is considered to be an integral component of good professional practice and the delivery of quality healthcare [237]. Records facilitate sharing of information, assist the process of making informed decisions, and improve the availability of data for root cause analysis when investigating serious incidents [237].

Description of records

Interviewed trimmers reported that, for them, keeping records was routine. They described three types of records: written, photographic, and video. Some trimmers kept very comprehensive written records, detailing facts (date of next appointment and cost), feet-related observations, management-related events that occurred between trimmer visits, and the care and exercise protocols that the trimmer wanted the owner to undertake before their next appointment.

So, what I do is I will write down whether they had pulses in their feet, I'll write down whether they have reactions to the hoof testers, I'll write down the spectrum for each foot, I'll write down comments for, any specific comments, any special comments, so, you know, was the horse lame, or stuff like that, changes between the last trim and this trim, so changes of note, I write down general comments of what I want them to do. [T3, L498-502]

...we make notes of things like, if they saw the dentist, or there was a brief period of lameness... [T5, L284-285]

We tell them obviously when the next visit is. We also give them a quick assessment of what we saw at the time of the visit, plus any written recommendations that need to be done that are the next stage in the management and erm... then just note down what the visit has cost... [T5, L375-378]

In terms of exercise recommendations, one trimmer's approach was to give high-level direction. Another trimmer indicated that her approach varied depending on the condition of the horse's feet. If there were no issues, her advice was given at a high-level but at other times it could be very detailed.

I use a table system regarding their hoof performance, I just tick whichever is the most suitable for the performance of the hoof at their current state of health, so the owner knows where they are and where they are aiming for. [...] so erm you might have, your horse needs rest and time to heal erm... or hand walking only in boots and sole supports, please do not ride and then it goes up to hunting, three-day events jumping above 4ft 6. [T5, L378-389]

...sometimes the exercise routines can be keep going, carry on, no problem, other times it is just don't do walk-canter transitions, you know, stay progressives. Sometimes it can get almost week-by-week prescriptive and development. So, again, depending on where the horse is, what the horse needs, where we are trying to get the horse to and also what the owner can do, and that kind of stuff. [T3, L516-520]

Photographs were an important part of some interviewed trimmers' records. All interviewed trimmers who took photographs did so during their first visit to see a horse. However, the frequency with which they took photographs thereafter varied depending on the trimmer and on the condition of the horse's feet.

It depends...erm if I have a choice, I'd pretty much take photos every time [laughs]... [T2, L363-364]

...if it's a first visit I always take photographs, usually before and after. [T6, L428-429]

So, definitely do that on the first visit and normally do it on subsequent visits. [T3, L345-346]

We take photographs, certainly if you are dealing with a pathology initially you would take photographs at every visit. Erm... as time goes on as it moves into more of a maintenance thing you might take photographs every 3 or 4 visits. [T5, L354-356]

Some interviewed trimmers wrote reports for every horse they visited but others wrote reports less frequently. One interviewed trimmer explained that she only wrote reports for horses that were in work.

...even if the horse is completely sound and it's just a maintenance visit, we make notes of things. [T5, L283-284]

I always, if it's a working horse... a horse that has been worked I always leave them with a bit of paperwork. [T6, L454-455]

Trimmers considered that some owners valued their reports more than others. One trimmer suggested that owner interest waned over time. Another interviewed trimmer highlighted that irrespective of her clients' views, she kept records because she valued them.

After the first visit, unless it's a pathology and I really need to be recording it, I've tended now not to do a spectrum... just because I found ... that people get fed up with all the paperwork. [T6, L455-458]

Usually, I would leave the owner with a written report. Now, you find that some owners are very keen to have those and even though you have explained them most of the time you find that others just file them in the bin. So, sometimes it is more effective just to keep a copy for yourself, a record, a recording for yourself. [T3, L534-537]

Trimmer questionnaire respondents provided details about the frequency with which they left horse owners with a written report. Approximately two-fifths of questionnaire respondents (41.9%, 13/31) indicated that they always left the owner with a written report, whilst a fifth indicated that they sometimes (22.6%, 7/31) left owners with a report and another fifth indicated that they never (22.6%, 7/31) left owners with a written report. The remaining respondents either rarely (9.7%, 3/31) or often (3.2%, 1/31) left owners with a written report.

Ways in which trimmers used records

Interviewed trimmers reported four different ways that records could be used: to monitor progress, to help develop a Plan, to safeguard reputation, and for their own self-assessment.

One interviewed trimmer reported how she used elements of the record to help her develop Plans. She explained that having records helped her to monitor progress and identify measures that had been successful. Monitoring progress was considered to be of benefit to both the owner and the trimmer.

We take very meticulous notes about the hoof because we are trying to take records of what the hoof is like today and then compare them with what they were like the last time we saw them, to give us an idea as to whether the hoof health is improving or whether the measures we have put in place have actually not helped or caused the foot to go back a step, and therefore we need to change the management method or the advice that we gave last time. [T5, L271-276]

I just tick whichever is the most suitable for the performance of the hoof at their current state of health, so the owner knows where they are and where they are aiming for. [T5, L379-381]

Physical measurements are sometimes taken but not always. I personally find it useful if I come up against a crack in a hoof to take a measurement of how high it is to see if it's growing out next time. [T5, L357-359]

Interviewed trimmers highlighted that the records provided an account of decisions and changes over time that could be used (if necessary) to protect their reputation.

...if there's a problem it gets reflected on to us erm and we have to cover our backs so much and it is part of the reason that we have to have the notes and the photographs. [T2, L523-525]

I think it's really handy to take pictures and, in the beginning, when I was first starting, I took pictures for most people just because I felt it covered my back. [T6, L409-411]

It did pay dividends once because once a client came back to me and said, 'Well before you started trimming these cracks weren't there' and I went [...] 'Actually, they were, and they were worse'. She had kind of forgotten that, which was convenient, but I had the evidence. [T6, L411-414]

One interviewed trimmer described how examining photographs off-site provided her with the opportunity to assess the quality of her work.

...and if you've got a photograph and you are sat looking at it on the computer often, I think 'Oh God I've missed that...' I didn't notice that because I was just sort of in the zone. [T6, L419-422]

...it's a tiny crack erm... and then when you suddenly look at it on a computer screen, if you've taken your photos properly erm... it's a whole other thing isn't it... [T6, L424-426]

7.4 Summary

The behaviours described by trimmers indicate that reputation plays an important role in building and sustaining their businesses. Trimmers reported that new clients often approached them following a personal recommendation and thus having a good reputation helps trimmers to attract new clients and increase the size of their businesses. To help ensure the successful delivery of foot-centred care, trimmers screen potential clients and cease working with existing clients. Trimmers consider that it is important to work with owners whose views about their horse's foot functionality potential (the goal) are congruent with their own and who are fully involved in the process of keeping their horse barefoot, including carrying out the Plan. Trimmers spend time building relationships with existing clients and help them to deliver foot-centred care. The records kept by trimmers play an important role in helping trimmers to reflect on their own practice and in safeguarding trimmers' reputations by providing an audit trail that can be used, if necessary, to counter criticisms about their horse care and exercise advice.

8 Pros and cons of keeping horses barefoot: horse owners' perspective

8.1 Overview

Data collected via the horse owner interviews and the horse owner questionnaire are presented in this Chapter. Results are presented for all questionnaire respondents and, when there are statistically significant differences, for the three horse owner typology groups (committed barefooters: n=233; new barefooters: n=290; intermittent barefooters: n=168). Not all questionnaire respondents provided responses to all questions.

The reasons why horse owners keep their horses barefoot are explored in Section 8.2. Horse owners, however, highlighted that keeping horses barefoot was not without costs (financial and other), and these factors are considered in Section 8.3.

8.2 Reasons horse owners decided to keep their horse barefoot

8.2.1 Introduction to reasons horse owners decided to keep their horse barefoot

Horse owner questionnaire respondents were presented with a list of ten factors that might have influenced them to keep their questionnaire horse barefoot (and a free-text box in which to provide details about any other influences). Overall, just under a third (29.7%, 202/681) of all horse owner questionnaire respondents indicated that multiple reasons had influenced their decision to keep their questionnaire horse barefoot. However, compared with committed (19.7%, 44/223) and intermittent (23.2%, 39/168) barefooters, nearly twice as high a proportion of new barefooters (41.0%, 119/290) reported that multiple factors had influenced their decision to take their questionnaire horse barefoot ($\chi^2 [1, 352]=5.754, p<0.000$).

The reasons horse owners gave for choosing to keep their questionnaire horse barefoot were explored by dividing them into two main categories: (i) shoes were not needed (see Section 8.2.2) and (ii) the perceived benefits associated with keeping a horse barefoot (see Section 8.2.3). Some owners provided reasons from both categories. For those who had horses on loan (n=2), the decision to keep their questionnaire horse barefoot had been made by that horse's owner.

Not ridden on roads, so not necessary. Also had suffered from laminitis and gravel issues, all requiring shoes to be removed. [QR_HO577]

Initially to save money. But have owned 3 horses all from youngsters - never needed shoeing at any point in education. [QR_HO196]

He is on loan and his owner required that he is barefoot. [QR_HO324]

8.2.2 Shoes not needed

A range of different factors had led horse owner questionnaire respondents to believe that shoes were not necessary for the well-being of their questionnaire horse. Some respondents who were also farriers highlighted the benefits of keeping horses barefoot. For other respondents (who were not farriers), the recognition of the absence of the need for shoes arose either as a result of advice or had emerged over time. For those whose views had emerged over time, this had either been due to the necessity for shoeing not developing (either as training developed or following a period without shoes) or as a consequence of questioning their own historical practice of keeping their horse shod.

I'm a farrier so I appreciate and value strong healthy feet. [QR_HO183]

My horse never got footsore after backing so I never shod her. [QR_HO378]

She didn't really need shoes on so took them off. [QR_HO599]

My pony has great feet, never lost a shoe, no splits or cracks. So, I wondered why I was bothering to shoe. [QR_HO351]

Some horse owner questionnaire respondents considered that their specific circumstances, for example, the nature of the workload that their questionnaire horse undertook, or the characteristics of their questionnaire horse's hooves, made shoeing unnecessary. In addition, the surface on which the horse worked was identified as a factor in determining whether shoes were necessary.

Moved horses away from stony hacking and wasn't competing needing studs in front feet anymore. [QR_HO487]

Has strong enough hooves not to need shoes. [QR_HO266]

I don't do road hacking. [QR_HO269]

Removing shoes to save money

The idea that keeping their horse barefoot would save them money had only been a factor in a very small proportion of horse owner questionnaire respondents' decisions to keep their questionnaire horse barefoot (7.5%, 51/681). Results did not differ statistically significantly between the horse owner typology groups (χ^2 [2, 681]=346.626, $p=0.077$).

8.2.3 To resolve an outstanding issue

8.2.3.1 To resolve a farrier- and farriery-related issues

Some horse owner questionnaire respondents indicated that their decision to keep their questionnaire horse barefoot was, at least in part, due to a farrier- or farriery-related issue. Small proportions of each horse owner typology group identified farrier- or farriery-related issues as having been influential but there were statistically significant differences (χ^2 [2, 681]=29.611, $p<0.000$) between horse owner typology groups. Only six (3.6%, 6/168) intermittent barefooters indicated that farrier-related issues had been influential in their decision to keep their horse barefoot and the proportion of committed barefooters identifying such problems was approximately half that of the proportion of new barefooters (12.6% [28/223] versus 27.2% [79/290]).

Horse owner questionnaire respondents were asked to indicate whether any of four different farrier- or farriery-related issues had influenced their decision to keep their horse barefoot. Amongst all who highlighted farrier- or farriery-related issues, concerns about how their farrier shod their horse had been influential and, for members of the committed barefooters group, how their farrier treated their horse had also been influential. Full details about the farrier- or farriery-related issues that had influenced horse owner questionnaire respondents to keep their horse barefoot are provided in **Error! Reference source not found..**

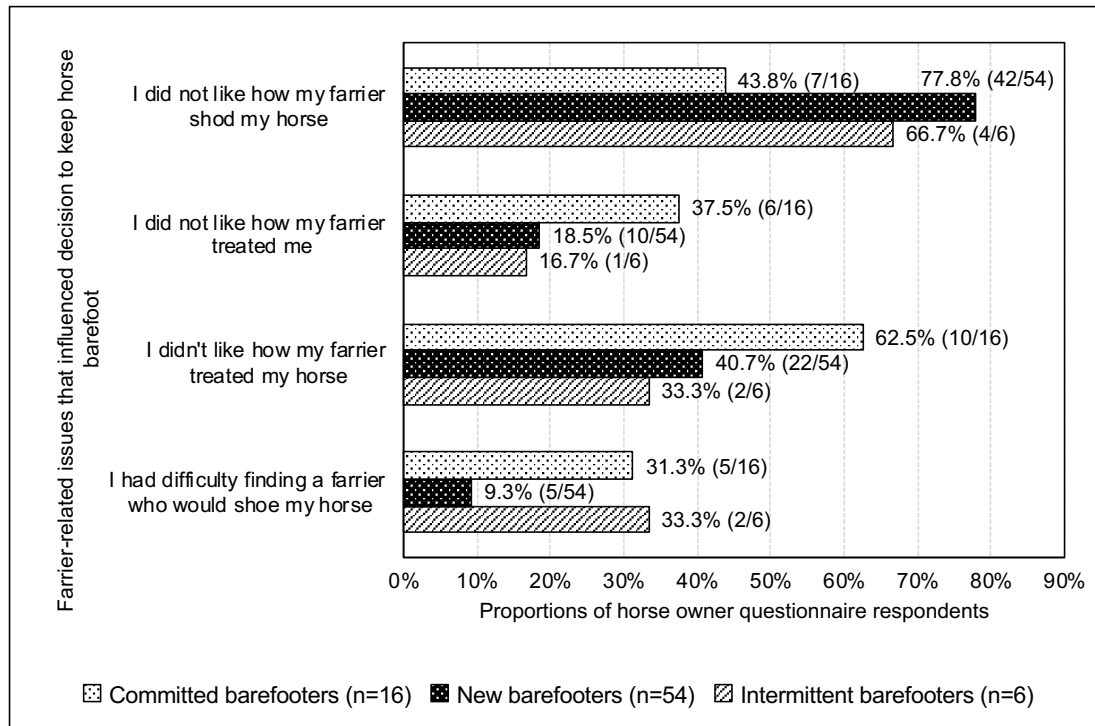


Figure 8.1 Proportions of new and committed barefooter horse owner questionnaire respondents who reported four different farrier- and farriery-related issues having influenced their decision to keep their horse barefoot (n=76)

Some horse owner questionnaire respondents took the opportunity to provide details about their reasons for keeping their questionnaire horse barefoot in a free-text box. The farriery-related reasons provided by horse owner questionnaire respondents related to a desire to improve safety (although, it is not clear whose safety), and a desire to avoid their horse being stressed (or medicated to minimise stress) during the shoeing process.

Dangerous to shoe. [QR_HO92]

Horse can be nervous so shoeing not in her interests. [QR_HO130]

Horse would have to be sedated to be shod was the main reason. [QR_HO615]

8.2.3.2 To resolve a horse health-related issue

Some committed barefooter horse owner questionnaire respondents explained (in a free-text box) that they had made the decision not to have their current horse shod due to a barefoot approach having resolved a foot-related issue experienced by a previous horse that they had owned. These owners seem to have acted defensively to protect their current horse from the harm experienced by their previous horse.

First horse had problems fixed by barefoot which made me go barefoot with the next one. [QR_HO465]

My previous horse had mechanical issues in shoes and came sound barefoot, so it's my choice to keep all my horses that way now if possible. [QR_HO160]

For some horse owner questionnaire respondents who owned a questionnaire horse with a foot-related condition, the decision to keep their questionnaire horse barefoot had been instigated by a conventional hoof care expert. In other cases, the prompt had come from an acquaintance and in yet other cases, the owner had embarked upon this approach to hoof care based on their conclusions.

My farrier supported barefoot as a better way of dealing with my horse's issues than heart bars. [QR_HO428]

On the advice from vet following soft tissue injuries and arthritis diagnoses. Vet recommended either egg bars to support heels, or no shoe, to allow heels to support themselves. We tried both and barefoot suited the horse much better. [QR_HO583]

Someone told me my mare [who had been shod for 3 years] was toe striking not heel and suggested I speak to a trimmer. [QR_HO461]

Knee joint arthritis diagnosis - logic told me that permitting further percussion of forces upward to a comprised joint was daft. [QR_HO473]

In some cases, a planned temporary period of keeping their questionnaire horse barefoot had led to this becoming the permanent approach. The temporary period had not necessarily been initiated by a foot-related issue.

His shoes were removed due to a period of time off work due to injury. [...] and he has remained barefoot over the past 15 months and will continue to be unshod. [QR_HO451]

Horse had to have shoes off for kissing spine operation and I watched his feet grow out tighter and healthier so left them off. [QR_HO605]

The underpinning issue: hoof quality

Poor hoof quality was sometimes believed to cause the horse to move in a way that was considered to be suboptimal (although not always categorised as lame). Interviewed horse owners and horse owner questionnaire respondents highlighted that the issue of hoof quality was sometimes raised by a farrier and at other times identified by the horse owner.

... he was finding that it was easier to walk on his heels than his feet because it was more comfortable, the heels had got that long and the feet had got like short. [HO4, L56-58]

Farrier recommended as he had bare hinds and the fronts kept cracking up the middle because of splaying. [QR_HO622]

Didn't like how the quality of the hooves changed in the 6 weeks shod period. [QR_HO671]

Horse owner questionnaire respondents provided details (in a free-text box) about foot/hoof problems that were apparent at the time when they chose to keep their questionnaire horse barefoot. Shoes not staying on were of concern for some horse owners. One questionnaire respondent indicated that losing shoes was an issue and that shoe loss could lead to riding plans needing to be modified. Another owner described a negative feedback loop between losing shoes and hoof quality.

We live in a very wet area of the country. Keeping horses shod here means an unending round of pulled and lost shoes in the bogs and mud. [QR_HO578]

... and I never have a day I can't ride because my horse has lost a shoe. [QR_HO120]

I didn't want to run the risk of pulled shoes in awful winter fields. [QR_HO467]

Poor hoof quality, frequently pulling shoes, causing further damage to foot. Borderline unable to shoe due to loss of hoof. [QR_HO478]

There was a statistically significant difference (χ^2 [20, 681]=360.436, $p<0.000$) between the proportions of members of the three horse owner typology groups who, at the point they decided to keep their questionnaire horse barefoot, considered the

quality of that horse's hooves was poor. Just over a quarter of new barefooters (27.9%, 81/290) considered that the quality of their questionnaire horse's hooves was poor; however, only about a tenth of committed and intermittent barefooters held this view (committed barefooters: 7.2%, 16/223; intermittent barefooters: 12.5%, 21/168).

The underpinning issue: lameness

This issue only relates to the new and intermittent barefooters as (by definition) the committed barefooters' horses had always been barefoot, although responses from three committed barefooter respondents suggest that their questionnaire horses were lame when they first acquired that horse.

Overall, just under a fifth of the new and intermittent barefooters' questionnaire horses were lame at the time they decided to keep that horse barefoot (17.7%, 81/458). This difference was statistically significantly different (χ^2 [1, 458]=75.289, $p<0.000$). Compared with intermittent barefooters, more than twice as high a proportion of new barefooters' questionnaire horses were lame at the time they changed from keeping them shod to keeping them barefoot (new barefooters: 22.8%, 66/290; intermittent barefooters: 8.9%, 15/168).

Approximately one third (32.1%, 26/81) of horse owner questionnaire respondents whose questionnaire horses were lame at the point they decided to keep that horse barefoot, indicated that their horse suffered from navicular syndrome/caudal heel pain (new barefooters: 30.3%, 20/66; intermittent barefooters: 40.0%, 6/15) and just under one quarter (23.5%, 19/81) indicated that their horse suffered from laminitis (new barefooters: 22.7%, 15/66; intermittent barefooters: 26.7%, 4/15). These differences were not statistically significantly different (navicular syndrome/caudal heel pain: χ^2 [1, 81]=0.527, $p=0.468$; laminitis: χ^2 [1, 81]=0.106, $p=0.745$). Some respondents provided details about the cause of their horse's lameness in a free-text box. Reported causes of lameness that related to the horse's foot were broken pedal bone, arthritic changes to the coffin joint, and counter-rotated pedal bones in both hind feet. Reported causes of lameness that related to more proximal (i.e., closer to the torso) parts of the horse's body were bilateral hind limb suspensory ligament desmitis, hock arthritis, suspensory ligament injury, and sidebone. Some horse owner questionnaire respondents highlighted that the cause of their questionnaire horse's lameness had not been diagnosed, whilst others indicated that their questionnaire horse suffered from multiple problems.

...navicular diagnosed, barefoot offered longevity and a healthier foot at the same time. [QR_HO267]

Diagnosed with kissing spine, SI [sacroiliac] damage, bilateral PSD [proximal suspensory desmopathy], arthritic hocks barefoot to reduce stress on joints. [QR_HO399]

A front leg would swell with no real pattern. Didn't like how the feet looked so desired to let him sort his own balance. [QR_HO567]

Some of the horse owners who were interviewed cited hoof-related problems experienced by one of their horses as being the reason why they changed from keeping that horse shod to keeping that horse barefoot. The trigger had either related to ongoing issues or a single episode (that had only been resolved by removing a horseshoe).

... he's a 9 year old Thoroughbred, he was 4 when got him and basically, I've just tried everything over the years with his feet. He's been intermittently lame all the time... [HO1, L37-39]

...and we checked that and we said, this is erm... left fore and we couldn't actually or the farrier couldn't solve the issue other than just taking the [shoe] off and then she wasn't lame and we checked that and we said, this is erm...left fore. [HO5, L31-33]

Nearly all (96.3%, 78/81) of horse owner questionnaire respondents who identified that their questionnaire horse was lame at the time when they decided to keep that horse barefoot provided details about how long their questionnaire horse had been lame when they made this decision. Just over one tenth (14.1%, 11/78) of these horses had been lame for more than a year... but the remainder (85.9%, 67/78) had been lame for less than a year (<3 months: 38.5%, 30/78; 3-6 months: 28.2%, 22/78; 7-12 months: 19.2%, 15/78). Whilst not quantifiable, horse owner questionnaire responses (provided in the free-text box) indicated that the severity of the lameness conditions influencing their decision to keep their horse barefoot ranged from the relatively mild to severe (potentially requiring euthanasia).

Hooves were not balanced causing body issues. [QR_HO441]

We'd been told by vets and two blacksmiths to have him put down. [HO4, L55-78]

Information collected from horse owners via the interviews and the horse owner questionnaire showed that some horse owners who chose to keep their horse barefoot as a consequence of foot-related conditions were going against advice provided by a veterinary surgeon and/or a farrier. Whilst some of these owners saw adopting a barefoot approach as a 'last resort', others saw the suggested conventional approach as being flawed (and would perpetuate harm).

I was told by the vet that we had exhausted all corrective farriery options and the only remaining choice was to shoot the mare.
[QR_HO499]

I had absolutely nothing to lose as I was looking at euthanasia on ethical grounds as the only other alternative. [QR_HO550]

...and the vet said we should go down the remedial farrier route. I went, no, I don't want to do that, I just don't agree with that at all... I just thought, nah that just sounds like the horse you are putting their feet and their legs in a position that isn't natural to them and I don't think that's right. [HO2, L59-69]

8.2.4 Wider benefits delivered by keeping horses barefoot

Horse owners considered that keeping their horse barefoot had not only benefited their horse's feet but had also led to wider health (physical and mental) benefits. They also highlighted that keeping their horse barefoot had influenced other horse owners to keep their horses barefoot. In addition, horse owner's highlighted that there were benefits for themselves including personal satisfaction and a motivation to make changes to their own lifestyle.

8.2.4.1 Improve horse health and well-being

Whilst some horse owner questionnaire respondents held long-standing beliefs about the harm caused by horseshoes, for others this was a more recent discovery that had been revealed through their own research.

I've seen many a horse ruined and lamed by bad shoeing over the years, many also getting injury after injury. All the sound, fit and healthy horses were barefoot. Also being trained and working alongside many traditional horsemen and women who knew the importance of allowing the horse a rest from shoes to allow the hoof to recover. It isn't rocket science to figure out which method allows for a longer healthier happier working life. [QR_HO374]

Did a lot of research into barefoot and it opened my eyes to potential problems shoes can cause... [QR_HO356]

I couldn't see how adding weight and holes to a fragile foot would help then since discovered the barefoot movement. [QR_HO184]

Hoof morphology

Interviewed horse owners reported that the morphology of their horses' hooves altered following the change from keeping their horse shod to barefoot. The specific changes mentioned were that a crack had grown out (contrary to conventional hoof care advice) and that hoof dimensions had changed. One interviewed horse owner considered that the change in the size of her horse's hooves was an improvement as she believed that the new hoof size better matched her horse's size.

...the crack that... probably five/six farriers who have seen him over the years have basically, the crack that they said would never ever grow out has, is growing out. [HO1, L239-241]

... his feet have gone better and thicker. [HO4, L248-249]

He's gone down... he was a size 5 when we started him with them, so a little Thoroughbred with size 5 whacking big feet, you know. He's now in a size 3 in the Cavallo. [HO1, L334-336]

Other changes identified by horse owner questionnaire respondents related to hoof growth and foot function.

Enable proper hoof growth. [QR_HO65]

To allow her foot to function correctly. [QR_HO472]

Hoof pathology

Interviewed horse owners reported reductions in levels of thrush and a complete cessation of incidents of laminitis. For the owner who reported the cessation of incidents of laminitis, the only difference she had identified was changing from employing a farrier to employing a trimmer.

We get significantly less thrush, we hardly get any at all, it has made a colossal difference to the thrush level. [HO3, L177-178]

The other thing that was really interesting and I don't know whether it had a... but he never, ever had another dose of laminitis after his feet were trimmed differently [by trimmer rather than a farrier]. [...] He had exactly the same food, exactly the same routine, everything. But after we changed the way his feet were done, he never, ever got another bout of laminitis. [HO4, L115-120]

Overall health and well-being

Horse owner questionnaire respondents described (in a free-text box) how keeping their horse(s) barefoot had led to improvements in the way their horse(s) moved and also to the physical and mental health of their horse(s). Some horse owners identified multiple benefits.

They are brighter, they move better. Overall, much more healthy. Never slip on roads, very sure footed. Less spooky. I could go on, but it would take an essay. [QR_HO423]

Barefoot has been a life changer and life saver for my horse. He physically and mentally changed the day his shoes came off. [QR_HO593]

Interviewed horse owners and horse owner questionnaire respondents also perceived improvements in the way their horse's body functioned. In some cases, the improvements were believed to be a direct consequence of lameness issues having been resolved but in other cases the horses had not been perceived to be lame before their horseshoes were removed. The improvements in the way the horse's body functioned were expressed as improved circulation, reduced stress on joints and reduced limb inflammation (which may be linked to reduced stress on joints). One owner highlighted that her experience had been that the benefits had persisted.

...but in himself you can tell that he's happy and he's thumping around the field and leaping about, and I think well he didn't use to do that when he had shoes on. [HO1, L421-423]

...and all of them are much better off now, I feel, barefoot than they were when they were shod... [HO3, L102-103]

I believe that the horses' body is able to work better when they are barefoot. [QR_HO510]

... their legs fill less when stabled. [QR_HO129]

Made a massive difference. At 5 my mare came out of her stable stiff every morning through winter- I used to bandage every night all round. After removing shoes she was no longer stiff, and the bandages were forgotten. She's now 17 and living out with a supplement and we still don't have stiffness issues. [QR_HO601]

Interviewed horse owners identified three different types of improvements to the well-being of their horse, namely, increased levels of energy and enthusiasm, increased suppleness, and improvements to mental health.

... I couldn't even get him up the lane and I used to think to myself he was just napping and just being... he just used to plant, and I thought he was just napping ... Whereas now, you get on him at the gate and he's, before your bum's in the saddle he's striding off and he really strides out. [HO1, L316-321]

... but the difference in [pony name] was just unreal, it was just like he became a new pony. We'd had him, we'd had him about 5 years by then. He'd never been able to walk on hard ground. We'd never seen him trot. ... he was cantering around the fields. [HO4, L75-78]

Huge difference. Mainly their mental health apart from anything else. [HO3, L146]

...and calmer in their work and less stiff, especially with the older ponies... [HO3, L160-161]

Horse owner questionnaire respondents identified benefits that related to the way that the horse moved, namely the horse moving more smoothly and a change in the trajectory that the horse's limbs followed when moving.

It feels much nicer to ride a barefoot horse, the horse feels more fluid, and there is no jarring up through the joints from the metal shoes.

[QR_HO149]

My horse's feet have improved beyond recognition and so has his foot balance and gait, he used to dish badly but it is much straighter now.

[QR_HO622]

Horse owner questionnaire respondents identified a range of ground surface conditions where incidents of slipping had been reduced or had disappeared as a consequence of the horse being barefoot. The benefits of reduced slipping were articulated in terms of improved safety (avoiding an accident) and rider confidence.

I feel that my horse is more comfortable barefoot than shod, he is certainly more comfortable when descending slopes and does not slip anywhere near as much as when he was shod. [QR_HO651]

I feel much more confident on damp Cornish slippy lanes. Shod horses slide down these steep hills. [QR_HO667]

Less slippy on new Tarmac, snow and mud. [QR_HO535]

My experience of riding and training shod and barefoot horses is that the latter are much more sure footed and safe in most conditions where one might expect the opposite to be true. [QR_HO425]

8.2.4.2 Horse management

Multiple management-related benefits were highlighted by one horse owner questionnaire respondent. These related to reduced physical damage (to the horse and/or property), making the horse easier to manage and an ability to identify issues before they became problems.

There are SO many situations when I'm so glad my horse doesn't have shoes! Eg when friends' horses have lost shoes and gone lame, when friend's horses have had their horses' shoes stuck in haynets or fencing, when my horse doesn't slip on the concrete... [QR_HO148]

Safety

Horse owner questionnaire respondents considered that keeping their horse barefoot protected horse (and human) well-being as, compared with a shod hoof, less damage was likely to occur if contact was made between a horse (or human) and an unshod hoof.

Safety of other horses and handlers from kicks, broken toes, etc.

[QR_HO139]

... it's safer if you are trodden on or horses are playing in the field.

[QR_HO231]

An early warning system

Owners considered that one of the benefits of the barefoot approach was that it provided feedback (that could not be obtained when the horse was shod) that helped them monitor their horse's health and, therefore, provide timely intervention (if necessary).

Watching the foot change in response to diet, stress level, environment, work etc, makes it clear how much information could be missed if caring for a shod horse. [QR_HO179]

The bare hoof is the best tool for feedback on health we have. If your horse is sound barefoot it's probably pretty healthy! [QR_HO76]

The state and functionality of the hoof reflects the well-being of the horse, so I'd rather pick up any issues quickly than have them masked by a shoe. [QR_HO172]

8.2.4.3 Influence on other people

Barefoot horse owners considered that the effect that keeping their horse barefoot had on others could be positive and highlighted how it had influenced others' opinions and practices. One interviewed horse owner recounted the following incident which had had a profound effect on her beliefs about the need for shoeing.

I had always been led to believe that it was necessary to have a horse shod if it was in regular work and that is what I had always done with mine. I went and did a long-distance fund-raising ride in [location name] and rode a Highland pony for up to 9 hours each day for a whole week across some fairly horrendous terrain and she was barefoot and used

boots for the worst section ... I spoke to the lady who ran that centre ...and she had far fewer lameness problems with her barefoot horses and I could see, as a horse owner, that the horses were clearly very comfortable and very happy barefoot and that they were sound and that they were going nicely and all of this sort of thing. So that led me to think why do I bother putting shoes on my horse who goes out for maybe 4 hours in a week, when I can ride a horse in [location name] for 9 hours a day without shoes on and it got brilliant feet and is clearly very comfortable. [HO3, L32-47]

Amongst horse owner questionnaire respondents, there was a statistically significant difference between the horse owner typology groups in terms of whether seeing another horse being successfully kept barefoot had influenced their decision to keep their horse barefoot ($\chi^2 [2, 681]=352.547, p<0.000$). This type of experience had influenced just under two-fifths of new barefooters (37.6%, 109/290), just under one-fifth of committed barefooters (18.8%, 42/223) and approximately a quarter of intermittent barefooters (25.6%, 43/168). The context in which barefoot horse owners heard about horses being successfully kept barefoot was not explored in the questionnaire.

There were different views on the length of the interval between people first seeing a horse being kept barefoot and these individuals changing their minds about this practice. The experience of one interviewed horse owner was that this interval had been about 6 months. Another interviewed horse owner had been surprised that it had taken people months rather than years to change their minds, however, this horse owner also highlighted that her experience had been that the time that it took for individuals to change their minds varied.

They... obviously they have seen the improvement in his feet and how they were 6 months ago to how they are now and they kind of, I think they are coming round to my way of thinking as well really. [HO1, L328-330]

And then it rather took off in a way that I didn't expect and I thought it was going to be years and years and years before people started going, 'Oh yes actually that is working and [HO3's] horse is doing very well' and all this sort of thing, and actually it was a matter of months and people were going, 'Well it worked for [HO3's horse name] maybe

we should try something else, maybe we should take the shoes off another pony'. [...] and we have got quite a few liveries and of course, I had no say or control in whether they remain shod and barefoot and they have all independently and in their own time chosen to take the shoes off and they are all still barefoot... [HO3, L249-265]

8.2.4.4 Benefits for the horse owner

Personal satisfaction

Horse owner questionnaire respondents perceived that adopting a barefoot approach to caring for their horse had led to personal benefits. These rewards were expressed in terms of a sense of achievement, satisfaction from improving the quality of care provided to their horse, an improved relationship with their horse and a sense of fulfilment resulting from gaining greater knowledge about how their horse functioned.

It's very rewarding getting your horses feet to function well barefoot.
[QR_HO121]

Incredibly rewarding. Best thing I have ever done for my horses.
[QR_HO423]

It results in a better relationship with your horse, a deeper knowledge of how they function and a sense of putting their well-being first.
[QR_HO127]

Compatible with the owner's world view

Responses to the trimmer questionnaire (see Section 5.3.2.2) showed that keeping horses barefoot was aligned with several different moral stances relating to shoeing horses. Similarly, horse owner questionnaire respondents held a range of different opinions. Some horse owner questionnaire respondents had decided to keep their horse barefoot due to negative views about shoeing.

I think that nailing a piece of metal to a live animal is wrong.
[QR_HO186]

Nailing metal to an animal is barbaric in this age where so many alternatives are available. [QR_HO60]

For other horse owner questionnaire respondents, the decision had been more about their general approach to care rather than being anti-horseshoes. Some horse owner questionnaire respondents highlighted that they considered that keeping their horse barefoot was compatible with their desire to adopt a holistic approach to care whilst others favoured a natural approach to care. However, whilst some saw a barefoot approach to hoof care as being aligned with a natural approach, others considered that the concept of 'natural' was not compatible with keeping a horse in a domesticated setting. In addition, one owner expressed the view that barefoot, rather than being a natural approach, was an approach that was supported by science.

I use a holistic approach to horse health and healthy functional hooves are part of this. [QR_HO494]

I think it's better for the horse...as nature intended. [QR_HO283]

Not so much a natural approach, as a science backed approach - I believed that the literature supports a barefoot approach. [QR_HO164]

Horses are born to move and run, however, trying to pretend one can keep them in any sort of 'natural' way is a fallacy and a quite ridiculous concept used to further sales of one sort or another generally. [QR_HO674]

Just over half (54.9%, 374/681) of all horse owner questionnaire respondents were influenced to keep their horse barefoot because they believed that a natural approach to hoof care was best. However, the extent to which this belief had been influential differed by horse owner typology groups ($\chi^2 [2, 681]=379.699, p<0.000$). Nearly three-quarters (74.4%, 166/223) of committed barefooters had been influenced to keep their questionnaire barefoot because of this belief. In contrast, just under half of new and intermittent barefooters had been influenced to keep their questionnaire horse barefoot by the belief that a natural approach to hoof care was best (new barefooters: 49.0%, 142/290; intermittent barefooters: 45.2%, 76/168).

One horse owner questionnaire respondent considered that, from a moral perspective, keeping their horse barefoot might be the optimal approach although there might also be welfare reasons for shoeing. Essentially, she considered that her horse's welfare took priority over her world view.

I do believe natural is best but will shoe if needed. I will not compromise my horse's comfort. [QR_HO389]

Horse owners' health: diet and mental attitude

A wider benefit that was not horse-related was articulated by one horse owner questionnaire respondent who had found that obtaining new equine knowledge had prompted her to reconsider her own food choices.

It made me reconsider my own diet, cutting out sugar and processed foods, and moving to organic food. [QR_HO590]

Horse owner questionnaire respondents were asked if they considered that keeping horses barefoot was empowering. Overall, about a third of respondents either agreed or strongly agreed with this view (35.4%, 241/677) and a further third were ambivalent (neither agreed nor disagreed: 35.0%, 237/677). However, respondents' views about whether keeping horses barefoot was empowering differed statistically significantly between the three horse owner typology groups ($\chi^2 [8, 677]=29.330$ $p<0.000$). The most notable difference was that the proportions of committed and new barefooters who strongly agreed that keeping horses barefoot was empowering were about twice as high as the proportion of intermittent barefooters who held this view. Further details about horse owner questionnaire respondents' views on whether keeping horses barefoot was empowering are provided in Figure 8.2.

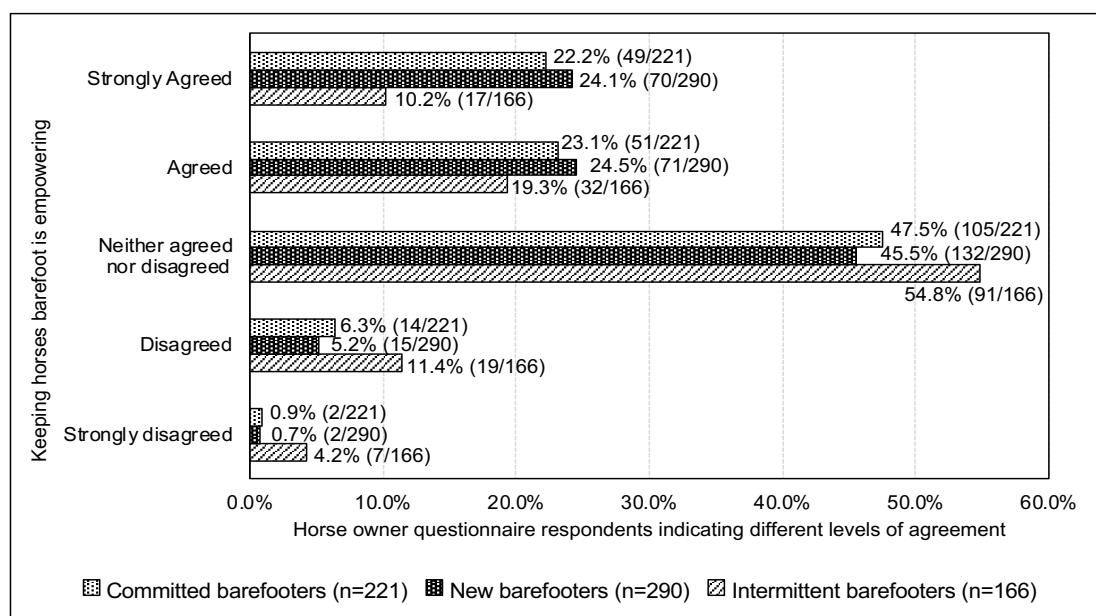


Figure 8.2 Proportions of horse owner questionnaire respondents indicating different levels of agreement with the view that keeping their horse barefoot was empowering (n=677)

8.3 Views on costs (financial and other) of keeping a horse barefoot

Horse owners highlighted numerous benefits arising from keeping their horses barefoot, but they also highlighted some costs (financial and other). Identified costs related to money, time, and restrictions to their horse's workload, however, not all owners considered that these represented costs. Another cost identified by horse owners was having to cope with others' negativity towards their choice to keep their horse barefoot.

8.3.1 Financial

Some horse owner questionnaire respondents considered that keeping horses barefoot saved money (information provided in a free-text box).

Far cheaper and better for the hoof capsule to go without nails.

[QR_HO578]

Initially to save money. But have owned 3 horses all from youngsters - never needed shoeing at any point in education. [QR_HO196]

However, other horse owners suggested that keeping horses barefoot might be more expensive than keeping them shod.

It's not a cheap option and it takes dedication to maintain a healthy foot. [QR_HO556]

I have to... I don't work ... I have to justify everything to my husband, you know, with the horses and trying to justify the extra cost to him was... [HO1, L217-218]

It is not cheaper, you will need to cut out processed foods and pay more attention to foot health. [QR_HO261]

Horse owner questionnaire respondents were also asked whether they considered that keeping a horse barefoot was cheaper than keeping a horse shod. Overall, just over two-fifths (43.8%, 296/676) of respondents strongly agreed or agreed that keeping horses barefoot saved money and just over a quarter (27.5% 186/676) disagreed or strongly disagreed that it saved money. However, opinions differed statistically significantly between the horse owner typology groups (χ^2 [8, 676]=20.358, $p=0.009$). Detailed results about the extent to which horse owner questionnaire respondents considered that keeping horses barefoot saved money are

provided in Figure 8.3. Differences between horse owner typology groups became clear when the questionnaire responses were aggregated into three groups: Agreed (strongly agreed and agreed), Ambivalent (neither agreed nor disagreed) and Disagreed (disagreed and strongly disagreed). Results then showed that more committed and intermittent barefooters Agreed (committed barefooters: 45.4%, 99/218; intermittent barefooters: 53.6%, 90/168) rather than Disagreed (committed barefooters: 27.5%, 60/128; intermittent barefooters: 21.4%, 36/168) that keeping horses barefoot was cheaper than keeping horses shod. Whilst, in contrast, new barefooters were fairly evenly split between these two opposing opinions. (Agreed: 36.9%, 107/290; Disagreed: 31.0%, 90/290).

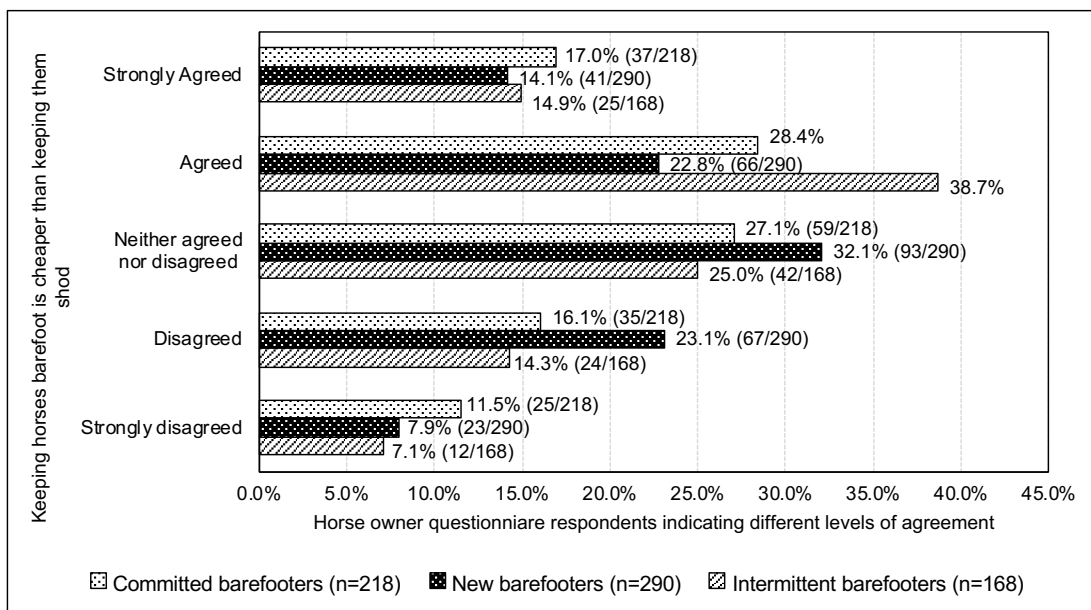


Figure 8.3 Proportions of horse owner questionnaire respondents indicating different levels of agreement with the view that keeping a horse barefoot cost more than keeping a horse shod (n=676)

8.3.2 Time-related costs

Interviewed horse owners described how the change to keeping their horse barefoot had been accompanied by making 'lifestyle changes' for their horse, including changes to diet, structured exercise and turn out (unstructured exercise) as well as treating infection.

...you need to be willing to make other changes, it's not that you switch to a barefoot trimmer it's that you make the changes to diet and lifestyle that are necessary as well.... [HO3, L188-190]

Time-consuming tasks highlighted by one interviewed horse owner included obtaining horse food and sourcing (and modifying) hoof boots.

I don't think we will ever find the perfect fit but we just kind of botch them a little bit so that they do fit and so we have got [unclear] boots and I have also just managed to find a couple of pairs of the original Old Macs which are not made anymore. The new shape ones don't seem to fit him as well as the old shape ones, which are like hen's teeth to find and I managed to find two pairs of them in the last couple of weeks. [HO1, L340-345]

It's not as easy as just going to the local saddlers and just picking up a bag of this feed because not many places sell it. [HO1, L275-277]

Horse owner questionnaire respondents were asked whether they considered that keeping a horse barefoot routinely took more time than keeping a horse shod. Overall, approximately a third (33.6%, 228/678) of respondents strongly agreed or agreed that keeping a horse barefoot was more time consuming than keeping a horse shod, and approximately two fifths of respondents (39.8% 2703/678) disagreed or strongly disagreed that it took more time. However, there were statistically significant (χ^2 [8, 678]=38.041, $p<0.000$) differences between the horse owner typology groups. Detailed results about the extent to which horse owner questionnaire respondents considered that keeping horses barefoot routinely took more time than keeping horses shod are provided in Figure 8.4. Differences between horse owner typology groups became clear when the questionnaire responses were aggregated into three groups: Agreed (strongly agreed and agreed), Ambivalent (neither agreed nor disagreed) and Disagreed (disagreed and strongly disagreed). Results then showed that approximately a quarter of committed and intermittent barefooter respondents Agreed that keeping a horse barefoot was more time consuming than keeping a horse shod (committed barefooters: 27.5%, 61/222; intermittent barefooters: 25.1%, 42/167) and approximately two-fifths of these respondents Disagreed with this view (committed barefooters: 44.1%, 98/222; intermittent barefooters: 45.54%, 76/167). In contrast, approximately four-fifths (43.3%, 125/289) of new barefooters Agreed that keeping horses barefoot was more time consuming than keeping a horse shod and approximately a third Disagreed with this view (33.2%, 96/289).

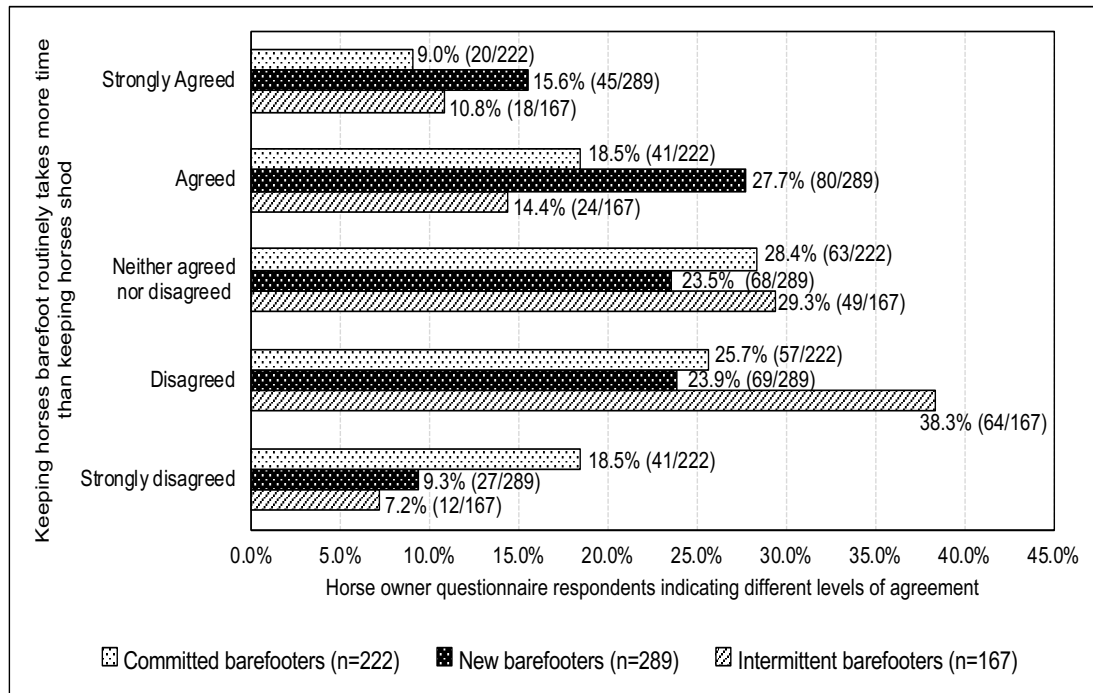


Figure 8.4 Proportions of horse owner questionnaire respondents indicating different levels of agreement with the view that keeping a horse barefoot was more time consuming than keeping a horse shod (n=678)

Interviewed horse owners described how the transition process from shod to barefoot took time, i.e., the benefits of keeping horses barefoot took time to be realised.

His feet are coming right but erm... it's taking a long time and it will take a long time going forward. [HO1, L48-49]

To me, it's the difference between treating that horse into his old age or probably losing him at probably 12/13 years old and I think what I sacrifice now I will get back in the future. [HO1, L302-305]

8.3.3 Restricted workload

Some horse owner interviewees highlighted having (at least for a while) to forgo or reduce the amount of time they spent riding. These comments related to the transition period, a period that was not directly explored in the horse owner questionnaire. Most horse owner questionnaire respondents considered that the level of workload their horse was able to undertake was not restricted by the horse being barefoot (see Section 9.3.2.1), which may indicate that most respondents' horses had completed the transition phase.

... like I was a great hacker and we would go for 4- or 5-hour rides and obviously initially we couldn't do that. [HO2, L174-175]

I have not been able to ride him as much as I probably would have done had he had shoes on, but erm... he's basically kind of... I'm... I've had to sacrifice riding him a little bit. [HO2, L295-297]

8.3.4 Others' attitudes

Interviewed horse owners highlighted negativity from several sources, namely veterinary surgeons, farriers, other horse owners and family members.

Veterinary surgeons and farriers

Horse owners' perceptions were that whilst some farriers and veterinary surgeons supported keeping horses barefoot, others considered that there were welfare implications associated with this approach. One owner felt that her veterinary surgeon had suggested that she had acted irresponsibly when she took the shoes off her horse.

So, I found a farrier luckily in my area who also specialised in barefoot trimming. [HO1, L144-145]

...and I know quite a few vets who are very pro barefoot. [HO3, L233-234]

Obviously, my vet was very, and he still is very, anti-barefoot... he's of the mindset that horses need shoeing and I had... not an argument as such about it, but we had a bit of a discussion should we say. He was kind of... almost kind of saying that I was comprising the horse's welfare if I took his shoes off, which I found quite hurtful. [HO1, L434-438]

Interviewed horse owners whose horses had received veterinary care for extended periods due to hoof-related conditions that had not been resolved using conventional methods highlighted how they had gained knowledge which had resulted in them no longer fully trusting veterinary advice.

...they have only tended to come for flu jabs and things lately because we gave up on legs... they only ever tell you to box rest and he's not insured anymore so we don't need to go down any fancy routes, we know what's wrong. ... me and vets don't always see eye to eye anyway. [HO4, L305-312]

A friend of mine with the same vet she lost her horse to laminitis a few weeks ago [...] and I just think to myself I wish he had just maybe thought about speaking to a trimmer or something like that or just... thinking outside the box a little bit. I am not saying it would have worked but... [...] But again, I know so much more now than I did 2 or 3 years ago. Whereas if that was me 2 or 3 years ago of course I would have listened to my farrier and my vet because they are the experts, not me.
[HO1, L450-459]

Other horse owners

Interviewed horse owners linked other horse owners' support (or lack of support) for keeping horses barefoot with certain equine activities. The activities associated with a lack of support for horses being barefoot were dressage, cross country, hunting and show jumping. However, there was disagreement between interviewed horse owners in terms of their perceptions of the views of those who competed in endurance events. One interviewed horse owner considered such competitors were generally supportive, whilst another (who had competed widely in such events) had met with opposition, specifically in terms of wearing boots.

Very mixed, very mixed. I think in the endurance world they tend to accept it I think they are very open to that and yes, you know, erm... a lot of people are very interested. But if you go down the other routes, the jumpers and the... show jumpers and cross country people... oh no you can't do without shoes, you definitely can't do it without shoes. Also, dressage people... [HO4, L275-279]

I live in an area where there's kind of a lot of hunting people, very traditional shoeing people – horses have shoes on and that's it. [HO1, L172-174]

Well at one time it was very silly things that people used to, vets used to say, well you have got to take those off. [HO5, L664-665]

The attitudes of owners of shod horses to seeing horses kept barefoot were reported to have been mixed. One interviewed horse owner stated that people had been surprised that she kept her horse barefoot. She considered that this had been due to the size of her horse and the fact that her horse participated in competitions. The perception of other interviewed horse owners was that other people thought their

actions ill-judged and one interviewed horse owner highlighted that people had been concerned that her horse would come to harm as a consequence of being barefoot.

Yes, and people have said oooh I am surprised that you've got her barefoot because, you know, she's a proper horse and I do dressage with her and I had someone who was jumping her and doing a bit of eventing with her and so people do seem to think... in my opinion anyway that it's only little ponies that go barefoot erm, and not big horses. [HO2, L229-233]

Yeah. It was interesting because I thought everybody thought I was bonkers when I took [horse name's] shoes off.... And that I was losing my marbles fairly rapidly. [HO3, L86-89]

They saw me as a bit wacky with my hoof boots... [HO1, L172-174]

Again, I think they think I am probably some kind of nutcase, you know, like a kind of 'What on earth is she feeding her horses that for?'. [HO1, L287-288]

I think the perception was that the horse wouldn't cope with the work and that her feet would literally fall apart, I think that was what people were concerned about. [HO3, L108-109]

Family members

Horse owners had had to cope with negativity from members of their close social circle. One interviewed horse owner highlighted that the issues for her had been two-fold, namely her husband's lack of understanding and the feeling of guilt she had had as a consequence of the cost associated with employing a trimmer.

So... that's my hobby and it's a case of... and again, my husband, he's not horsey in the slightest and he says, 'Why have you got him if you can't ride him, why don't you put shoes on him?'. [HO1, L406-408]

...and her perception was that boots were a nonsense and really difficult to use and a real faff and they just fall off all the time so I think also there was this perception that hoof boots couldn't possibly work either, how could you possibly create something that would stay on a horses foot when you were cantering and be comfortable and sensible for the horse? [HO3, L112-116]

Horse owner questionnaire respondents were asked to indicate the extent to which they agreed or disagreed that some people made negative judgments about those who kept horses barefoot. Overall, nearly four-fifths of horse owner questionnaire respondents strongly agreed or agreed that with this statement (78.4%, 534/681). Differences between horse owner typology groups were not statistically significantly different (χ^2 [8, 679]=11.830, p=0.158). Detailed results about the extent to which horse owner questionnaire respondents considered that some people make negative judgements about those who keep horses barefoot are provided in Figure 8.5.

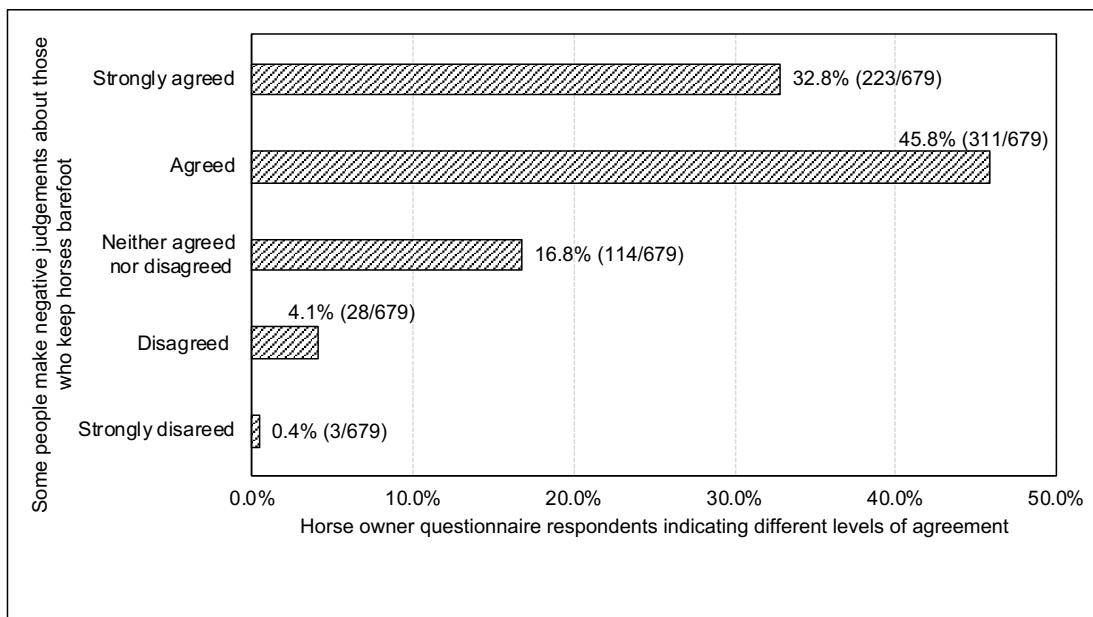


Figure 8.5 Proportions of horse owner questionnaire respondents indicating different levels of agreement with the view that some people make negative judgements about people who keep horses barefoot (n=679)

8.4 Summary

Often many factors combined to influence owners to decide to keep their horse barefoot. Some owners had decided to keep their horse barefoot to resolve a farriery- or horse health-related issue. However, for most, there was no particular issue to resolve and, instead, they were motivated by perceived benefits which they had learnt about from having seen other horses being successfully kept barefoot. The benefits of keeping a horse barefoot were believed to include improvements not only to the horses' feet but also to the horse's wider physical and mental health. In addition, owners also reported feelings of personal satisfaction. However, there were drawbacks, and these included the financial cost (although some considered the approach was cheaper than keeping a horse shod), the time it took to deliver barefoot care (although not everyone considered it took more time), having to limit the amount they rode their horse (at least for a while) and the negative attitudes of others.

9 Delivering barefoot care: horse owners' perspective

9.1 Overview

Data presented in Chapters 6 and 7 demonstrated the elements of barefoot care that were important to the trimmers who participated in my research. The extent to which these beliefs and practices are shared by the horse owners who participated in my research are explored in this Chapter using data from the horse owner interviews (n=5) and responses from the horse owner questionnaire (n=681). Horse owner questionnaire results are presented for all questionnaire respondents and, when there are statistically significant differences, for the three horse owner typology groups (committed barefooters: n=233; new barefooters: n=290; intermittent barefooters: n=168). It should be noted that not all questionnaire respondents provided responses to all questions. Barefoot horse owners' views and experiences relating to trimmers are explored in Section 9.2 and implementing the balance management cycle is described in Section 9.3. Horse owners' thoughts about whether they would ever shoe their barefoot horse are presented in Section 9.4.

9.2 Horse owner views and experiences relating to trimmers

Interviewed horse owners expressed the view that the trimmer was essential to the process of successfully keeping a horse barefoot. Specific attributes that were highlighted were their trimmer's attitude, their knowledge (about horses' feet and wider [holistic] care) and their support.

You need to find the right trimmer, who is going to give you the information you need and be kind of realistic and sensible about stuff...
[HO3, L187-188]

I would say basically you would have to get a good trimmer on board, they are just... you know... they... they are the pinnacle to have really... to have somebody on board who knows what they are doing. [...] But the main thing is to get the support from a good trimmer. [HO1, L363-375]

... [Trimmer name] will come down and she will trim the, and we have got students down there and she is such a knowledgeable lady that the students will go and ask her trim and ask questions, she will explain what she is doing really really clearly... [HO3, L273-276]

...and I tend to ask about all sorts of things, just because her nutrition knowledge is so good, that she will sometimes come up with something that is a bit different to other people I have asked and I can then go away and research and see whether it's worth a shot with the ponies that we are having trouble with... [HO3, L291-294]

Horse owner questionnaire respondents were asked to indicate the extent to which they agreed that who trimmed their horse's feet was critical to keeping their barefoot horse comfortable. Results, which did not differ by horse owner typology group (χ^2 [8, 679]=8.142, $p=0.420$), showed that over four-fifths (87.2%, 594/681) of horse owner questionnaire respondents strongly agreed or agreed with this statement. Detailed results about the extent to which horse owner questionnaire respondents considered that who trimmed their horse's feet was critical to keeping their barefoot horse comfortable are provided in Figure 9.1.

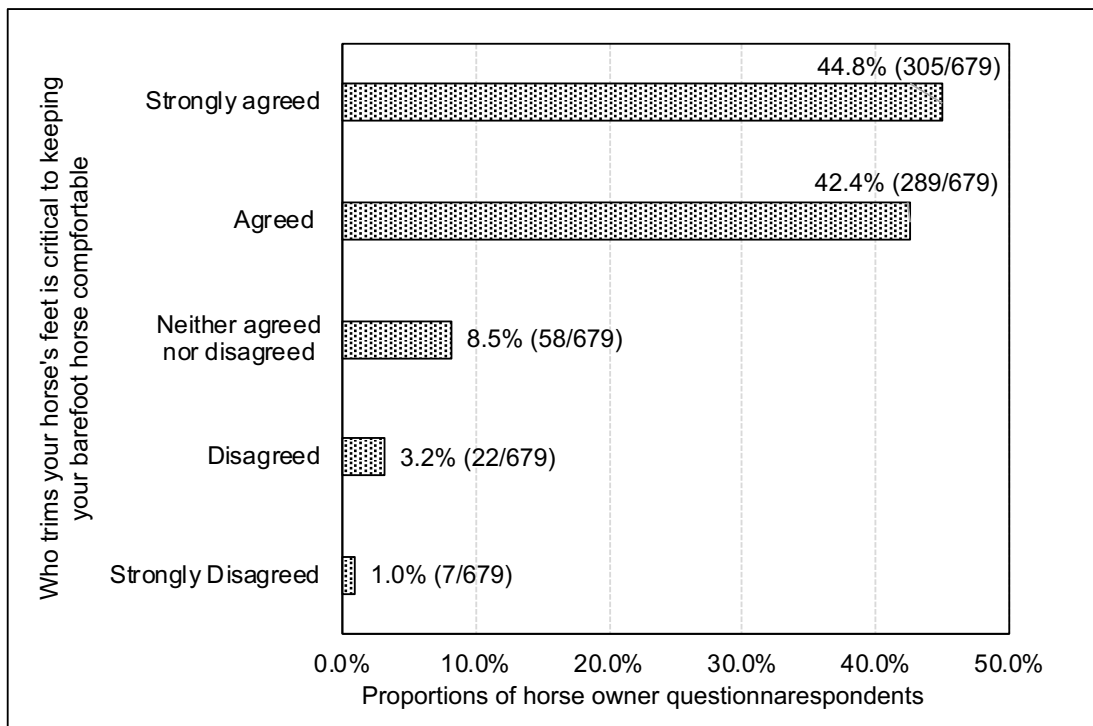


Figure 9.1 The extent to which horse owner questionnaire respondents considered that who trimmed their horse's feet was critical to keeping their barefoot horse comfortable (n=679)

9.2.1 Horse owners' trimmer selection processes

Data presented in Section 7.2.2.1 showed that to protect their reputations, trimmers were selective about who they took on as clients and, therefore, assessed the suitability of potential clients. The data collected from horse owners showed that they were selective about who they employed to trim their horses' feet and that some even used an assessment process.

Asked multiple people, saw examples of his work, researched his work.

[QR_HO194]

I asked fellow professionals for opinions then interviewed prospective candidates. [QR_HO500]

Data collected during the horse owner interviews suggested that finding a suitable person to trim their horse's feet was not always a straightforward process. All interviewed owners started by employing a farrier and had explored various different equine foot care provider options before employing their current trimmer (or before deciding to trim their own horse's feet). The journeys interviewed owners took to find their current equine foot care provider are illustrated in Figure 9.2. Only one of the interviewed horse owners had been happy with the first trimmer she identified. Another interviewed horse owner had spent a period trimming her own horses' hooves because she had been unable to find a suitable trimmer/farrier and another was currently in that same situation.

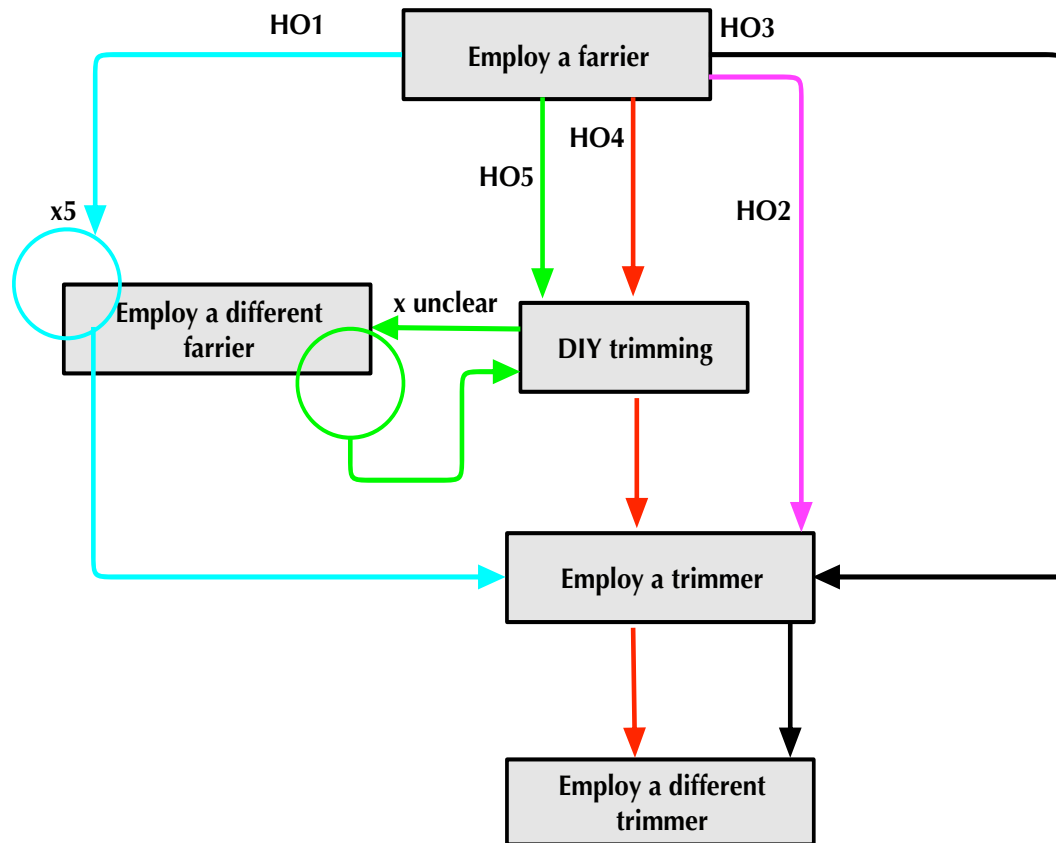


Figure 9.2 Pathways taken by interviewed horse owners to find a suitable (or their current) trimmer (n=5)

Horse owner questionnaire respondents were asked whether they had found the trimmer they currently employed by asking a friend, responding to an advertisement in a shop, via an Internet forum or Facebook page, via a trimmer's website, or by some other means. In terms of the specified methods used to find a trimmer, the differences between horse owner typology groups were statistically significant ($\chi^2 [8, 681]=13.693, p=0.033$). Just under half (48.1%, 331/681) of the respondents indicated that they had used one of the specified methods to find their current trimmer. Overall, just under a third (29.1%, 198/681) of respondents had asked a friend whilst approximately a tenth (11.9%, 81/681) had found their trimmer via an Internet forum or Facebook, and a further tenth (7.3%, 50/681) had found their trimmer via a trimmer website. Detailed results showing how horse owners found the trimmer that they employed at the time of completing the horse owner questionnaire are provided in Figure 9.3.

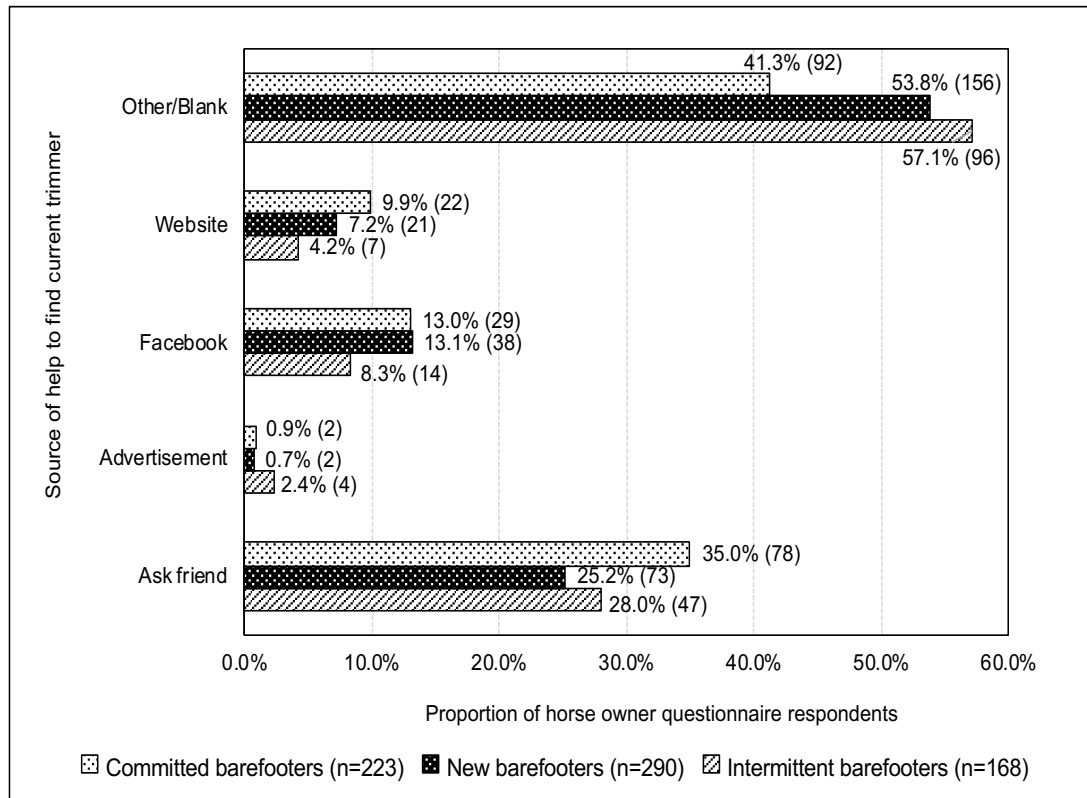


Figure 9.3 Sources of advice horse owner questionnaire respondents used to find their current trimmer (n=681)

Approximately one third (33.5%, 228/681) of respondents provided information in a free-text box about the other sources that they had used to find their current trimmer. These questionnaire respondents held a range of different types of connection with the individuals from whom they had sought a recommendation; namely, somebody to whom the horse owner provided services (a client), somebody who provided services to the owner (their previous trimmer or farrier, their veterinary surgeon, their trainer, their coach), and a casual acquaintance (a person met on a course, a person met on a fun ride).

Horse owner questionnaire respondents were asked to rate the service provided by their trimmer on a scale of one to ten, where ten was the most positive. Results did not differ statistically significantly between horse owner typology groups ($\chi^2 [6, 579]=9.429, p=0.151$). Nearly, two-thirds of respondents assigned a rating of ten to the services provided by their trimmer (63.2%, 366/579). Most of the remaining respondents assigned ratings of nine (14.7%, 85/579) or eight (13.1%, 76/579) and less than a tenth (9.0%, 52/579) of respondents assigned a lower rating.

Reasons specified by horse owner interviewees for valuing their trimmer included improved foot functionality results and specific elements of the service provided by their trimmer, including the trimmer's horse handling expertise.

...and I look at the improvement in 6 months with what [trimmer name's] done... [HO1, L366-367]

... and then she will write me her notes so that I have got instructions and a record of what we have done and all of this sort of thing, which is fantastic. [HO3, L296-298]

Because she does it every time in the same place and does that... I think she does that routinely with all the horses she sees. I knew... I've tried to do it and I am never very successful with it, but erm... I felt that she was a bit more experienced than me and it was... she was doing the right thing. [HO2, L109-112]

For the first time [trimmer name] did her feet on Monday, last Monday and she actually let [trimmer name] do all her feet. ...Yes, she was frightened of the world. ...And I think picking feet up was just one of the things that she was too frightened of, but I mean, [trimmer name's] fantastic. [HO4, L166-172]

Overall, less than a tenth (8.4%, 57/681) of horse owner questionnaire respondents believed that a trimmer would be better at trimming the feet of barefoot horses than a farrier (and gave this as one of the reasons they decided to keep their questionnaire horse barefoot). However, opinions between horse owner typology groups about whether a trimmer would be better at trimming barefoot horses than a farrier differed statistically significantly (χ^2 [1, 681]=15.366, $p<0.000$). The proportions of committed and new barefooters who held this view were similar (committed barefooters: 9.9%, 22/223; new barefooters: 11.4%, 33/290) but virtually no intermittent barefooters held this view (intermittent barefooters: 1.2%, 2/168). Whilst some intermittent barefooters who responded to the questionnaire indicated that they employed a farrier to shoe their horse(s) and a trimmer to attend to the feet of their barefoot horse(s), it has not been possible to quantify this practice.

Type of yard

Trimmers expressed concerns about taking on horses that were stabled at a livery yard (see Section 7.2.2.1). They explained that this tended to restrict the types of husbandry changes that owners were able to make. Horse owner questionnaire respondents were asked to provide details about where their questionnaire horse was kept. The pre-specified options were their own premises, private rented premises, a do it yourself (DIY) yard and a full livery yard. Respondents were able to select combinations of these types of premises. In addition, a free-text box was provided to allow respondents to provide details of other types of premises where their questionnaire horse was kept. In terms of where questionnaire respondents' questionnaire horses were kept, differences between horse owner typology groups were not statistically significant ($\chi^2 [14, 528]=19.478, p<0.147$).

Just over two-fifths of questionnaire respondents (22.5%, 153/681) did not answer this question. However, an analysis of the available responses showed that approximately two-fifths (42.6%, 225/528) kept their questionnaire horse at private premises (either their own or private rented premises, or a combination of these two types of premises) and approximately one third (34.1%, 180/528) kept their questionnaire horse on a DIY livery yard. A further tenth (11.9%, 63/528) of respondents kept their questionnaire horse partly at their own premises and partly on a DIY livery yard. This suggests that keeping a horse on a DIY livery yard is not necessarily a barrier to keeping a horse barefoot. Approximately one twentieth (5.5%, 29/681) of respondents kept their questionnaire horse on a yard that provided a full livery service, and a very small proportion (1.9%, 10/528) kept their questionnaire horse partly on a yard providing full livery and partly at their own premises. Other types of premises (4.0%, 21/528) where respondents' questionnaire horses were kept included at a friend's or relative's premises and as a working livery. Whilst horse owners may have the freedom to make care and exercise changes if they own (or privately rent) their own premises, they may have less control if their horse is kept at a friend's or relative's premises. Full details of the type of premises where respondents' questionnaire horses were kept are provided in Figure 9.4.

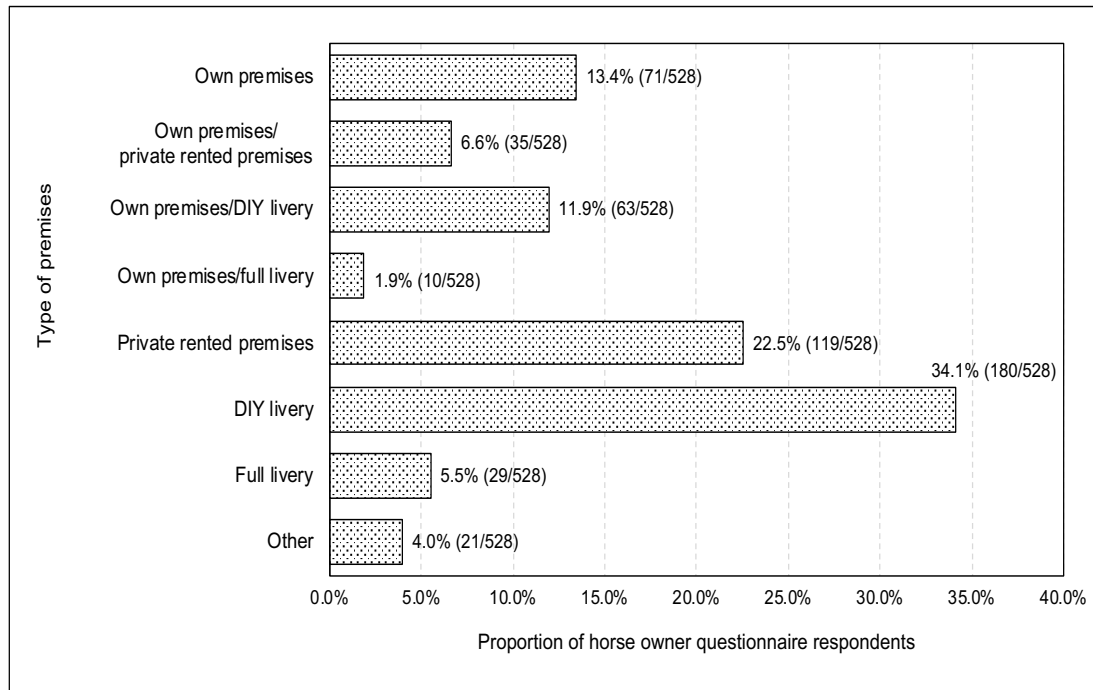


Figure 9.4 Type of premises where horse owner questionnaire respondents' questionnaire horses were kept (n=528)

9.2.2 Details about the people who trimmed horse owner questionnaire respondents' horses' feet

Results from the horse owner questionnaire (provided in a free-text box) showed that some horse owners relied on family members (including a spouse, a parent, an aunt and a daughter) to trim their horse's feet. Other owners simply used the services of a farrier who was readily available.

Only local one we have. [QR_HO197]

Been our yard farrier for years. [QR_HO281]

My current farrier was apprenticed to my old farrier who retired, and my current farrier took over the clients. [QR_HO283]

Questionnaire respondents were asked to indicate the frequency with which they trimmed their own horse's feet (always, sometimes or never). The reported frequencies for these intervals did not differ statistically significantly by horse owner typology group ($\chi^2 [4, 681]=1.609, p=0.807$). Approximately half of the respondents (54.2%, 369/681) never trimmed their horses' feet, a third (31.6%, 215/681) sometimes trimmed their horse's feet, and the remainder (14.2%, 97/681) stated that they were the only people to trim their horses' feet. It is not known how many horse owner questionnaire respondents ran trimming businesses. Nor are trimmers' views

on horse owners carrying out work on their horses' feet known. However, collected data showed that owners' involvement in foot care (which may include using a rasp) was not an issue for at least some trimmers.

...offers guidance as to maintenance between trims. [QR_HO36]

...[He] even gave me an old rasp so I could deal with any issues to prevent cracks appearing. [QR_HO287]

... she shows us how to maintain between trims. [QR_HO543]

Overall, of the group of part-time owner/trimmers, approximately two-thirds employed a trimmer (68.4%, 147/215) and the remaining third (31.6%, 68/215) employed a farrier. Further analysis showed that there were no statistically significant differences between horse owner typology groups (χ^2 [2, 215]=38.073, $p<0.000$) in terms of whether horse owners who sometimes trimmed their own horses' feet employed a trimmer or a farrier.

The horse owner questionnaire included a question that sought information about the qualifications that owners believed were held by the person who trimmed their horse's feet. The responses suggested that many horse owners were not confident about the qualifications that their trimmer held. Just over two-fifths (44.3%, 259/584) of those who responded to this question indicated that they did not know the qualification(s) held by their trimmer or indicated that their trimmer held very unlikely or impossible combinations of qualifications. An example of respondent providing an impossible combination of qualifications was the respondent who ticked the box that indicated that their trimmer held no qualifications and also ticked the box that indicated that their trimmer held a qualification awarded by the WCF. An example of an unlikely combination of qualifications was provided by the respondent who indicated that their trimmer held qualifications awarded by all eight of the listed qualification awarding organisations.

Whilst confidence in the results is limited by uncertainty about the extent that horse owner questionnaire respondents had been able to provide reliable information about the qualifications held by their trimmer, an analysis was undertaken to compare the proportions of horse owner questionnaire respondents who indicated that they employed a farrier (who may not necessarily have qualified in the UK), with those who employed people with other (or no farriery qualifications). Overall, results showed that one third of respondents employed a farrier (37.3%, 247/663) and the remainder

employed a trimmer. Results, however, differed statistically significantly between horse owner typology groups (χ^2 [4, 668]=30.299, $p<0.000$). Whilst approximately two-thirds of committed and new barefooters employed trimmers (in line with the overall result), the balance was reversed amongst the intermittent barefooters. Details about the proportions of horse owner questionnaire respondents who employed trimmers and farriers are provided in Figure 9.5.

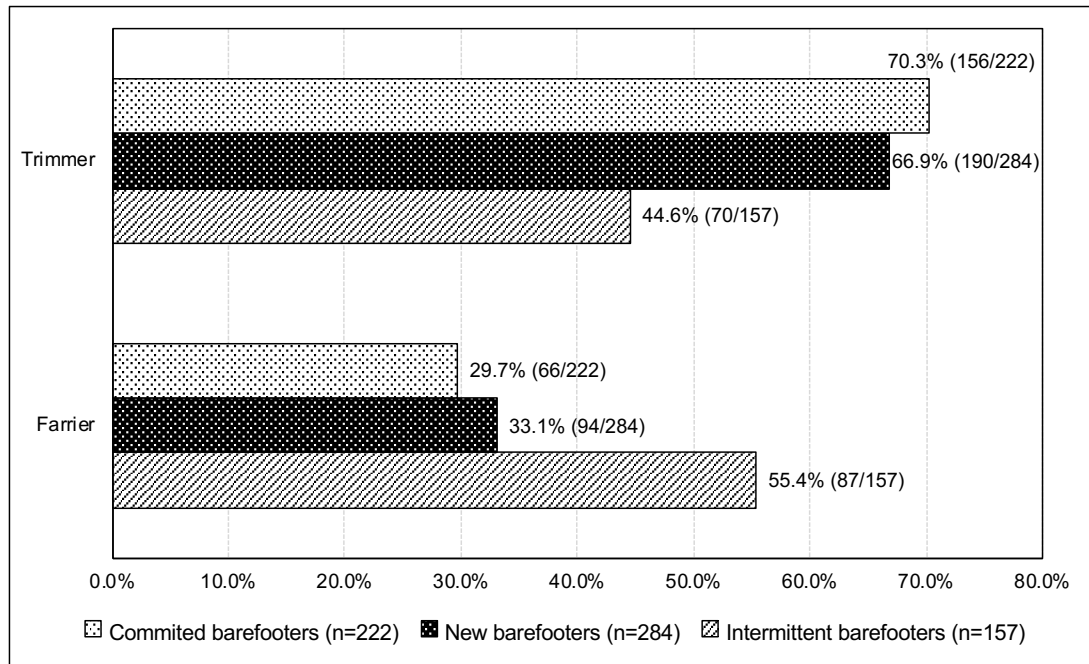


Figure 9.5 Proportions of horse owner questionnaire respondents who employed trimmers and farriers (n=663)

9.2.3 Trimming appointments

Interval between appointments

There were statistically significant differences between horse owner typology groups in terms of the intervals between trimming appointments (χ^2 [12, 681]=28.016, $p=0.006$). Most horse owner questionnaire respondents reported that their horses' hooves were trimmed regularly. However, compared with the other two groups, committed barefooters were most likely to have their horse's hooves trimmed less frequently than every 12 weeks or at no set period. The modal period between trims reported by committed and new barefooters was every 5 to 6 weeks, whilst the modal period reported by intermittent barefooters was every 7 to 8 weeks. However, the proportion of committed barefooters who reported an interval of every 7 to 8 weeks was only slightly lower than the proportion who reported an interval of every 5 to 6 weeks. Further details about the frequency that their questionnaire horse's feet were trimmed are provided in Figure 9.6.

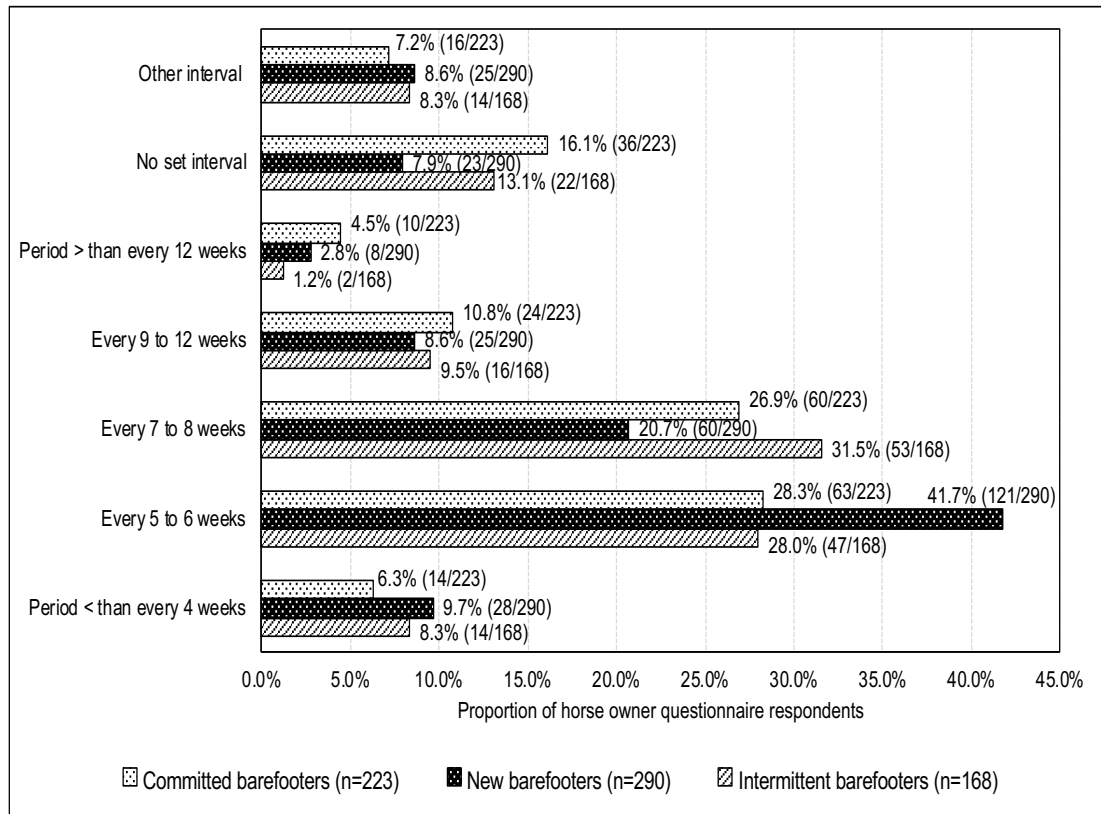


Figure 9.6 The frequency with which horse owner questionnaire respondents had their barefoot horse's feet trimmed (n=681)

Owner present during trimmer appointment

In terms of whether the owner was present whilst their horse's hooves were being trimmed did not differ statistically significantly by horse owner typology group ($\chi^2 [6, 581]=11.624, p=0.091$). Overall, over nine-tenths of respondents (96.4%, 560/581) reported that they were always or generally present during trimmer appointments. This is in line with trimmer questionnaire responses that indicated that all their clients either always or often took an interest in what they were doing during an appointment (see Section 7.2.2.4).

Length of a trimmer appointment

Trimmer questionnaire data showed that there was considerable variation in the length of trimming appointments (estimates ranged from 15 to 120 minutes). Further details about trimmers' estimated appointment lengths can be found in Section 4.2.3.6. Results from the horse owner survey were broadly in line with results from the trimmer survey in that they showed that there was considerable variation in the duration of appointments (range: 2 to 190 minutes, the minimum and maximum durations were provided by committed barefooters). The modal time (30 minutes) was consistent across all three horse owner typology groups and is slightly lower than the mean length of time trimmers estimated that it took them to carry out a maintenance appointment (43 minutes), their shortest appointment type.

A comparison between the lengths of trimmer and farrier appointments showed that the mean length of trimmer appointments was longer than the mean length of farrier appointments (36 minutes and 22 minutes respectively). Only a quarter of trimmer appointments (26.8%, 113/421) were estimated to last less than 30 minutes. In contrast, nearly all farrier appointments (91.2%, 237/260) were estimated to last less than 30 minutes.

Reports provided by trimmers

Trimmers highlighted that they kept copies of the plans as a record of what had been done in the past (which allowed progress to be monitored and helped [if necessary] to safeguard reputation), to inform the development of the next Plan and to facilitate self-assessment (see Section 7.3.2.3). One of the interviewed horse owners indicated that she greatly appreciated the reports she received from her trimmer. Information about reports was not collected specifically as part of the horse owner questionnaire. However, as highlighted in Section 9.2.1, the knowledge and support provided by trimmers were highly valued.

...she will write me her notes so that I have got instructions and a record of what we have done and all of this sort of thing, which is fantastic. [HO3, L296-298]

9.3 *Implementing the balance management cycle*

As explained in Section 6.5, whilst the 'Do' element of the balance management cycle involved both the trimmer and the horse owner, it was largely carried out by the horse owner as part of the process of delivering day-to-day care.

During the interviews with trimmers, it became apparent that they considered that, to effectively deliver hoof-centred care, owners needed to pay constant attention to detail to all the factors that affected horses' feet (see Section 5.3.1.3). Horse owner questionnaire respondents were asked to indicate the extent to which they agreed that barefoot horse owners needed a high degree of attention to detail to enable them to keep their horse barefoot. Respondents' views varied statistically significantly by horse owner typology group (χ^2 [8, 679]=340.595, $p=0.012$). Overall, just under a quarter of respondents omitted to offer an opinion (23.2%, 158/681). However, results from the analysis of available responses showed that just under two-thirds of new barefooters supported this view (strongly agreed or agreed) compared with just under half of committed and intermittent barefooters. The higher support for the view that attention to detail was needed may reflect the fact that keeping a horse barefoot was a (relatively) novel approach for the new barefooters. Full details of the proportions of horse owner questionnaire respondents indicating different levels of agreement with the view that horse owners need a high degree of attention to detail to enable them to keep their horse barefoot are provided in Figure 9.7.

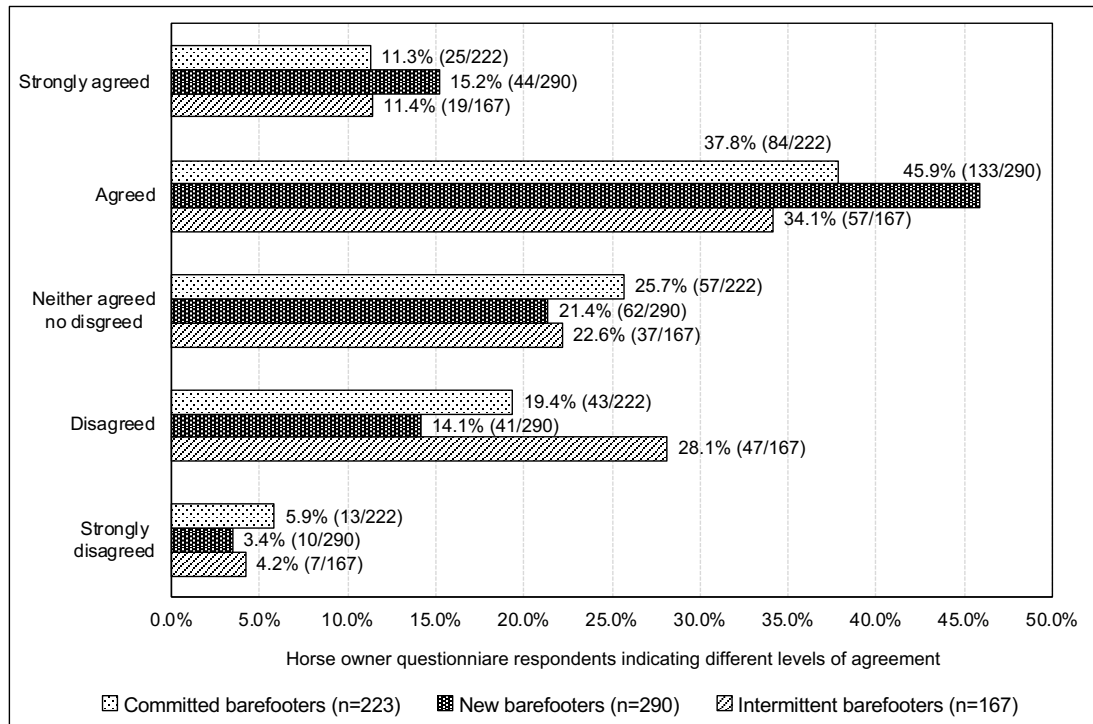


Figure 9.7 Proportions of horse owner questionnaire respondents indicating different levels of agreement with the view that horse owners need a high degree of attention to detail to enable them to keep their horse barefoot (n=681)

9.3.1 Diet

The horse's diet was one of the factors that trimmers assessed during each appointment (see Section 6.3.2.2).

Interviewed horse owners highlighted that on changing to keep their horse barefoot they had made changes to their horse's diet. One interviewee now purchased different types of products from a different company and another had introduced a balancer (a low-intake, concentrated source of essential protein, vitamins and minerals). A third interviewee, on first moving to keep her horse barefoot, had tested a range of different food additives, however, on employing a trimmer she had changed to feeding a branded product that had been recommended by that trimmer.

...and I totally changed her diet as well [...] Before I fed her erm... I fed her a molasses chop mixed with Top Spec conditioner... no, Top Spec feed balancer. [...] Now she has Thunderbrook base mix and Thunderbrook chop and she has copra as well. [HO2, L93-97]

I think the biggest change was that all of the ponies went on to a nutritional balancer to make sure that, okay they were getting hay and grass and a bit of straw, for some of the fat ponies – because we have

got lots of fat ponies...but that they were now getting something to make sure that they were getting all the vitamins and minerals that they needed, even if they were on quite strict rations of grass and hay and stuff. [HO3, L126-131]

...at the time their feeds were like a science experiment. They had a bit of this and a bit of that, a bit of magnesium and seaweed, brewers' yeast – all these things that I was told that would be really, really good for one thing and another ...it was like... it took me half an hour to mix a feed, it was ridiculous. [...] but basically, I have changed his feed, which she recommended, on to erm... a company called Thunderbrook, which is all completely natural stuff. [HO1, L156-284]

Responses from the horse owner questionnaire showed that horse owners fed a very wide range of branded foodstuffs. It was not possible to carry out an in-depth analysis of this information due to the hundreds of permutations (and confusion amongst horse owners) between brand names and product names. However, results showed that owners fed products that were sold by more than 35 different companies.

In terms of general diet formulation principles, approximately 90% of trimmer questionnaire respondents considered that a horse's diet should contain no or a low level of sugar and approximately 80% considered that a horse's diet should contain no or a low level of grain (see Section 6.3.2.2). However, not all horse owner questionnaire respondents adhered to these principles; horse owner questionnaire data showed that some horse owners were feeding products containing high levels of sugar (for example, molassed chaff) and grain (for example, crushed oats).

The numbers of feed supplements fed by horse owner questionnaire respondents did not differ statistically significantly by owner typology group (χ^2 [12, 681]=15.401, $p=0.220$). The most frequently cited number of supplements was two (21.6%, 147/681). The maximum numbers of supplements that were fed by committed, new and intermittent barefooters were 13, 20 and 22 respectively. Summary details about the number of supplements that barefoot horse owners fed to their horse are provided in Figure 9.8.

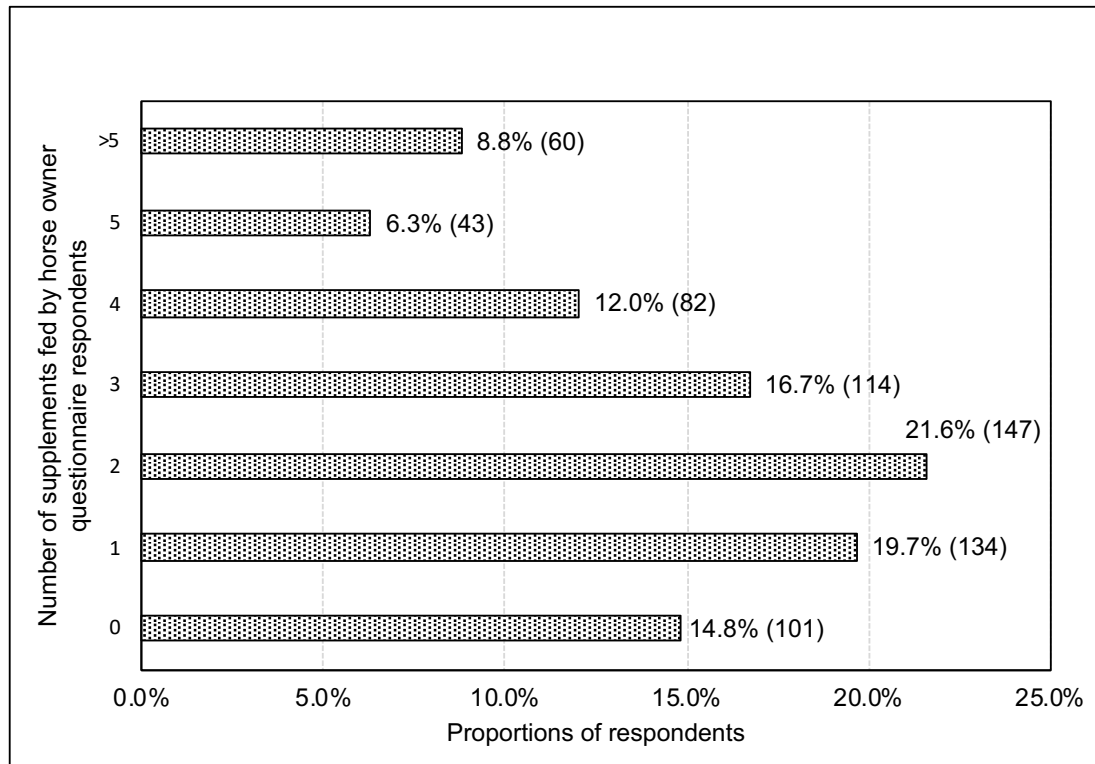


Figure 9.8 Number of supplements fed by horse owner questionnaire respondents to their horse (n=681)

9.3.2 Movement

Exercise/movement was one of the factors that trimmers assessed during each appointment (see Section 6.3.2.3).

9.3.2.1 Structured exercise

The exercise-related protocols that trimmers suggested interviewed owners should employ to improve the functionality of their horses' feet included exercising in an arena, pad-walking and use of boots (at least in some situations). The information provided by interviewed horse owners showed that implementing these protocols could require commitment and sometimes practical difficulties needed to be overcome.

I need to make sure that she goes in the school erm... ideally two or three times a week, which I did do. [HO2, L151-153]

...she gave me pads that I put on and I had to keep on her feet and had to walk her for 20 minutes every day... I just walked her up and down, up and down the footpath for 20 minutes every day in these shoes and I did it every single day. [HO2, L82-87]

He's not great at walking in hand, he tends to get a bit... he's better under saddle, he gets a bit excitable walking out in hand. So, basically, I put pads in his boots. [HO1, L307-309]

Hoof boots

Approximately half of the horse owner questionnaire respondents' horses had, at some point past or present, worn hoof boots. There was a statistically significant difference between the three horse owner typology groups in terms of having ever used hoof boots (χ^2 [2, 681]=32.176, $p<0.000$), with a higher proportion of new barefooters' horses having used boots compared with proportions of the horses belonging to members of the other two horse owner typology groups. There was also a statistically significant difference between horse owner typology groups (χ^2 [2, 364]=40.157, $p=0.034$) in terms of the current hoof boot usage, although only about half of the questionnaire respondents responded to this question (53.5%, 364/681). In line with the responses to the question about whether their horse had ever worn boots, compared with the other two groups, a higher proportion of new barefooters indicated that their horse currently wore boots. Further details about the use of hoof boots are provided in Figure 9.9.

The reason behind the higher use of hoof boots amongst the new barefooters group could be due to these horses having been, or currently being in, the transition period (i.e., the period between shoes being removed and the horse being comfortable barefoot) and that more of the horses belonging to the committed and intermittent barefooters being already comfortable barefoot (the committed barefooters' horses had, by definition, always been barefoot).

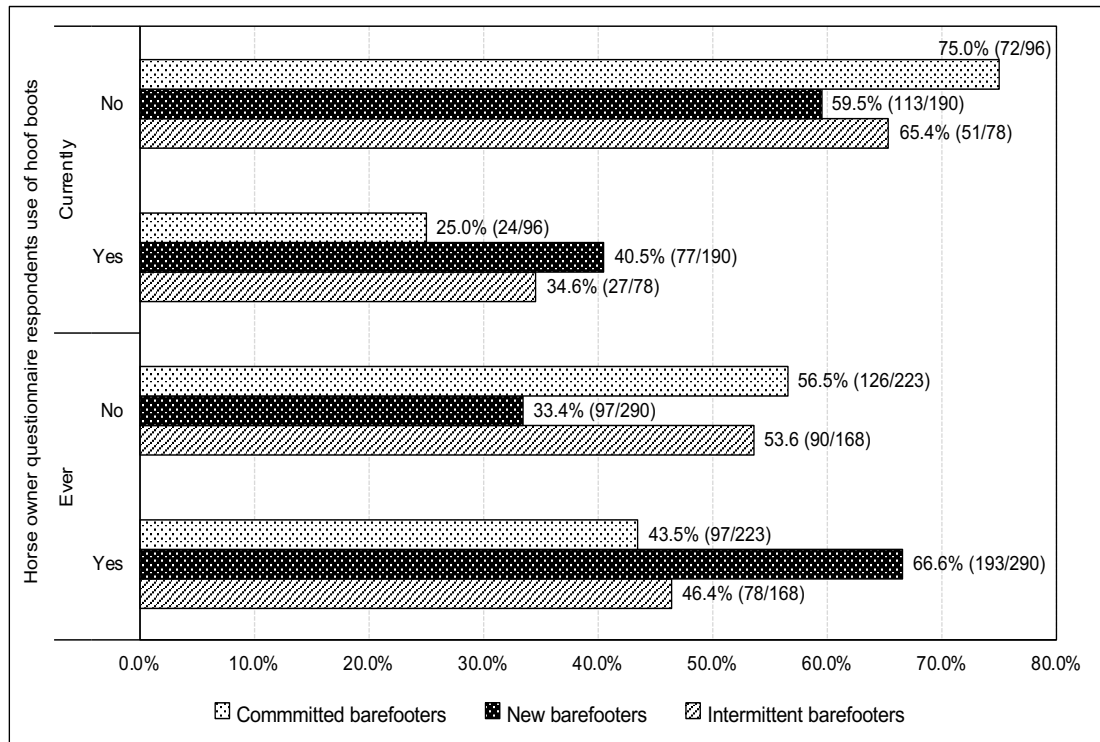


Figure 9.9 Proportions of horse owner questionnaire respondents who indicated whether their horse had ever worn, or currently wore hoof boots (n=681 and n=364 respectively)

Interviewed horse owners highlighted that fitting and using hoof boots could be associated with problems. Difficulties that interviewed horse owners had encountered were the shape of their horse's feet not matching the shape of the hoof boots and the fact that, during the interval between trims, their horse's feet grew. One owner linked the mismatch between the shape of her horse's feet and the design of the boots as the cause for it being difficult to put the hoof boots on. Hoof boots not staying on was also identified as an issue but whether this was due to a poor fit or poor hoof boot design is not known.

...she was quite difficult to boot because she had much wider feet and they were long. [HO3, L317-318]

It was more the shape as he has very round feet. ..Erm... and eventually we found ones that were the right shape. [HO4, L201]

...his feet kind of obviously do grow erm... [Trimmer name] comes every 5/6 weeks so I was finding that his [Brand name boots] the size 3s were getting a little bit small for him when it got to 5/6 weeks. Whereas the size 4s are too big anyway... [HO1, L345-348]

...I got some hoof boots for him, but they were a nightmare to put on these boots because his feet were so much wider than they were long, and these boots won't cater for that shape of the foot. [HO1, L166-169]

I mean with some horse, for instance, the pony right, keep them on no problem. I don't think a boot has ever come off with him at all... [HO5, L523-525]

...you just lost them, I mean they just fell off...erm...particularly in the fact that we are going in rough country And the other thing that we found was the [Brand identity] boot there was actually bruising, okay...in the coronary band. [HO5, L158-159]

Horse owner questionnaire respondents who had experience of using hoof boots were asked to indicate whether they agreed with a series of statements about boots. Just over four-fifths (87.0%, 320/368) of those who had used boots expressed an opinion about them. There were no statistically significant differences by horse owner typology groups in terms of responses to this set of questions ($\chi^2 [2, 368]=0.626$, $p=0.731$). Nearly two-thirds (60.9%, 195/320) of those with experience of using hoof boots saw them as a temporary measure. Difficulties described by interviewed horse owners relating to fit (including struggling to put them on and keeping boots on) had been experienced by between about a fifth and third of horse owner questionnaire respondents. The problem relating to the size of hooves changing between trim had only affected just under a tenth of questionnaire respondents and even fewer had made modifications to boots to stop them rubbing. Details of horse owner questionnaire respondents' views about hoof boots are provided in Figure 9.10.

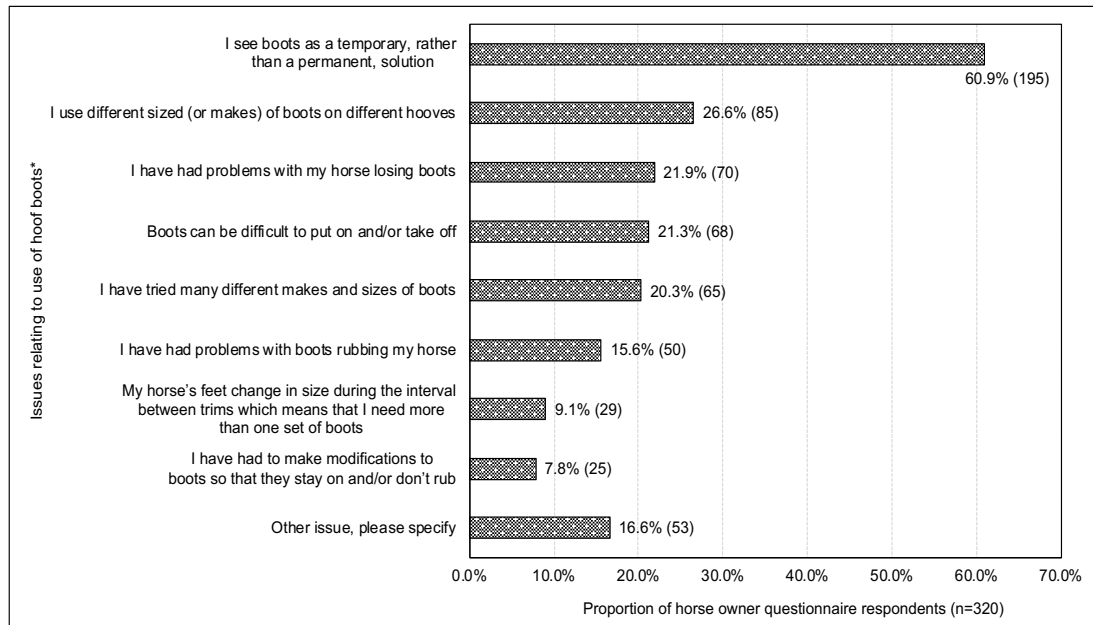


Figure 9.10 Proportions of horse owner questionnaire respondents who had experience of using hoof boots who agreed with each statement about hoof boots (n=320)

* Some horse owner questionnaire respondents indicated multiple issues

Workload

Interviewed horse owners (all new barefooters) highlighted that during the transition from shod to barefoot, the amount of work that their horse had been able to undertake had been restricted (one of the costs associated with changing from keeping a horse shod to barefoot [see Section 8.3.3]).

If you think [Horse name] probably...his feet now are just toughening up enough that he doesn't need boots at all, but that's taken a good year or so. [...] Probably 2 years really, since he really went back into proper decent hard work on roads again to really get to that point of being able to be like that... [HO4, L231-235]

Most horse owner questionnaire respondents considered that the level of work their horse was able to undertake was not restricted by being barefoot, which may indicate that most respondents' horses had completed the transition phase. Horse owner questionnaire respondents were asked to indicate whether they believed that the following activities were restricted as a consequence of their horse being barefoot: lunging, hacking, dressage, roadwork, jumping or riding on stony surfaces. In total, 40 respondents highlighted that none of these activities were applicable, and five respondents did not answer this question. It is not known whether those who highlighted that all these activities were not applicable undertook different activities or whether their horse was retired.

Overall, the proportions of respondents who considered that these activities were restricted due to their horse being barefoot were low. The activity that most people indicated had been affected was roadwork (13.6%, 80/587). When considering respondents for whom the activity was applicable, results did not differ statistically significantly by horse owner typology group (dressage: χ^2 [2, 455]=0.606, $p=0.739$; lunging: χ^2 [2, 573]=1.539, $p=0.463$; jumping: (χ^2 [2, 394]=5.169, $p=0.075$; hacking: χ^2 [2, 600]=3.160, $p=0.206$; roadwork: χ^2 [2, 587]=1.802, $p=0.406$). Further details about the proportions of horse owner questionnaire respondents who indicated that different types of activities were restricted by their horse being barefoot are provided in Figure 9.11.

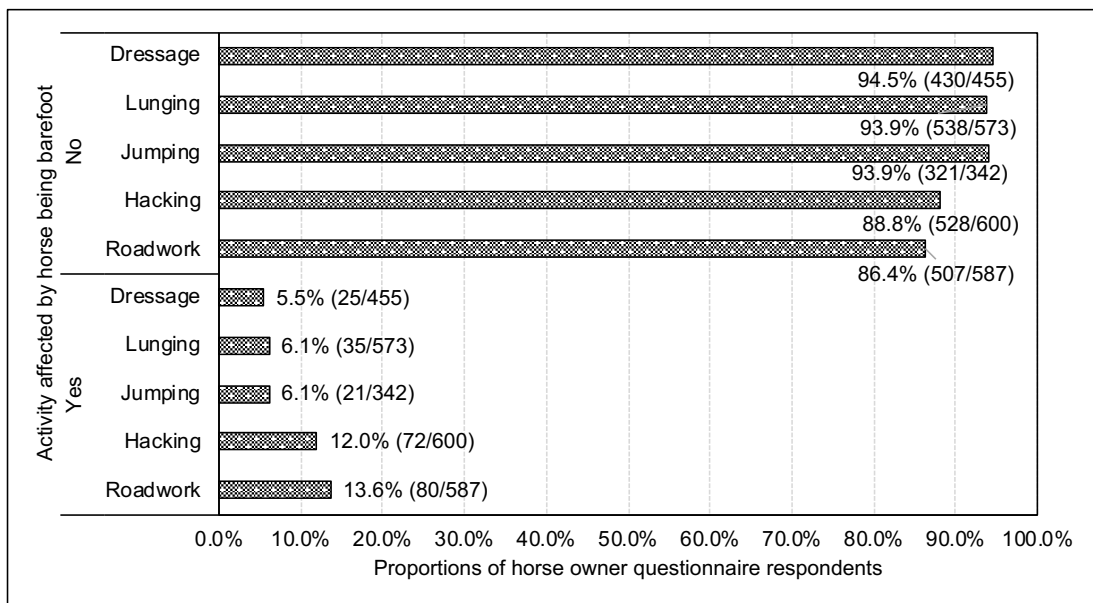


Figure 9.11 Proportions of horse owner questionnaire respondents who indicated that the amount of different types of work their horses could carry out were restricted by their horse being barefoot (n=676)

There was, however, a statistically significant difference (χ^2 [2, 590]=49.386, $p<0.000$) between horse owner typology groups in terms of whether questionnaire respondents considered that riding on stony surfaces was affected by their horse being barefoot. Approximately half of the intermittent barefooters considered riding on stony surfaces was restricted because their horse was barefoot, the proportion was lower amongst the new barefooters and even lower amongst the committed barefooters. Further details about the proportions of horse owner questionnaire respondents who indicated that riding on stony surfaces was restricted due to their horse being barefoot are provided in Figure 9.12.

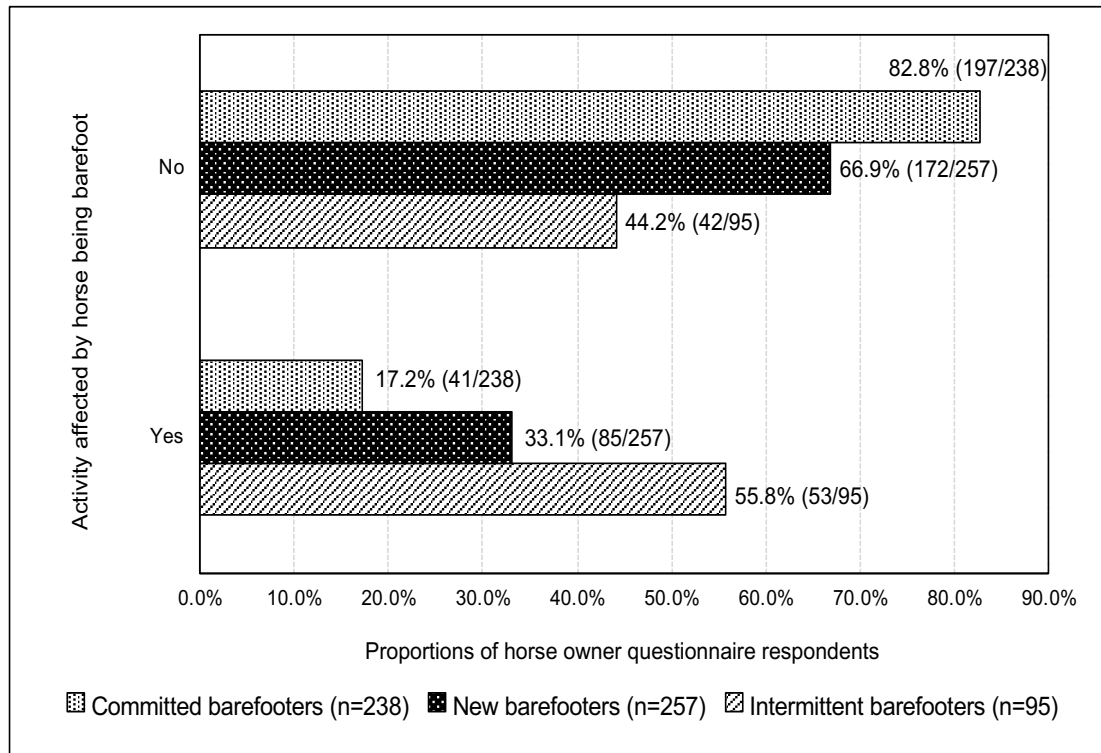


Figure 9.12 Proportions of horse owner questionnaire respondents who indicated that riding on stony surfaces was restricted due to their horse being barefoot (n=590)

Interviewed trimmers indicated that most of their clients kept their horses for leisure purposes, although they might compete in low-level competitions (see Section 5.3.1.2). Horse owner questionnaire respondents were asked what level of events (local, national or international) they had participated in with their questionnaire horse during the 12 months prior to completing the questionnaire. Approximately half (50.8%, 346/681) of the horse owner questionnaire respondents reported not having participated in any events (or did not complete the question). However, approximately two-fifths (41.9%, 285/681) of respondents reported that they had participated in local events and about a tenth (7.3%, 50/681) of respondents reported that they had participated in national or international events. There were, however, statistically significant differences (χ^2 [4, 681]=31.623, $p<0.000$) between horse owner typology groups in terms of the highest level of event that they had participated in (local, national/international or no events). Compared with the committed and new barefooters, a higher proportion of intermittent barefooters reported that they had participated in national and/or international events. Further details about the events that the horse owner questionnaire respondents had participated in during the 12 months prior to completing the questionnaire are provided in Figure 9.13.

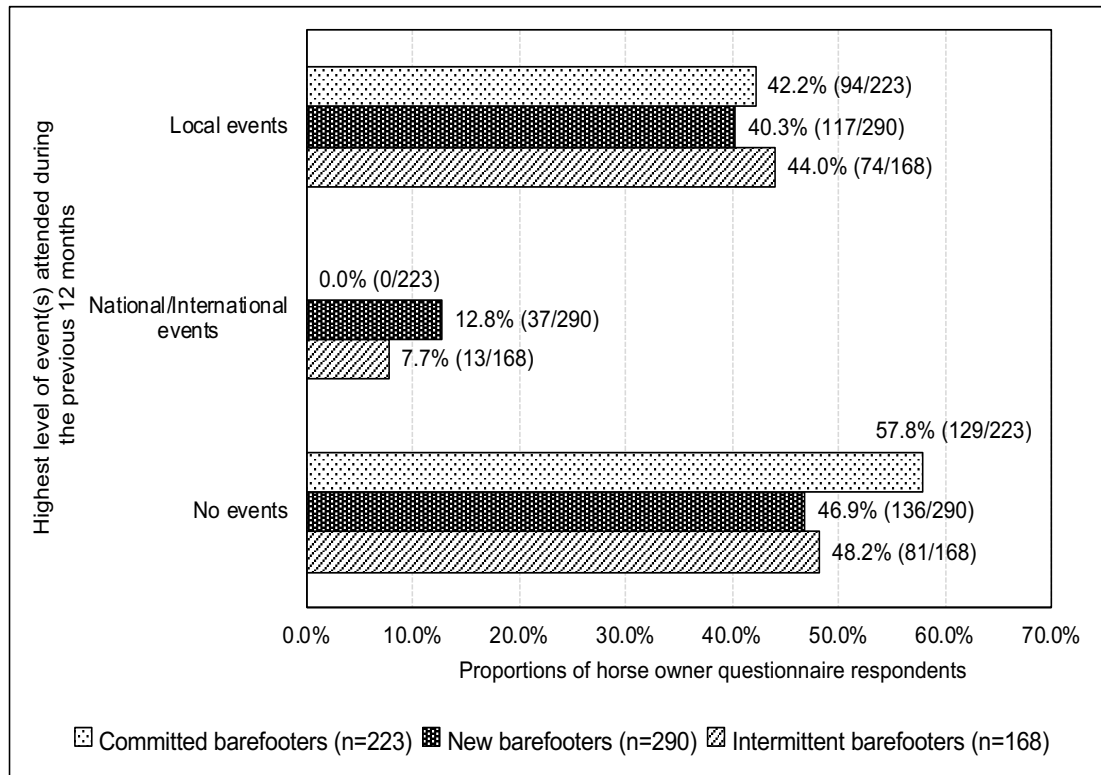


Figure 9.13 Proportions of horse owner questionnaire respondents who had participated in different levels of events with their questionnaire horse during the 12 months prior to completing the questionnaire (n=681)

In terms of types of events that horse owners had participated in, the differences between horse owner typology groups were not statistically significantly different, either for local events ($\chi^2 [2, 681]=0.612, p=0.736$) but were statistically significantly different in terms of national/international events ($\chi^2 [2, 681]=30.215, p<0.000$). No committed barefoot horse owners reported having participated in national/international events, whilst approximately a tenth of respondents in the new (12.8%, 37/290) and intermittent (7.7%, 13/168) barefooter groups had participated in this level of event. Some respondents indicated that they had participated in multiple types of events. Overall, the three types of local events that the highest proportions of respondents had participated in during the 12 months prior to completing the questionnaire were clinics (35.5%, 244/681), dressage events (26.6%, 181/681) and show jumping events (18.8%, 128/681), whilst the three most often cited national or international events were clinics (3.7%, 25/681), showing (2.9%, 20/681) and endurance competitions (2.8%, 19/681). Full details of the types of events that horse owner questionnaire respondents had participated in with their questionnaire horse during the 12 months prior to completing the questionnaire are provided in Figure 9.14.

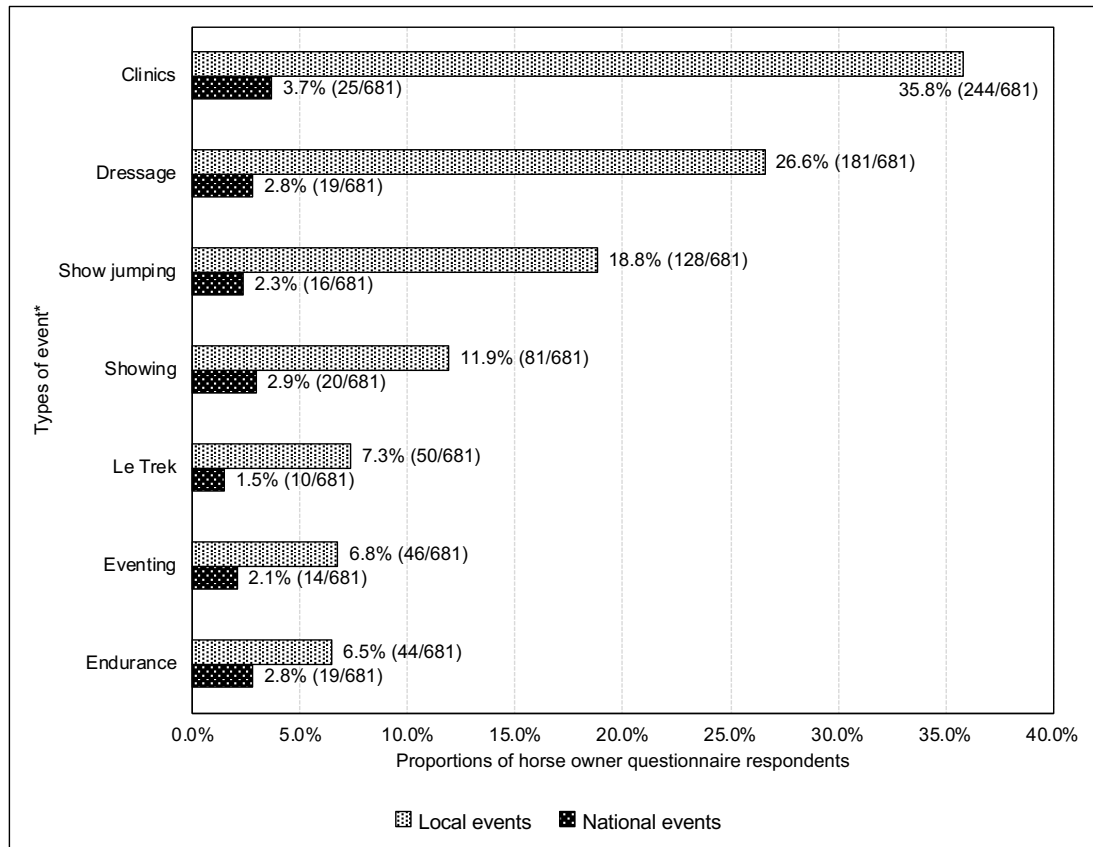


Figure 9.14 Types of events that horse owner questionnaire respondents had participated in with their questionnaire horse during the 12 months prior to completing the horse owner questionnaire (n=681)

* Some horse owner questionnaire respondents indicated that they had participated in multiple events

9.3.2.2 Turnout

Overall, just over half of the questionnaire horses were kept indoors for part of the time and outdoors for part of the time (55.4%, 377/681), whilst almost all of the remainder (44.1%, 300/681) were always kept outdoors. There were, however, statistically significant differences between horse owner typology groups (χ^2 [4, 681]=11.325, $p=0.023$) in terms of whether owners kept their questionnaire horse indoors, outdoors or both indoors and outdoors. Approximately half of the members of the committed and intermittent barefooter groups kept their horses always outdoors (committed barefooters: 51.1%, 114/223; intermittent barefooters: 45.8%, 77/168) and about half of the members of these groups horses lived both in and out of doors (committed barefooters: 48.4%, 108/223; intermittent barefooters: 54.2%, 91/168). In contrast, just over a third of new barefooters' horses were always kept outdoors (37.5%, 109/290) and almost all of the remainder were kept in and out of doors (61.4%, 178/290). Full details about whether questionnaire respondents' horses were kept indoors, outdoors or both indoors and outdoors are provided in Figure 9.15.

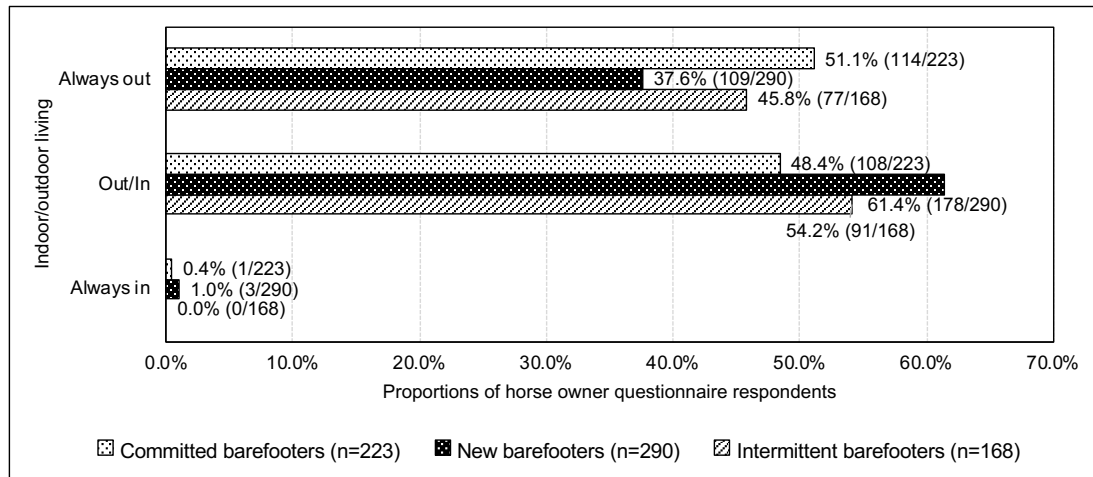


Figure 9.15 Proportions of horse owner questionnaire respondents who kept their horses indoors and/or outdoors (n=681)

Interviewed trimmers had highlighted the benefits of keeping horses on a track system (Section 6.3.2.3). Only about a fifth of horse owner questionnaire respondents reported that they had access to a track system (20.3%, 138/681). Differences between horse owner typology groups in terms of whether horses were kept on track systems were not statistically significantly different ($\chi^2 [4, 681]=6.610, p=0.158$).

Weight management

Weight management was an issue that trimmers highlighted as being important (see Section 6.3.2.2). Differences in terms of the numbers of horse owners in each typology group who monitored their horses' weight were not statistically significantly different ($\chi^2 [2, 678]=2.939, p=0.230$). Over four-fifths, (86.8%, 591/681) of horse owner questionnaire respondents indicated that either they or their trimmer regularly monitored their horse's weight. This proportion is in line with, but slightly lower than, the proportion of trimmers who indicated that at each visit they assessed the horse's general condition, which included an assessment of the horse's weight (93.8%, 30/32).

Horse owner questionnaire respondents were asked to indicate which of three suggested weight management strategies they employed (and were provided with a free-text box to use to provide details of other weight management strategies). Responses did not differ by horse owner typology group ($\chi^2 [4, 488]=7.193, p=0.126$). Just under three-quarters of horse owner questionnaire respondents reported implementing at least one weight monitoring strategy. The most frequently reported weight monitoring strategy (reported by just under half of the horse owner questionnaire respondents) was the use of permanent or temporary fencing to create

an area that restricted availability of grass and/or promoted movement. Further detail about the strategies that questionnaire respondents used to manage their horses' weight are provided in Figure 9.16.

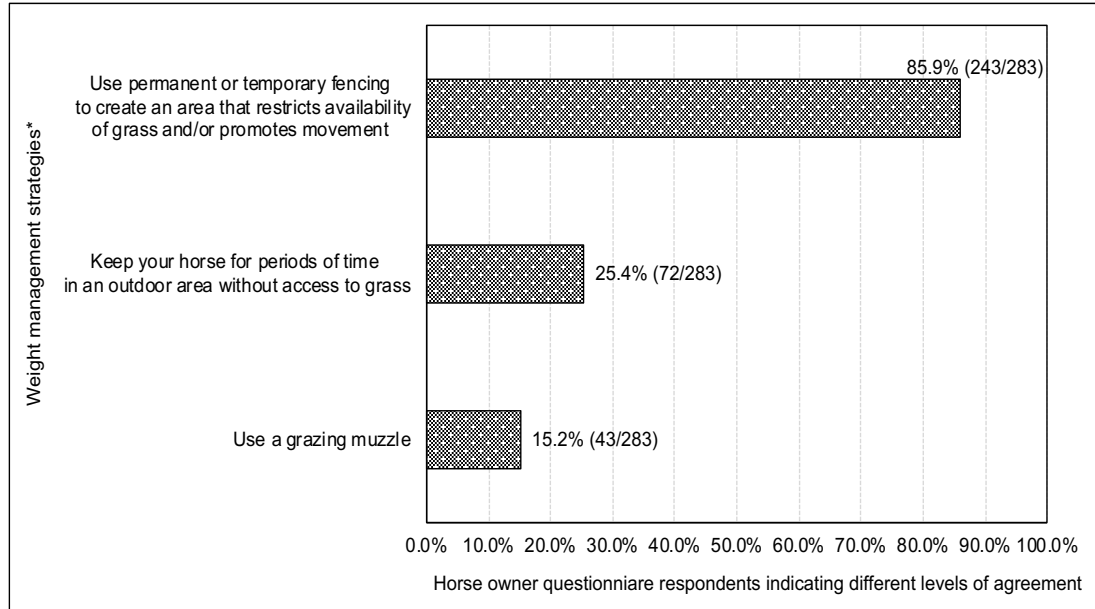


Figure 9.16 Strategies used by horse owner questionnaire respondents to manage their horses' weight (n=283)

* Some trimmer questionnaire respondents indicated using multiple strategies

9.3.3 Preventing and treating foot infections

Foot infection control was a task that trimmers recommend that owners should undertake (see Section 6.4.2.2). None of the interviewed horse owners appear to have considered that treating foot infections had been problematic. The products that interviewed horse owners reported using were products available for purchase on the Internet or from local shops. Interviewed horse owners reported using three products marketed for treating horses' feet (Field paste, Artimud and Hoof Stuff, which are all made by a company called Red Horse Products) and a product more commonly used to treat nappy rash.

Erm, I use Field Paste erm... because she had a touch of thrush... erm... so I have been, I use Field Paste maybe 2 or 3 times a week. [HO2, L168-169]

I use Red Horse Artimud, we have got problems with white lines and Red Horse Hoof Stuff, [...] I use Sudocrem for thrush all the time, not that we get much but when we do Sudocrem is what we use. [HO3, L170-175]

The horse owner questionnaire included a question that asked respondents to identify which of a list of 18 products they would definitely recommend that others should use to treat hoof/foot infections. These products were products that had been mentioned by interviewed trimmers, interviewed horse owners, or by individuals who had been involved with piloting the trimmer and horse owner questionnaires. Just under half of the questionnaire respondents indicated that they would recommend at least one of the 18 products (47.3%, 322/681). A free-text box was provided to allow respondents to add details about any other products they would recommend. Details about other products were provided by just over half of all respondents (52.6%, 358/681). Just under half of all questionnaire respondents provided both a recommendation for one of the 18 listed products and recommended other products (45.2%, 308/681). Several respondents took the opportunity to use the free-text box to state that their horse had never had a hoof/foot infection.

Five of the 18 products listed in the horse owner questionnaire were recommended by more than one-tenth of respondents. The five most frequently recommended products (>80 recommendations) were all sold by Red Horse Products. In terms of those recommending these five products, differences between horse owner typology groups were not statistically significantly different (χ^2 [6, 432]=8.751, p=0.188).

Of particular note was the large number of 'other' products that respondents stated they would recommend. None of these 'other' products were recommended by more than a twentieth (5.1%, 35/681) of respondents. Some of the 'other' products were marketed for the treatment of equine hooves, whilst others were marketed to treat livestock more generally. Traditional remedies were also suggested. Some questionnaire respondents recommended products more usually stored in human medicine cabinets or in other household locations. Herbal and health food products were recommended, as were a few products that fitted into none of these categories. Details of the products listed in the questionnaire and the 'other' products recommended by horse owner questionnaire respondents for the treatment of foot/hof infections are summarised in Table 9.1.

Table 9.1 Products that horse owner questionnaire respondents would recommend that others use to treat hoof/foot infections (n=358)

Category	Products used to treat equine foot infections
Products listed within the horse owner questionnaire (n=322)	
Marketed to treat hooves	Artimud, Field paste, Honeyheal, Hoofstuff, Sole cleanse, Stronghorn, Thrushender
Household products	Household bleach, Milton, Sudocrem
Human 'medicine cabinet'	Athletes foot cream, Caneston
Herbal and health food products	Cider vinegar, honey, tea tree products
Other	Hydrogen peroxide, silvetrasol (colloidal silver)
Products recommended in a free-text box (n=358)	
Marketed to treat horses' hooves	Aroma Frog, Aroma heel, Battles Green oil, CleanTrax, Cornucrescine, DuraSole, Gold label frog oil, Keratex hoof hardener, Keratex hoof disinfectant, Keratex mud shield, Kevin Bacon hoof conditioner, Kevin Bacon hoof dressing, Leovet summer gel, Leovet thrush powder, Leovet winter gel, Naf hard hoof, Naf mud guard, Nettex foot spray, NT-Dry, Pioneer herbal balm, Swan AntiBac, Swan Forge oil, Thrushbuster, Ungula frog balm, White Lightening
Marketed to treat livestock more generally	Antibiotics, Bactakil 55 (a combination of broad-spectrum biocides), Danilon (oral non-steroidal anti-inflammatory preparation), Fuciderm, Hibbiscrub, Hypocare (cleansing spray targeted at pets and horses), RenaSan (described as a first-aid spray), ToDay (cephapirin – used to treat mastitis in cows)
Traditional remedies	Bee's wax, epsom salts, copper sulphate, iodine, salt water, Stockholm tar
Human 'medicine cabinet'	AntiBac, baby's nappies, chlorhexidine mouth wash, Daktarin cream (antifungal preparation used to treat fungal and bacterial infections of the skin or nails)
Household (including garage) products	Epsom salts, baby bath, borax, Dettol, sugardyne, washing up liquid, WD-40
Herbal and health food products	Neem oil, lavender, oregano, arnica, calendula, diatomaceous earth (a powder containing 80-90% silica) Apple cider vinegar, coconut oil, diluted grapefruit seed extract, eucalyptus oil
Other	Isopropanol, low-level laser

9.4 Level of commitment to keeping their horse barefoot

None of the committed barefooters, by definition, could think of any circumstances that might lead them to have their horse shod. The views of the new and intermittent barefooters about whether they might shoe their horse in the future were statistically significantly different (χ^2 [1, 458]=324.411, $p<0.000$). Nearly three-quarters of the intermittent barefooters (70.2%, 118/168) could think of circumstances that might lead them to have their horse shod, whilst less than a quarter of the new barefooters (22.4%, 65/290) could think of such circumstances. New and intermittent barefooters

described similar situations that might lead them to have their horse shod. Some indicated that a wish to increase their horse's workload might lead them to have their horse shod. Others suggested an inability to manage environmental conditions or the development of a medical condition (both of these two reasons might restrict the level of work the horse was able to carry out barefoot). A recurring theme was that applying shoes would be the last resort (taken following veterinary surgeon and/or farrier/trimmer advice) on welfare grounds.

If the amount of hacking and of work led the feet to wear faster than I could get them to grow with the addition of supplements. Boots aren't working in Irish mud for my rehabs, never mind being ridden in the mud. [QR_HO260]

Increase in workload/ a change in the type of work he does. For example, if we were to go eventing in the future, I might consider using studs. [QR_HO271]

Some pretty dramatic veterinary reason. Not navicular, laminitis, poor hoof growth. Maybe a tumour or some need of support but would look at casts or glue-ons first. [QR_HO264]

Recommendation of vet or farrier. Hoof condition that would improve soundness and comfort of the horse if shod. Welfare is the most important. [QR_HO269]

9.5 Summary

In general, horse owners' views and practices are in line with those described by trimmers, however, there are three areas where there were notable differences. First, trimmers expressed a reluctance to take on clients who kept their horses on livery yards due to concerns that those owners would not be able to make the care and exercise changes that they considered necessary to successfully keep their horse barefoot; however, approximately a third of horse owners kept their horses on livery yards. Second, most trimmer questionnaire respondents considered that horses' diets should contain no or low levels of sugar and grain; however, there is evidence that horse owners feed products that are high in sugar and that they feed grain. Third, whilst trimmers put a high value on the reports that they compiled, it is not clear whether owners considered that these are valuable.

10 Discussion and concluding remarks

Despite the importance of horse's feet to their performance, little is known about how owners care for their horse's feet. The research presented in this thesis examined one aspect of equine foot care – that of keeping a horse barefoot. I studied this from the perspectives of the two main groups of people within the equine barefoot community, the barefoot trimmers (some of whom may be conventionally trained farriers) and the barefoot horse owners (some of whom may also be barefoot trimmers). This allowed me to gather information from both the perspective of the service providers (trimmers) and the perspective of the service users (horse owners). There are no published peer-reviewed studies that provide insight into the practices and beliefs of these two groups of people.

In the UK, keeping a horse barefoot is contrary to the norm, at least for horses that are in work [60, 69-71]. My research has explored the reasons for adopting a barefoot approach to equine foot care, the day-to-day practicalities associated with keeping a horse barefoot and the pressures horse owners and trimmers faced as a consequence of holding beliefs and acting in ways that were not in line with the majority. Rich, in-depth, data were collected from a small sample of interviewees and the extent to which key aspects highlighted during the interviews were relevant to the wider barefoot community was explored using two questionnaires, one that was completed by trimmers and the other by horse owners. The key areas explored using the trimmer questionnaire were the training that trimmers undertook before starting up in business, their trimming businesses and their day-to-day life as a trimmer. The horse owner questionnaire was used to gain a better understanding of why respondents decided to keep their horse barefoot, the care (including diet) that their barefoot horse received and the exercise that the horse undertook.

Findings from my research show that members of the barefoot community hold a wide range of beliefs about the type of care that barefoot horses require. However, despite this diversity, it was possible to develop a common overarching conceptual model that comprises three inter-linked component models (see Chapter 4 to Chapter 7). These models were developed from the analysis of trimmer interview transcripts and were supported by trimmer questionnaire data and the data collected from horse owners. The three inter-linked models help explain (i) becoming and being a trimmer, (ii) the balance management cycle (the three-step [Assess, Plan and Do] cycle used to describe the process of delivering barefoot care) and (iii) building and safeguarding trimmers' reputations.

Participants in my research assessed the success of keeping horses barefoot by the extent that a barefoot horse was comfortable at different speeds and on different terrains (something that I have referred to as the horse's level of 'foot functionality'). The term 'rock crunching' was used by members of the barefoot community to describe horse's feet that were able to withstand traversing rocky terrain with no consequent discomfort to the horse (the pinnacle of foot functionality). There was a belief that not all horses' feet could, or indeed needed, to reach this level of functionality. The minimum foot functionality goal for each barefoot horse was a state that enabled that horse to live without foot discomfort in its own world; this included being able to carry out the level of workload required by the horse's owner. Another novel term used by members of the barefoot community was the 'transition phase'; this was the period between shoe removal and the horse being comfortable barefoot. In addition, the concept of 'environment' was used by members of the barefoot community as an umbrella term for all factors (other than diet and exercise) that they perceived directly or indirectly affected horses' feet. The use of these concepts in the barefoot community reflects those elements of a horse's care that are important to them and, at the same time, highlights cultural differences between them and the community of owners who keep their horses shod.

However, findings from my research showed that the barefoot community was not one homogenous group and that the distinction between conventional hoof care and barefoot hoof care was not always clearly defined. It was possible to divide horse owner questionnaire respondents into three groups: committed barefooters (owners whose horse had always been barefoot and who would never have their horse shod), new barefooters (owners who changed to keeping their horse barefoot due to perceived benefits) and, intermittent barefooters (owners who sometimes kept their horse barefoot and sometimes kept their horse shod). Within the new barefoot group, some individuals had completely divorced themselves from the conventional hoof care community, whilst others acknowledged that there was a place for shoeing. Some new barefooters indicated that circumstances might arise that would lead them to have their horse shod. For the intermittent barefooters, the boundary between the barefoot and conventional hoof care communities was permeable, in that their horse was sometimes barefoot and sometimes shod. Further, intermittent barefooters who owned multiple horses kept some horses barefoot and others shod. In the UK, only registered farriers are legally permitted to shoe horses. Some intermittent barefooters employed a trimmer to trim their barefoot horses' feet (or undertook all, or some, of the necessary trimming themselves) and a farrier to shoe their shod horses. Whilst

some qualified farriers had moved from shoeing horses to only trimming the feet of barefoot horses, other farriers had mixed practices, sometimes shoeing and at other times just trimming horses' feet.

10.1 Delivering barefoot care

10.1.1 A shared accomplishment

Findings from my research showed that the delivery of barefoot care was a collaborative venture that was driven by trimmers' and horse owners' shared understanding of the problems and the goal(s) associated with this practice. Trimmers and horse owners worked together to manage each horse's care, exercise and the environmental factors that they believed affected that horse's feet. They did this within the context of each horse owner's knowledge, the owner's resources (which included the owner's PAT) and the influence of the owner's social circle, particularly their equestrian social circle.

The phrase 'shared accomplishment' was used in the context of equine care by Schuurman and Franklin [41] when studying equine retirement yards, i.e., yards that aim to accommodate equine death within the commercial care of leisure horses. Schuurman and Franklin [41] showed that in a retirement yard, the process leading up to a horse's death involved discussions between the yard owner, staff and horse owner, and also took into account the possible needs of other horses living on that yard. They considered that this could be understood as a form of shared interspecies accomplishment. In the yard studied by Schuurman and Franklin [41], horse owners were not integrally involved in delivering day-to-day care and, in the shared accomplishment of equine death, their role was peripheral. Almost in direct contrast to this situation, findings from my research demonstrated that once the transition phase is complete, horse owners take the lead role in the process of keeping their horse barefoot but with support from others, making it a shared accomplishment with a different set of dynamics from those described by Schuurman and Franklin [41]. The owner is supported by their trimmer and also others, such as veterinary surgeons, nutritionists and physiotherapists (the PAT). The contributions of PAT members were orchestrated by the owner who worked with individual or with multiple PAT members, to develop and implement strategies which they hoped would lead to the maintenance or improvement of the functionality of their horse's feet. Owners also drew on their wider social circle (including friends, family, other owners at the same livery yard and the internet) for advice and information. The advice received from members of

owners' wider social circles was reported to range from negative and unhelpful, to positive and supportive.

There is little published information about how members of an owner's PAT work in partnership with owners to deliver care to horses, but some insights can be drawn from the literature exploring how care is delivered in the human healthcare setting. One parallel is the concept of patient-centred care, which can be defined as (i) a systemic 'whole-person' approach [238] which (ii) promotes sustainable health generation in a manner applicable to the individual's circumstances, (iii) requires partnership and communication between patient and practitioner [239], and (iv) promotes active patient participation through education and shared decision-making [8]. If the word 'patient' is replaced with 'horse owner', then this description reflects the interactions between trimmers and horse owners in the delivery of equine foot-centred care.

During my research, the act of keeping a horse barefoot emerged as a holistic approach. Trimmers considered that anything within the world in which each horse lived might affect that horse's feet. The fact that some horses had been barefoot for the whole of their lives demonstrated that it was a sustainable process. Further, because each horse was unique, as was the world in which that horse lived, care (and exercise) needed to be tailored to that horse's specific circumstances. However, the focus of barefoot care was more specific than being just horse-centred, it was shown to be 'foot-centred' as the effect on a barefoot horse's feet was a crucial factor in all decisions about changes to that horse's care and exercise.

Trimmers saw part of their role as being to educate owners to empower them to be more actively involved in making all decisions relating to delivering barefoot care. In human medicine, some authors consider that shared decision making should be the norm in medical practice as it enables individuals to make reasoned informed choices [240]. It is suggested that it also allows the benefits of an intervention to be weighed against the risks and costs to the patient [240]. Similarly, in barefoot foot-centred care from the trimmer's perspective, there was an emphasis on the sharing of knowledge and decision making as a way of sustaining the management of the horse without shoes.

The process, described by trimmers, of developing the Plan mirrors the four key characteristics, outlined by Charles et al [241] for shared decision making in human medicine. First, that the process should involve at least two participants: physician

and patient. In the case of barefoot care, the process involves, as a minimum, the trimmer and the horse owner. Second, that both parties should share information. Trimmers participating in my research highlighted that during the assessment phase of an appointment they collected information from owners and they also imparted advice and knowledge to them. Third, a treatment decision is made and both parties agree to that decision. Trimmers stressed that they worked with horse owners to develop a Plan that the owner was happy and able to implement. Further, one of the reasons trimmers gave for ceasing to work with an owner was that the owner was not implementing the Plan.

Results from the horse owner survey showed that owners' decisions to keep their horse barefoot were not made in isolation, members of an owner's social circle were often influential in that individual's decision to keep their horse barefoot. Sometimes owners sought the opinion of members of their social circle but frequently it was seeing somebody else successfully keep their horse barefoot that was highly influential. The act of seeing a practice work for a person from the same community demonstrates the fact that such behaviours not only work but that they are also likely to be affordable, acceptable and sustainable for them [242]. Furthermore, one way to cope with the inherent uncertainty about an innovation's consequences is to try out the idea on a probationary basis [243]. The trial of a new idea by a peer can substitute, at least in part, for the individual's own trial of an innovation, at least for some individuals and for some innovations [243]. In the case of barefoot care, trialling the approach is low risk as, if the perceived benefits do not materialise, it is generally easy for the horse to return to wearing shoes.

10.1.2 Balancing contributing factors

My research showed that delivering barefoot care involved the continuous management of multiple diverse influences, ranging from one-off tasks (for example, employing the services of a nutritionists) to influences that affected the horse daily (for example, a previous injury). Some factors were directly controllable, for example, supplements fed to the horse, whilst some, like the weather, were uncontrollable. Results from my research showed that management was an integral part of strategies to optimise positive (and ameliorate negative) effects on horses' feet and thus to maintain or improve the functionality of the horse's feet. Sometimes the connections between influences caused problems for horse owners. The growth of grass during the spring can be used as an illustrative example. At times when there has been considerable grass growth, owners may wish to restrict access to grazing or increase

exercise to ensure that their horse does not get too fat. An owner of a barefoot horse will not only be aware of a risk of laminitis but also that added weight will exert unnecessary pressure on their horses' feet. If the only available way to restrict access to grazing is to keep the horse stabled, then the only form of exercise that the horse can take is structured exercise (i.e., exercise that involves the owner). Whilst owners of shod horses may face a similar scenario, this scenario is more serious for owners whose barefoot horses do not have a level of foot functionality that will allow them to cope with increased structured exercise.

Findings from my research showed that the way in which trimmers and horse owners shared tasks and responsibilities evolved over time. Once the horse had left the 'transition phase', the influences that affected foot functionality were considered to be mainly routine and the owner, who may have gone through a steep learning curve during the transition phase, would have most of the knowledge and skills necessary to identify and manage these factors. Thus, in terms of identifying causes and solutions to issues, over time, owners started to rely less and less on their trimmer and take on more and more of these responsibilities themselves. This meant that by the end of the horse's transition phase, the owner only needed to call on their trimmer for advice when faced with unique or particularly challenging situations. Thus, the term 'transition phase' related not only to the horse's feet but also to the owner's knowledge and competence, whilst balance related not only to factors affecting the horse's feet but also to how tasks and responsibilities were shared by owners and trimmers.

The concept of balance also featured in trimmers' client selection decisions. One element of the client selection process was to determine whether a potential client had the resources necessary to make any practical changes that would need to be implemented to ensure the successful delivery of barefoot care. This assessment was considered in conjunction with the current functionality of the horse's feet and the foot functionality goal. So, if the horse's current foot functionality level was similar to the ultimate foot functionality goal, then the owner would only need limited resources to effectively implement the balance management cycle, and *vice versa*. Thus, if there was a balance between availability of resources and the foot functionality goal, one or the other might need to change for the trimmer to decide that they were happy to work with the potential client.

10.2 Complementary and alternative approaches to care

During the course of my research a few individuals (veterinary surgeons and others with an interest in equine welfare) suggested that keeping a horse barefoot was an approach adopted by people who had turned away from conventional approaches of providing care and no longer relied on traditional expert knowledge. The horse owner typology groups that emerged from my data are very similar to groupings that have been suggested for CAM users, namely (i) principalists, who believe in CAM, (ii) people who are primarily frustrated with conventional medicine, and (iii) opportunists, who shop around [244]. These groupings help to illustrate that the distinction between CAM and conventional approaches to healthcare are not always clearly defined.

The anticipated benefits arising from use of CAMs [125], and the reasons for employing a barefoot approach to hoof care were wide ranging. In both case the benefits related to either improving health (for example, to resolve a current health issue, disease prevention and health/general well-being promotion) or wanting a different approach to delivering care (for example, supporting the natural healing process, holistic care, and to save money). The wide range of benefits suggests that these approaches may appeal to a wide range of people in a wide range of differing circumstances. Research has shown that patients who use CAM do so most often at opposite ends of the disease spectrum: either for chronic, minor illnesses (for example, back pain) or for devastating, life threatening conditions (for example, cancer) [123]. In both situations, conventional options may be perceived as either ineffective and/or too toxic [123]. Similarly, findings from my research have shown that horse owners have adopted a barefoot approach to hoof care to tackle minor issues (such as minor hoof infections) and when their horse has been described as being in the 'last chance saloon'.

Nearly half of horse owner survey respondents believed that a natural approach to hoof care was best. Similarly, results from qualitative studies have suggested that natural treatments are valued by people who use CAM [126]. However, Bishop et al [126] have highlighted that cross-sectional studies make it is impossible to determine with any confidence whether such a belief is held prior to uptake of CAM or whether the belief develops as a result of CAM experiences. It should also be highlighted that natural is not a synonym for harmless; many naturally occurring products are poisonous, for example, arsenic (a chemical element occurring in many minerals) [245] and *Conium maculatum* (a plant commonly known as hemlock) [246].

Many respondents to the horse owners survey were motivated to keep their horse barefoot after having heard, or seen, how successful a barefoot approach to hoof care had been for others. This phenomenon has also been observed in studies of people using CAMs [247, 248]. The act of seeing a practice work for a person from the same community demonstrates the fact that such behaviours work, and also that they are likely to be affordable, acceptable and sustainable for members of that community [242]. Furthermore, one way to cope with the inherent uncertainty about an innovation's consequences is to try out the idea on a probationary basis [243]. The trial of a new idea by a peer can substitute, at least in part, for the individual's trial of an innovation, at least for some individuals and for some innovations [243]. In the case of keeping a horse barefoot care, trialling the approach is low risk as if it is perceived not to offer relative advantage, it is generally easy for the horse to return to wearing shoes.

Some horse owner questionnaire respondents indicated that farrier- or farriery-related issues had been influential in their decision to keep their horse barefoot. However, these types of reasons were expressed by fewer than 20% of respondents. Similarly, whilst it is reported that some patients [248] (and parents [247]) turned to alternative medicine due to dissatisfaction with traditional health care providers, this was not always the case [247]. Indeed, findings from one study showed that parents were satisfied with their children's' traditional primary care providers and valued their expertise [247].

Findings from my research showed that an owner's decision to keep their horse barefoot often acted as a first step in a journey that entailed exploring different ways of delivering care to their horse and ended with foot-centred care, an entirely new way of thinking about horse care. In some, but not all, cases these new ways could be considered to reflect a more natural approach to care, for example, avoiding feeding the horse synthetic food stuffs and increasing the length of time the horse spent in a field; however, some practices associated with delivering foot-centred care cannot be categorised as a natural, including use of hoof boots and some approaches used to treat equine foot infections.

As discussed in Chapter 2, amongst some dog owners there is enthusiasm for feeding raw meat-based diets. Morelli et al found that owners see this type of diet as being more natural and healthier than commercial pet food [142]. It is not clear, however, whether these pet owners adopted other practices that could be considered 'natural'. In terms of training, this might include use of dominance and pack leadership theory

(the assumption that dogs are strongly motivated to establish hierarchical relationships with each other and with their human cohabitants) to inform protocols to address any behaviour issues [249]. Amongst horse owners, findings from a study of proponents of natural horsemanship training methods showed that these individuals were generally enthusiastic about doing everything ‘naturally’ with their horses [136]. My research did not explore whether owners who kept their horses barefoot also used natural horsemanship training methods; however, as one frequently cited benefit of keeping horses barefoot was that it offered a natural approach, natural horsemanship training methods might be attractive to these barefoot proponents.

10.2.1 Turning away from traditional expertise and authority

Findings from my research showed that over a third of horse owner questionnaire respondents employed a farrier to trim their horses’ feet. This suggests support amongst barefoot horse owners for conventional approaches to equine foot care. However, it was also clear that owners adopted trimmers’ advice and some of that advice was unusual, for example, hand walking in pads.

False information is not a new phenomenon; Thomas Jefferson (third President of the USA, 1801-1809) considered fake news as a kind of entertainment, even an art:

We never reflect whether the story we read be truth or fiction. If the painting be lively, and a tolerable picture of nature, we are thrown into a reverie, from which if we awaken it is the fault of the writer [Jefferson 1771 [250]]

However, it is recognised that the task of communicating health and science information is getting more difficult due to proliferation of ‘information noise’ through an explosion of media and Internet outlets [251, 252]. Theoretical constructs such as the availability heuristic [253], the recognition heuristic [254], and the evaluability hypothesis [255] converge on the idea that if information is hard to evaluate it will be weighted less heavily in decisions than if it is easy to evaluate. Another complicating construct is confirmation bias. This is the tendency for people (experts and lay people alike) to only accept facts that corroborate their pre-existing subjective opinions about something. Any fact or opinion that contradicts this belief is ignored, dismissed as false, or twisted to fit a pre-ascribed agenda [256]. Conversely, people tend not to seek, and perhaps even to avoid, information that would be considered counter indicative with respect to their hypotheses or beliefs and supportive of alternative possibilities [257].

Results from analyses undertaken by Goldberg and Richey [144] showed that anti-vaccination beliefs were best explained as being part of a common psychological predisposition for conspiracy beliefs. The primary predictor was political distrust. Goldberg suggests that it follows that if anti-vaccination beliefs are a form of conspiracy belief, any information to debunk those beliefs which derives its validity from the establishment and the government will seem suspicious to a conspiracy theorist. Nevertheless, results from studies have highlighted that information delivered by veterinary surgeons still has a role to play in influencing owners [30, 258, 259], although other approaches taken by veterinary surgeons were also important. Findings from a study carried out to explore factors associated with owner adherence to an elimination diet trial recommended by veterinary surgeons for dogs showed that the likelihood of owners adhering completely to recommendations was significantly increased by owner knowledge regarding diets and their confidence in providing the recommended diet, and was significantly decreased by their perceptions of barriers [259]. Kuper and Merle [258] found that partnership-centred and empathic communication, i.e., addressing pet owners' worries and fears, and discussing pros and cons of diagnostic and therapeutic options, decreased German companion animal and horses owner needs for further information (for example, from online sources) and their need to consult alternative health providers (for example, homeopaths). These findings indicate that whilst providing information is important, so too are the veterinary surgeons' interpersonal skills. Findings from my research showed that trimmers worked to build strong relationships with their horse owner clients; the strength of these relationships may, at least in part, play an important role in influencing horse owners to adhere to trimmer advice.

In his book *The Death of Expertise*, Nichols' offers the following advice to people working in the political sphere which, arguably, is more widely generalisable:

Laypeople cannot do without experts, and they must accept this reality without rancour. Experts, likewise, must accept that their advice, which might seem obvious and right to them, will not always be taken in a democracy that may not value the same things they do [Nichols 2017, p238 [260]]

10.3 Reputation

Findings from my research showed that trimmers employed reputation building and safeguarding strategies. A good reputation is considered to lead to numerous favourable outcomes for businesses, including attracting customers, capital gain,

profit and safeguarding from crises [261]. However, empirical evidence about the relationship between (perceived) reputation and these outcomes is sparse [261]. This may be due, at least in part, to there being no converging theme or consensus on the definition of reputation. Helm [261] has synthesised 11 different academic definitions of the word (used in relation to companies) as follows:

...a stakeholder's overall evaluation of a firm in respect to its past, present, and future handling of stakeholder relationships that reflect a firm's ability and willingness to meet stakeholders' expectations continuously and describes the firm's overall appeal to all of its constituents when compared with other firms. [Helm 2011 [261]]

There are considered to be four sources of reputational perceptions: the firm, the media, the individual's experiences, and other communicated experiences [261]. Thus, reputations are not built (or destroyed) in isolation and can be considered co-productions. The situation is complicated by the fact that reputation is a multidimensional construct that can be considered to include perceptions of credibility, reliability, responsibility, trustworthiness and competence [261]. Furthermore, different stakeholders may all perceive reputation differently based on their different needs and expectations [262].

Trimmers considered that for barefoot care to be successful (i.e., a public demonstration of their competence) it was very important that horse owners adhered to their care and exercise advice. A study (carried out in Sweden) to describe dairy and beef farmers' reasons for adherence or non-adherence to veterinary herd health management advice found that, overall, the most commonly stated reasons related to trust (in the veterinary surgeon, the advisory process or the suggested preventative measures) [263]. The other reasons associated with Swedish farmers' adherence or non-adherence to veterinary advice were related to feasibility (the farmer's ability to implement the advice) and whether the advice provided by the veterinary surgeon aligned with the farmer's priorities [263]. My findings showed that the Plans were a trimmer-horse owner co-production, which helped ensure that they were feasible. Furthermore, horse owners not being fully engaged in the process of delivering foot-centred care (i.e., it was not a priority for them) was one of the reasons that trimmers provided for terminating relationships with owners.

In human medicine greater trust in physicians has been shown to be meaningfully related to reductions in patient turnover, higher willingness to recommend a physician to others, fewer disagreements over treatment suggestions, and greater perceptions regarding effectiveness of delivery of care [264]. There are similarities between the role of trust in the contexts of delivering human healthcare and its role in delivering barefoot care. There is a need for the patient (horse owner) to trust the competence and incentives of the practitioner on whom they rely [265]. Further, inter-personal trust is required due to the vulnerability associated with ill health, as well as the information asymmetries in a healthcare setting [266]. Findings from my research showed that trimmers took steps to build both types of trust. They demonstrated professional competence by undertaking CPD to increase their knowledge and to ensure trimming standards were met, and they also worked to develop strong personal relationships with horse owners.

Parsons [267], writing about the legal profession, suggested that there was an inherent asymmetry in the relationship between professionals and clients since professionals commanded a specialised and legitimate formal knowledge and expertise in identifying and solving the client's problem. This type of relationship reflects Danish farmers' experiences of working with veterinary surgeons, where an asymmetric power relationship was reported to typically exist and where the farmer was supposed to be the one learning from the professional 'expert' [268]. However, Harrits [269], suggested that this relationship might be too simplistic for professionals whose work involved close and frequent interactions with clients. Harrits [269] interviewed Danish health nurses and found that for a majority, their relationship with families, and the families' use of formal and practical knowledge, were intertwined. Further, establishing a relationship appeared to be a prerequisite to families using the health nurse's knowledge [269]. Certainly, trimmers spent time building relationships with their clients. It appeared that over time their relationships with clients evolved. At the outset, their role was largely to trim the horse's feet and impart advice for the owner to follow, i.e., their relationship with their client was similar to the functional relationship described by Parsons [267]. However, over time, as owners gained more knowledge and took on more responsibility for delivering barefoot care, their relationships with their clients become more complex, with some clients even becoming friends.

Data collected using the horse owner questionnaire showed that seeing how successful keeping a horse barefoot was for others influenced a high proportion of new barefooters to move from keeping their horse shod to barefoot. Thus, current owners of barefoot horses play a fundamental role in the process of building a trimmer's business. A study of what motivated consumers to provide positive or negative word of mouth recommendations concluded that one of the key drivers of positive word of mouth recommendations was the provision of efficient and timely responses to customer queries/demands (the other was delivering unique and superior product performances) [270]. The provision of good customer service was one of the strategies used by trimmers to build strong relationships with horse owners, even considering some of them to be friends. Wider research findings suggest that this merging of individual and organisational relationships is not unusual and that the merging of individual and organisational relationships become mutually reinforcing [271]. Furthermore, this overlap of personal and business relationships has been shown to enable and enhance trust in business operations [271].

Trimmers recognised that sometimes it took time for improvements in foot functionality to be realised. Because of the time delay, owners needed to have trust in their trimmer's competence. Also, if owners perceived that implementing some of the strategies required to support their barefoot horse was onerous, they could become disillusioned with progress and waiver in their commitment to keeping their horse barefoot. During such periods of struggle, trimmers recognised that their reputations were at risk. If the owner subsequently decided to revert to having their horse shod, then this could be seen to be due to failure of the trimmer methods in particular, or of barefoot in general. Whatever the reason, this was considered to damage the trimmer's reputation. Trimmers tried to limit this risk through their client selection processes. Further, they offered extensive support to owners who were struggling and also sought ways to terminate relationships with clients who were deemed not to be invested in the barefoot approach.

Once the transition phase is complete, the choreography and implementation of the balance management cycle lie largely in the hands of the barefoot horse owners. Because of links between implementing the balance management cycle and successfully keeping a horse barefoot, horse owners (wittingly or unwittingly) shoulder considerable responsibility for maintaining and enhancing trimmers' business reputations. A horse that is comfortable barefoot is a demonstration of the trimmer's (and the owner's) competence. Client de-selection occurred if the trimmer

felt that an owner was not playing their role as they considered that without the necessary input from the owner, the shared foot functionality goal (the shared accomplishment) could not be reached. For trimmers, client de-selection protected their reputation in two ways: by reducing their number of unhappy clients and by limiting the length of time an unhappy client could identify new complaints to make about them.

It is not only the care that horse owners provide that risks undermining a trimmer's reputation, but also where they keep their horse and the type of work their horse undertakes. Birke et al [42] have highlighted that keeping a horse is a public activity, particularly for those who keep their horse at livery, but also for anyone who takes their horse out into a public space, for example, on a road or a bridleway, or to an event. Because the success of keeping a horse barefoot is judged visually (by whether the observer considers that the horse is comfortable), any time a barefoot horse is taken into a public space the reputation of the trimmer's business is open to (re-)evaluation by observers. This is particularly important as some of the techniques employed by members of the barefoot community are unconventional (for example, affixing Styrofoam pads to the horse's feet [with duct tape] and then walking the horse in-hand) and are likely to draw attention to the horse. In addition, the holistic nature of barefoot care means that members of the owner's PAT will also have opportunities to make evaluations from their respective professional perspectives.

Trimmers operate in a world where farriers have historically held the monopoly over the provision of routine equine foot care services and findings from my research have shown that relationships between trimmers and farriers have not always been positive. Further, findings from my research showed that trimmers ceased working with owners who did not follow their advice. Trimmers thus operate in a context where their work is questioned, although the current level of criticism targeted at trimmers does not appear to be as intense as it was in the past (see Chapter 2). There is consistent evidence from the literature that negative word of mouth messages influence consumer behaviour more than positive word of mouth ones [272]. However, having a good reputation helps trimmers ameliorate negative messages as a favourable reputation can be likened to a bank account containing reputational capital [273]. This means that an organisation with a lot of reputational capital can afford to spend or lose some of that capital in a crisis and still maintain a strong crisis post-crisis reputation [273]. Moreover, it has been shown that prior reputation can not only act as a shield but can also help facilitate damage repair [273].

Whilst I have focused on trimmers' reputations, findings also showed that the change to keeping their horse barefoot could affect horse owners' reputations. By putting their trust in the trimmer (and/or the process of keeping their horse barefoot), owners take a leap from the certainty and familiarity of keeping their horse barefoot to the unknown world of barefoot care. Whilst findings from my research showed that one of the main reasons owners decided to keep their horse barefoot was to improve the care that they are provided to their horse, findings also showed that on seeing a horse being kept barefoot observers expressed incredulity, suggesting that this change might challenge the owner's image as a responsible horse owner. This challenge might be more overt and heightened if the horse is not immediately comfortable barefoot.

Results from a survey of 204 senior European managers (across a variety of organisations, including corporations, government bodies, non-government organisations and associations) showed that the majority of organisations (61%) viewed corporate reputation as something to build proactively for value creation [274]. However, their reported behaviour indicated that organisations were much more focused on avoiding risk (50%) than proactively building a reputation (30%) [274]. It is unclear whether trimmers consciously recognised that their actions reflected reputation building and safeguarding strategies – the word 'reputation' was not mentioned in any of the data (interviews or questionnaires) collected from owners and trimmers. Similarly, authors exploring reputation building amongst small businesses concluded that few small businesses followed an explicit reputation building strategy [275]. However, these authors [275] reached their conclusions as a consequence of only finding a limited number of references to such strategies within the small business literature, so it is possible that, like trimmers, other small businesses do employ such strategies, but do so unconsciously.

10.4 Limitations

Data used to inform the research presented in this thesis were collected via interviews and surveys. The use of both methods had the benefit of allowing in-depth information to be collected from a small sample of participants and gathering more superficial data from a larger sample of participants, drawing on the strengths of both approaches [276].

When recruiting trimmer interviewees, the initial aim had been to interview trimmers who were (or had been) members of six trimming organisations that had (at any time) had more than one UK member. However, it was only possible to recruit trimmers who were (or who had at one time been) members of four of the six organisations

(five potential interviewees did not reply to invitations to participate in interviews). Thus, the sample of interviewed trimmers are not representative of the whole trimmer population. The extent to which data collected from a wider sample of trimmer would have affected the structure of the conceptual models is unknown. However, the trimmer interview data included a very wide range of (sometimes conflicting) practices and beliefs and the models were sufficiently robust to support the collected data.

Three of the five interviewed horse owners were recommended as candidates for interviews by one trimmer. This may mean that the full range of barefoot horse owner practices and beliefs may not have been captured via the interviews. This limitation is further exacerbated by the fact that all three of these interviewees (plus one of the other interviewees) had decided to keep their horse barefoot as a result of hoof-related issues that had not been resolved using conventional hoof care methods. As the horse owner survey questions were developed based on data collected via interviews, the survey questions tended to focus on the transition from shod to barefoot rather than routine care. However, the survey results showed that, in many cases, there were no statistically significant differences in responses to questions by horse owner typology group.

There were limitations to the horse owner questionnaire that are inherent in all open, Internet-based surveys. First, the requirement for Internet access to complete the survey may have meant that respondents were biased towards the more Internet literate and those with easy access to the Internet. It is not possible to determine whether this had an effect or even the direction of effect. An examination of response rates to paper-and-pencil and online surveys administered to US college students showed that, in most cases, response rates to paper-and-pencil surveys were higher than those to online surveys, but that this was not always the case [277]. However, this finding may simply reflect that this comparison was published in 2003. Second, findings from the horse owner questionnaire may be subject to self-selection bias. Self-selection bias is the problem that occurs when questionnaire respondents are allowed to decide entirely for themselves whether to participate [278]. The issue is that self-selection may lead to biased data as the respondents who choose to participate may not be representative of the entire target population [278].

These sampling issues inhibit the ability to confidently generalise results from the horse owner questionnaires. However, this limitation would have been more serious had the purpose of my research been to reach probability-based conclusions [279] rather than, as was the case, describing the complexity and diversity of the barefoot

community. Furthermore, as over 600 owners responded to the horse owner questionnaire, the generalisability of findings may be appropriate.

The limitations relating to the completion of the online horse owner survey are not relevant to the trimmer survey as trimmers whose contact details were published on websites were sent personalised invitations asking them to complete the survey, although, is not certain whether the recipient of the email was always the person who completed the questionnaire [280]. However, the completion rate was high and similar to that for the 2008 Lantra survey [155] rate (46% versus 51% respectively). There were also similarities between the two surveys in terms of the organisations from which trimmers had received training or to which they belonged. Just over half of those who completed the trimmer survey had received training from EPT or the IAEP, whilst results from the 2008 Lantra survey [155] showed that just over half of the respondents were members of the EPA (successful completion of the EPT diploma qualifies an individual for membership of EPA or the IAEP). However, whilst the similarities offer some reassurance, the very low rates of completion from individuals who are associated with other trimmer organisations (or who are not associated with any trimmer organisation) should be taken into account when generalising results.

Findings from my research showed that whilst some proponents held extreme views about shoeing, others were much more pragmatic. In contrast, the summary of Victorian England newspaper cuttings presented by Harper [147] suggests that these individuals had an '*...evangelical zeal for damning horseshoes as something used by unthinking horse owners*'. Similarly, opinions expressed in letters published in the Journal of Equine Veterinary Science between 2003 and 2004 (Chapter 2) highlight extreme views for and against keeping horse barefoot. Whilst my research did not seek to quantify public opinion on keeping horses barefoot, findings showed that some trimmers and some barefooter horse owners, saw benefits from keeping horses shod and also perceived that keeping horses barefoot offered advantages. Research carried out by Mullainathan and Shleifer [281] have shown that on topics where reader beliefs diverge, newspapers segment the market and slant towards extreme positions. The published extreme views may, therefore, simply reflect the media adoption of an economic strategy that is based on reader confirmation bias rather than being a true reflection of public opinion.

My research only involved collecting data from those involved in delivering barefoot care; no data were collected from those who oppose the practice. On balance, findings focused on the advantages of the practice; equal consideration was not given

to the disbenefits associated with the approach. This is an important limitation as it has been shown that people do not compensate sufficiently for missing information even when it is clear that the information available to them is incomplete [282]. An awareness of the views of opponents to keeping horses barefoot could help proponents to be more sympathetic towards, or tolerant of, those who hold views that differ from their own.

10.5 Suggestions for complementary research

I have only explored the process of keeping horses barefoot from the perspectives of barefoot trimmers and owners of barefoot horses. Two groups of people who are notably absent from my research are (UK registered) farriers and veterinary surgeons. It would be interesting to compare the attitudes of conventional and barefoot hoof care proponents to the practice of keeping horses without shoes. Research to understand what keeping horses barefoot means to these two groups of people and other PAT members would fill a knowledge gap. A better understanding of PAT members' perspectives would facilitate improved communication between horse owners and these service providers. Results from a study that took place in human healthcare found that when patients and health care providers listen and communicate with each other, they are likely to develop a shared understanding that may improve future decision making and quality of care patients receive [283], suggesting that results from similar research might be valuable to the horse owner community.

My research has highlighted that the care and exercise decisions made by owners who keep their horses shod are centred around the potential effect of these decisions on their horses' feet and that owners of barefoot horses determine success by the extent to which their horse is comfortable barefoot. Owners of shod horses are faced with the same range of diet, exercise and environmental influences as barefoot horse owners, but it is not known how owners of shod horses manage these factors. Nor is it clear how they assess whether their practices are successful (either in terms of keeping their horse in general or specifically in relation to hoof care). An improved understanding of what drives horse owner practices would be useful when formulating messages to encourage uptake of equine health care prevention or cure strategies.

Results from my research showed that approximately two-thirds of respondents owned more than one horse and that the care barefoot horses received was tailored to each horse's perceived needs. However, the complexities associated with delivering tailored care to more than one horse are not known. If resources are finite

and two horses have competing interests (for example, one tends to be overweight and the other to be underweight), do owners prioritise one horse's needs over another and, if so, how do they make such decisions? One question arising directly from my research is whether it was competing priorities that led intermittent barefooters to sometimes keep their horse barefoot and sometimes to have that horse shod (or to keep some horses always barefoot and other horses always shod)? An understanding of how owners perceive and manage competing interests could inform the design of adaptations to facilities and products to avoid interests ever being competing.

Reputation has shown to be very important in terms of building and maintaining trimmers' businesses. However, it is not clear how trimmers' business reputations develop (particularly, the antecedents of reputation), the nature of the risks to reputation and, what makes (or would make) trimmers businesses resilient to attacks on their reputation. Many other small businesses provide services to horse owners, not least farriers and some veterinary practices. A deep understanding of these issues could help all small businesses providing services to the equine community.

10.6 Contribution to knowledge

My research has contributed to knowledge by improving understanding of the barefoot community, a community that has not been extensively researched. Whilst it has only focused on a small group, each small-scale study contributes to an overall picture and that overall picture might be deceptive if it did not include all perspectives [284]. Members of a barefoot horse owner's PAT who do not have a full understanding of keeping horses barefoot can use the findings presented in this thesis to help them frame their advice and inform how they support barefoot horse owners.

One of the elements of the overarching conceptual model focused on the importance of reputation to trimmers' businesses. Although corporate reputation has been widely studied [285], there is a paucity of literature demonstrating the importance of this concept to small businesses, particularly sole traders, and findings from my research help fill some of this knowledge gap.

10.7 Concluding remarks

This study is the first to explore the complex practices and beliefs of trimmers and barefoot horse owners. Findings have shown that barefoot care is a foot-centred approach that involves balancing the ever-changing multiple (and sometimes

competing) factors that affect horses' feet. The holistic nature of barefoot care means that my research has revealed insights not only into the care of barefoot horses' feet, but also the wider care and exercise regimes employed by members of the barefoot community.

My findings have shown that the successful delivery of barefoot care is a shared accomplishment, with the input provided by different people varying in nature and intensity depending on individual circumstances. Another key finding is the role that reputation plays in building and sustaining trimmers' businesses. Importantly, as trimmers' business reputations are largely based on peoples' perceptions of the success of keeping a horse barefoot, horse owners (who are the individuals largely responsible for the successful delivery of barefoot care), play a major role in the success (or otherwise) of trimmers businesses. Thus, the process of building and maintaining trimmers' reputations is also a shared accomplishment.

My findings have highlighted contextual factors that influence barefoot horse owners' when making care and exercise decisions. I hope that future researchers will build on these findings to explore the drivers of shod horse owners' care and exercise decisions.

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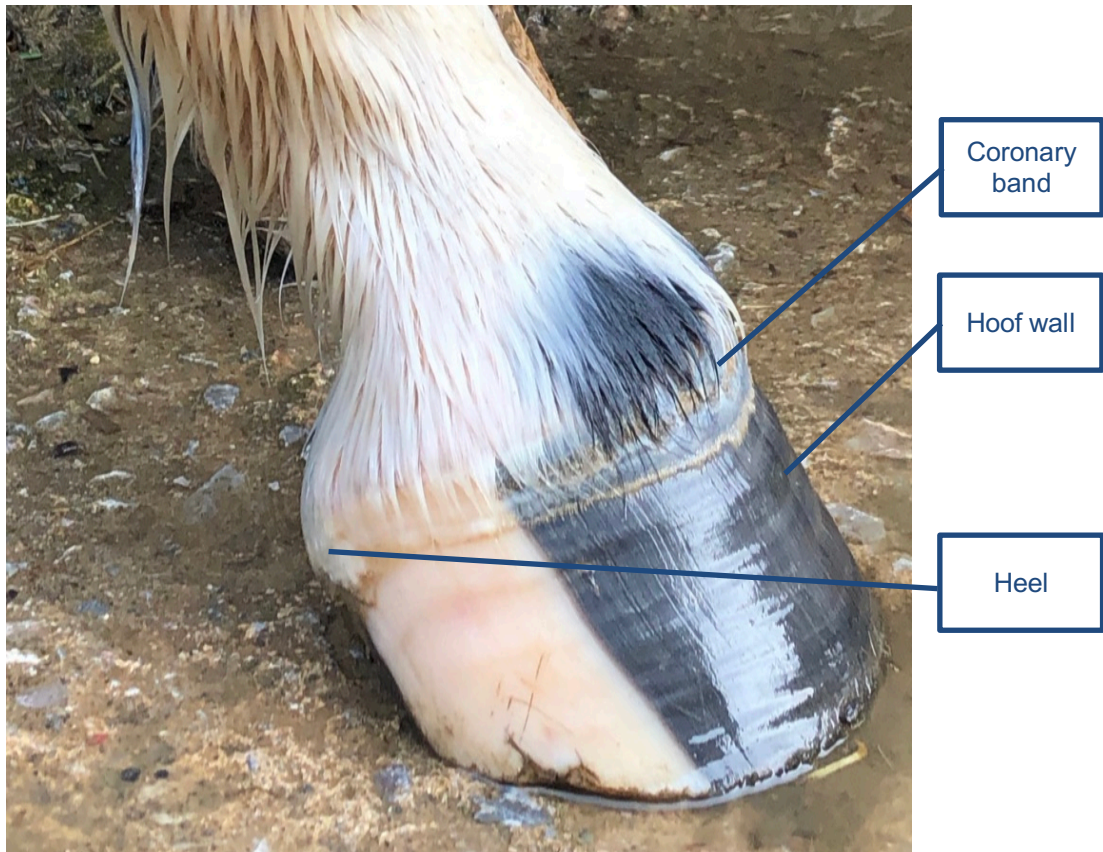
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12 Appendices

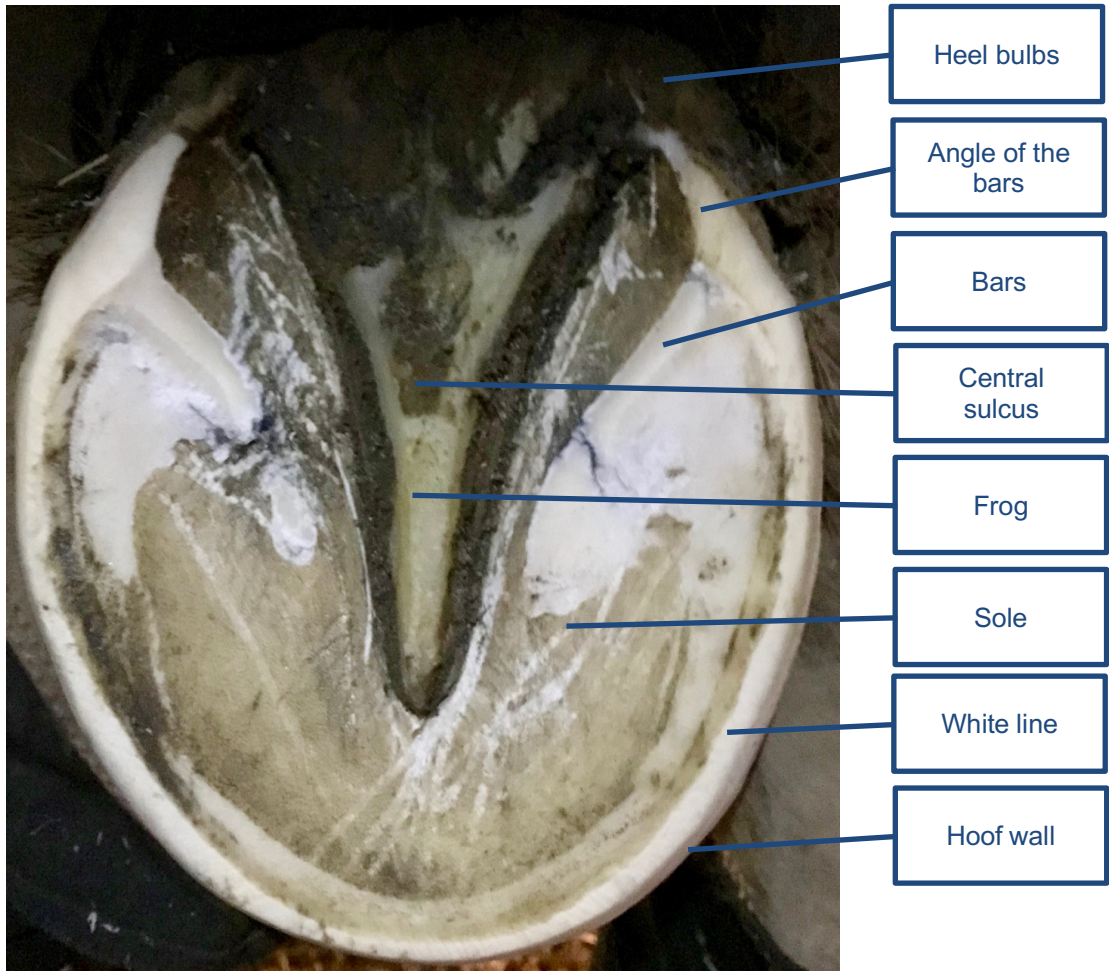
12.1 Appendix A: Anatomical photographs

Anatomical photographs



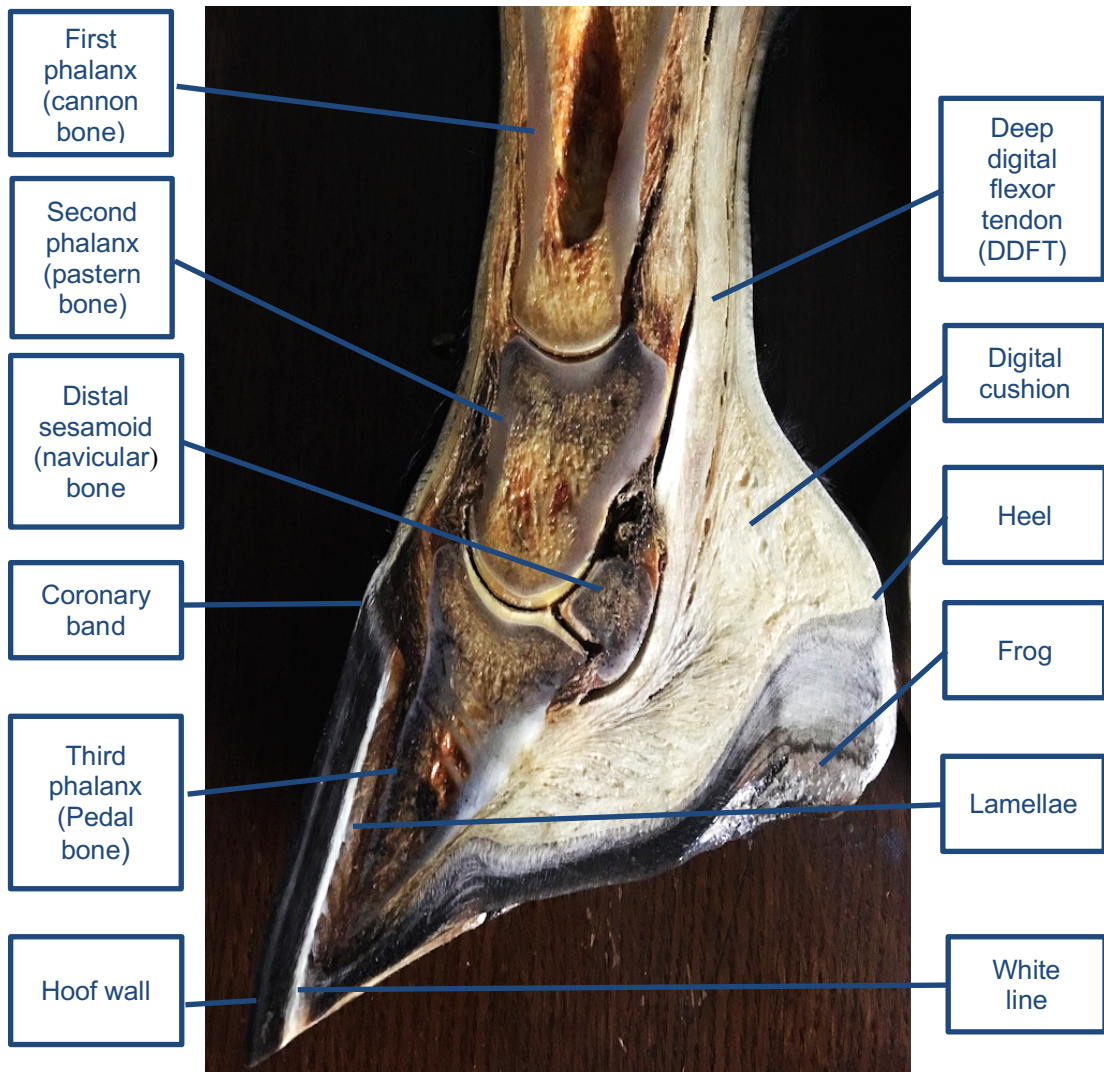
Photograph 1 Posterior-lateral view of right fore foot

Photographed by the author in 2020



Photograph 2 The solar (underside) of a horse's foot

Photographed by the author in 2020



Photograph 3 Cross section of a (freeze-dried) horse's foot with key anatomical features relevant to the research presented in this thesis highlighted

Photographed by the author in 2020

12.2 Appendix B: Information about different approaches to barefoot

Box B.1 The Strasser's approach to hoof care

- The Strasser trim is designed to reflect the shape in which a healthy foot would wear in the wild, as well as the form of the underlying structure which produce it (the coffin bone)
- Sometimes it is necessary to make very frequent trimming adjustments (2 or 3 times a week) when severe lameness or pathology is present. This may be carried out by an owner but always under a Strasser trimmer's expert guidance
- Strasser recommends avoiding the use of conventional drugs for lame horses. Her rationale is two-fold:
 - conventional pain killers may encourage a horse with pathological feet to move excessively, thus causing even further damage
 - severely and/or chronically lame horses may have metabolic issues and the increased circulation resulting from her trim method may release substantial toxins from necrotic hoof tissues so that already stressed and compromised internal organs may be dangerously overloaded if drug residues must also be metabolised.
- Owner commitment to providing a natural lifestyle is of paramount importance. This includes:
 - freedom of movement 24 hours a day (i.e., no stall confinement and no bedding, in conditions which provide exposure to the elements, including types of terrain the horse will encounter when in work (ideally part mud/water, part pasture, part gravel/concrete)
 - herd life
 - free choice hay or grazing 24 hours a day
 - daily exposure of hooves to water
 - natural amount of movement (about 10 miles per day) on breed-appropriate terrain*
 - no clothing
 - abstinence from use of conventional circulation reducing drugs
 - no horseshoes under any circumstances (healing requires increased circulation but shoes restrict circulation and, therefore, can never contribute to healing)

* The term 'breed-appropriate terrain' is not defined in the article
Source: McDonald [286]

Box B.2 Natural trimming – key concepts

Key concepts:

- shoes prevent natural wear and the formation of naturally shaped hooves
- the bare hoof is trimmed to optimise the way the hoof 'flexes' and 'contracts' as it loads (bears weight) and unloads (in flight)
- hooves are trimmed at a minimum of 4-week intervals, but only if needed
- hoof boots are fitted on horses that are going barefoot for the first time or are being ridden over terrain to which they are unaccustomed
- horse owners are encouraged to understand how the way horses are kept can impact on their feet. Considerable attention is given to finding ways to provide horses with more natural living conditions
- natural hoof care practitioners encourage owners to learn about biomechanics and how movement can impact on horses' feet
- riders are encouraged to learn about saddle fit – a poorly fitting saddle can impact on the way that horses move (and, therefore, on their feet)

Source: Jackson 2002 [287]

Box B.3 Key principles underpinning the IAEP approach to barefoot care

The key principles of applied equine podiatry are:

- the horse has an innate ability to heal itself, provided the proper environment exists - improper hoof conformation and hoof capsule irregularities interfere with this ability
- an understanding of correct structure and the function of each structure it is possible to determine what is needed to provide the stimulus needed to achieve peak performance
- correct pressure will result in healthy tissue whilst too much, or too little, pressure will result in poor tissue development
- never should living tissue be invaded
- always work toward returning proper function to the foot, but not at the expense of the comfort of the horse
- time is a dimension and a valuable tool and should be used to full advantage
- inducing trauma to increase circulation should never be entertained
- removal of hoof material should be kept to a minimum and limited to placing the foot's working systems safely back into equilibrium
- do no harm

IAEP=Institute of Applied Equine Podiatry
Source: La Pierre 2004 [288]

Box B.4 IAEP approaches to managing factors that affect horses' hooves

Management of factors that affect horses hooves:

- exercise is important but hand walking and active turnout (when accompanied by appropriate trimming) can suffice
- horses' hooves should be exposed to a variety of conditions including dry, wet, abrasive and concussive
- feed, in the form of grazing, should be available at all times. The basis of feeding is to feed a high fibre diet, low in carbohydrates with a sufficient amount of quality protein, combined with the necessary micro-nutrients. Good results have been seen with the introduction of probiotics
- weight management is very important – you cannot expect a high level of performance from an obese horse
- the outer wall is not meant to be soft – its function is to protect against abrasion and, therefore, foot dressings designed to soften feet are not beneficial
- in terms of environment, compromise is often the only possible course of action.

IAEP=Institute of Applied Equine Podiatry
Source: La Pierre 2004 [168]

Box B.5 EPA views

EPA views:

- The horse's hoof can adapt to different environments and from an equine podiatrist's perspective, the two extremes:
 - a horse living on hard, rough ground with little food will move large distances (to find food) and needs hooves that grow fast (to match wear), with a thick wall and a tough sole (to counter the effects of the hard, rough ground)
 - a horse that lives on soft ground with plenty of food will move far less than a horse that is always searching for food and so only needs a slow growing hoof. A thin hoof wall will be beneficial as it will break away if the horse travels too few miles for wear to match growth.
- However, adaptation to living conditions takes time, domestic horses in the UK tend to be kept on soft surfaces (in a field and/or on bedding in a stable) but their owners want them to work on roads, stony tracks etc and the horses' hooves tend to be too weak to work on such terrain
- The traditional solution is to employ a farrier to apply shoes, which will provide protection from wear
- EPs consider that the hoof capsule comprises several independent structures and each is independently able to grow at different rates depending on the stimulus the hoof receives as the horse moves.

EP=equine podiatrist; EPA=Equine Podiatry Association
Source: The Equine Podiatry Association [289]

Box B.6 The EPA approach

The EPA approach involves three strands:

- identifying an appropriate conditioning programme, which will involve working the horse on different surfaces to provide the impact that will promote natural growth of foot structures (considered analogous to conditioning muscles)
- undertaking a trim to shape the foot to mimic the form it would acquire naturally on the terrain that the owner wants it to work on
- the owner taking an active role in the day-to-day care and conditioning of their horses' feet by, for example, providing a certain diet, carrying out an exercise programme and implementing an infection control regime.

EP=equine podiatrist; EPA=Equine Podiatry Association
Source: The Equine Podiatry Association [289]

12.3 Appendix C: Further details relating to research methods

12.3.1 Appendix C.1: Copy of approval letter



Veterinary Research Ethics Committee

Committee Chairman
Carol Gray
BVMS MA MRCVS

School of Veterinary Science
Leahurst Campus
Neston
South Wirral
CH64 7TE

T: 0151 795 6005
F: 0151 794 6003

E: vetseth@liverpool.ac.uk

Dear Rob

I am pleased to inform you that the Veterinary Research Ethics Committee has approved your application for ethical approval. Details of the approval can be found below.

Ref:	VREC293
PI:	R Christley
Title:	Equine barefoot care: practices, attitudes and beliefs
School:	School of Veterinary Science
Department:	Epidemiology and Population Health
First Reviewer:	Malcolm Bennett
Second Reviewer:	Sophia Latham
Date of initial review:	23.2.15
Date of Approval:	6.3.15

This approval applies for the duration of the research. If it is proposed to extend the duration of the study as specified in the application form, the Veterinary Research Ethics Committee should be notified. If it is proposed to make an amendment to the research, you should notify the Veterinary Research Ethics Committee by following the Notice of Amendment procedure outlined at http://www.liv.ac.uk/researchethics/application/forms_and_templates/.

If the named PI / Supervisor leaves the employment of the University during the course of this approval, the approval will lapse. Therefore please contact the RGO at ethics@liverpool.ac.uk in order to notify them of a change in PI / Supervisor.

All serious adverse events must be reported to the Committee within 24 hours of their occurrence, via the Research Governance Office (ethics@liv.ac.uk)

With best wishes

Carol Gray, Chair, Veterinary Research Ethics Committee

12.3.2 Appendix C.2: Interview invitation letter

Subject: Barefoot care: practices, attitudes and beliefs

Dear NAME

I have been given your name by xxxx/found your name on xxx website/ Your trimmer/farrier has kindly forwarded this letter to you on my behalf [*insert/delete as appropriate*] and I am writing to invite you to participate in a research study about the care of unshod equine feet. The study focuses on the care of the feet of unshod (i.e. barefoot) leisure and competition horses that are in work. The purpose of the study is to increase understanding of equine barefoot care. Findings from the study will help inform the design of appropriate research and training which will, in turn, lead to improvements in the health of horses' feet. The study will be reported in my PhD thesis and it is also intended to disseminate results through conference presentations and published articles.

The study includes carrying out interviews with horse owners, trimmers, farriers and others with an interest in the care of horses' feet. Your participation will involve an interview carried out at a time and place of your choice. It is anticipated that the interview will take about an hour (although it can be longer or shorter if you wish). The attached document provides some more details about the study and outlines the broad areas that I would like to explore with you during the interview. However, I can also discuss anything else that you think is relevant to this research.

Your views will form a very important part of this study and I very much hope that you will be able to participate. Feel free to contact me if you would like more information of if there is anything that you don't understand. I do hope that you will be willing to take part and, if so, please contact me by email to suggest some possible interview dates.

Best wishes
Sophie Beale
Research Associate/PhD Student

Email: s.beale@liv.ac.uk
Tel: 0151 794 5067

12.3.3 Appendix C.3: Trimmer and farrier information sheet

Equine Barefoot Care: Practices, Attitudes and Beliefs Farrier and Trimmer Information Sheet

We would like to invite you to take part in a research study. Before you decide to do so you need to understand why the research is being done and what it would involve for you. Please take time to read the following information carefully. Talk to others about the study if you wish.

What is the purpose of this study?

Historically, farriers have recommended that shod horses spend a period of time each year without shoes. However, over about the last 15 years there has been a growing interest in the practice of keeping working leisure and competition horses unshod. Many of these horses are receiving routine trimming from dedicated trimmers who have received no farriery training.

The purpose of this research is to increase understanding of equine barefoot care. This improved understanding will help people to work together to design appropriate research and deliver appropriate training which, in turn, will lead to improvements in the health of horses' feet. The objectives of this research are to

1. Describe equine barefoot care in England and Wales
2. Assess farriers' and trimmers' practices, attitudes and beliefs towards barefoot care
3. Assess barefoot horse owners' practices, attitudes and beliefs towards the care of their horses' feet
4. Document the beliefs, and assess the extent of influence, of other stakeholders (including vets, remedial farriers, physiotherapists, training providers and regulatory bodies)
5. Explore the cost consequences, to horse owners, of keeping their horses barefoot rather than shod.

Why have I been invited to take part?

We would like to obtain information on the practices, attitudes and beliefs of a wide range of farriers and trimmers who have been trained in barefoot trimming approaches. Either a colleague has suggested that you might be willing to participate in this research or your name has been identified through searches of the internet. It is anticipated that, in total, we will talk to between about 20 trimmers/farriers (as well as about 20 horse owners and 15 others with an interest in horses' feet).

Taking part in this research is entirely voluntary. If you have any queries or concerns that are not covered by this information sheet please do not hesitate to get in touch (see contact details below).

Summary of responses to key questions

- i) Q: What are the potential risks/disadvantages of taking part?
A: We do not envisage any risks or disadvantages to you of taking part.
- ii) Q: What are the potential advantages/benefits of taking part?

A: There are unlikely to be any direct benefits to you of taking part but your input will help to increase understanding of barefoot care. This will help people to design appropriate research and delivering appropriate training; the outcomes from which will lead to improvements in the health of horses' feet.

iii) Q: Will my taking part be confidential?

A: Your participation is completely confidential

iv) Q: What will happen to the results of this research?

A: Study updates will be published on the University of Liverpool Horse Health Study website (<http://www.liv.ac.uk/equine/owners/horsehealthstudy/>). Full results will be included in a PhD thesis and it is also intended to disseminate key results through conference presentations and published articles. Data will be kept for up to 10 years.

v) Q: What will happen to me if I don't want to carry on with this study?

A: You can withdraw from the study at any time, without explanation. Information collected up to the period of withdrawal may be used, if you are happy for this to be done. Otherwise you may request that information collected from you is destroyed and no further use is made of it.

What will happen if I take part?

If you agree to take part you will be contacted via telephone or email to find out when it would be convenient to talk to you. Your interview will either be carried out face-to-face or via telephone. It will be audio taped so that all the points you make can be fully captured. Interviews are anticipated to last between 30 minutes and an hour. The areas to be covered during the interview are:

- Background details about you
- Reason(s) why you decided to become a trimmer and your training
- How the service you provide differs from that provided by a farrier
- The advice you would give to someone considering keeping their horse barefoot
- 'Typical' clients
- The hoof care specific products that you recommend
- Views on changes or new practices that might lead to improvements in equine foot care
- Any other points you wish to make

Any information you provide will be treated in strictest confidence. Your views and experiences form an important part of this research.

What if I am unhappy or if there is a problem?

If you are unhappy, or if there is a problem, please feel free to let us know by contacting Dr Robert Christley by email (robc@liverpool.ac.uk) or telephone (0151 794 6170) and he will try to help. If you remain unhappy or have a complaint which you feel he cannot resolve then you should contact the Research Governance Officer

on 0151 794 8290 (ethics@liv.ac.uk). When contacting the Research Governance Officer, please provide details of the name or description of the study (so that it can be identified), the researchers involved, and the details of the complaint you wish to make.

Who has reviewed the study?

To ensure that your safety, rights, wellbeing and dignity are protected the methods for this research have been looked at by an independent group of people called a Research Ethics Committee. This study has been reviewed by University of Liverpool Veterinary School Research Ethics Committee.

Next steps

Please take time to consider whether you want to be involved in this research. The decision to participate is your own and you should feel under no pressure to do so. If you are happy to be involved please complete the accompanying consent form and return it to s.beale@liverpool.ac.uk within a month of receiving this request.

Thank you very much for considering this information.

Sophie Beale
Research Associate and PhD student, University of Liverpool

March 2015

12.3.4 Appendix C.4: Horse owner information sheet

Equine Barefoot Care: Practices, Attitudes and Beliefs *Horse Owner Information Sheet*

We would like to invite you to take part in a research study. Before you decide, you need to understand why the research is being done and what it would involve for you. Please take time to read the following information carefully. Talk to others about the study if you wish.

What is the purpose of this study?

Historically, farriers have always recommended that shod horses should spend a period of time each year without shoes. However, over about the last 15 years there has been a growing interest in the practice of keeping working leisure and competition horses unshod. Many of these horses are receiving routine trimming from dedicated trimmers who have received no farriery training.

The purpose of this research is to increase understanding of equine barefoot care. This improved understanding will help people to work together to designing appropriate research and deliver appropriate training which, in turn, will lead to improvements in the health of horses' feet. The objectives of this research are to

- Describe equine barefoot care in England and Wales
- Assess farriers' and trimmers' practices, attitudes and beliefs towards barefoot care
- Assess barefoot horse owners' practices, attitudes and beliefs towards the care of their horses' feet
- Explore the beliefs, and assess the extent of influence, of other stakeholders (including vets, remedial farriers, physiotherapists, training providers and regulatory bodies)
- Explore the cost consequences, to horse owners, of keeping their horse barefoot rather than shod

Why have I been invited to take part?

We would like to obtain information on the practices, attitudes and beliefs of as a wide range of barefoot horse owners as possible. To help achieve this we have asked trimmers to approach, on our behalf, a number of their clients whose views and experiences they feel would be of particular interest to this project. It is anticipated that, in total, we will talk to about 20 horse owners (as well as about 20 trimmers/farriers and 15 others with an interest in horses' feet).

Taking part in this research is entirely voluntary. If you have any queries or concerns that are not covered by this information sheet please do not hesitate to get in touch (see contact details below).

Summary of responses to key questions

- i) Q: What are the potential risks/disadvantages of taking part?
A: We do not envisage any risks or disadvantages to you of taking part.
- ii) Q: What are the potential advantages/benefits of taking part?

A: There are unlikely to be any direct benefits to you of taking part, but your input will help to increase understanding of barefoot care. This increased understanding will help people to work together to design appropriate research and delivering appropriate training; the outcomes from which will lead to improvements in the health of horses' feet.

iii) Q: Will my taking part be confidential?

A: Your participation is completely confidential

iv) Q: What will happen to the results of this research?

A: Study updates will be published on the University of Liverpool Horse Health Study website (<http://www.liv.ac.uk/equine/owners/horsehealthstudy/>). Full results will be included in a PhD thesis and it is also intended to disseminate key results through conference presentations and published articles. Data will be kept for up to 10 years.

v) Q: What will happen to me if I don't want to carry on with this study?

A: You can withdraw from the study at any time, without explanation. Information collected up to the period of withdrawal may be used if you are happy for this to be done. Otherwise, you may request that the information is destroyed and no further use is made of it.

What will happen if I take part?

If you agree to take part you will be contacted via telephone or email to find out when it would be convenient to talk to you. Your interview will either be carried out face-to-face or via telephone. It will be audio taped so that all the points you make can be fully captured. Interviews are anticipated to last between 30 minutes and an hour. The areas to be covered during the interview are:

- Background details about you and your horses
- Reason(s) why you decided to keep your horse barefoot
- The transition from shod to barefoot and current routine care practices
- The hoof care specific products that you use
- Advice you would give to someone considering keeping their horse barefoot
- Views on changes or new practices that might lead to improvements in equine foot care
- Any other points you wish to make

Any information you provide will be treated in strictest confidence. Your views and experiences form an important part of this research.

What if I am unhappy or if there is a problem?

If you are unhappy, or if there is a problem, please feel free to let us know by contacting [Sophie Beale by email (s.beale@liverpool.ac.uk) or telephone (0151 794 5067)] and she will try to help. If you remain unhappy or have a complaint which you feel she cannot resolve then you should contact the Research Governance Officer on 0151 794 8290 (ethics@liv.ac.uk). When contacting the Research Governance Officer, please provide details of the name or description of the study (so that it can be identified), the researchers involved, and the details of the complaint you wish to make.

Who has reviewed the study?

To ensure that your safety, rights, wellbeing and dignity are protected the methods for this research have been looked at by an independent group of people called a Research Ethics Committee. This study has been reviewed by University of Liverpool Veterinary School Research Ethics Committee.

Next steps

Please take time to consider whether you want to be included in this research. The decision to participate is your own and you should feel under no pressure to do so. If you are happy to be involved please complete the accompanying consent form and return it to s.beale@liverpool.ac.uk within a month of receiving this request.

Thank you very much for considering this information.

Sophie Beale
Research Associate and PhD student, University of Liverpool

March 2015

12.3.5 Appendix C.5: Consent form

**CONSENT FORM**

Title of Research Project:

Equine barefoot care: practices, attitudes and beliefs

Researcher(s):

**Dr Robert Christley, Sophie Beale,
Professor Elizabeth Perkins,
Professor Debra Archer**

**Please
initial
box**

1. I confirm that I have read and have understood the information sheet dated January 2015 for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my rights being affected.
3. I understand that, under the Data Protection Act, I can at any time ask for access to the information I provide and I can also request the destruction of that information if I wish.
4. I agree to take part in the above study.

Participant Name

Date

Signature

Participant Name

Date

Signature

Supervisor contact details:

Dr Robert Christley, Dept. of Epidemiology & Population Health, Leahurst Campus, University of Liverpool, Neston, Wirral, CH64 7TE; telephone: 0151 794 6170; email: robc@liverpool.ac.uk

12.3.6 Appendix C.6: Interview guide

INTERVIEW GUIDE

1 Introduction (trimmers and horse owners)

I'd like to start by thanking you for taking the time to talk to me today about barefoot care. The interview should take about an hour but may take more or less time depending on how much you want to say. I will be taking some notes during the session but I can't possibly write fast enough to get everything down so I will also be taping the session to make sure that I don't miss anything you say. Because we're on tape, please be sure to speak up so that nothing you say is missed.

I want to reassure you that all your responses will be kept confidential. This means that the information you provide will only be shared with members of the research team and we will ensure that any information included in the project report does not identify you. Remember, you don't have to talk about anything you don't want to talk about and you may end the interview at any time.

Do you have any questions about anything that I have said?

If a completed consent form has been received in advance of the interview check that the interviewee is still willing to participate. If not, then go through the consent form and obtain verbal consent.

2 Trimmer questions

Background details about you

Please tell me a bit about yourself - your horses and barefoot care

- Your background with horses
- Length of time with an interest in barefoot care

Reason(s) why you decided to become a trimmer and your training

Please explain what it was that prompted you to become a trimmer?

- Can you tell me about your training?
- How did you choose a training provider?
- What did you think of that initial training?
- Have you carried out any subsequent training?

How the service you provide differs from that provided by a farrier

- Please describe a typical client visit. How does a visit to a new client differ from one to an established client?

- Are there any ways in which your service differs/has changed from that provided by a farrier? How and why?
- Geographical range?

The advice you would give to someone considering keeping their horse barefoot

- What advice would you give someone considering keeping their horse barefoot? Why?
- What about competition horses?

'Typical' clients

- Describe a 'typical' client. Why?
- What, do you think, makes your clients different from those employing a farrier?

The hoof care specific products that you recommend

- What sort of recommendations do you make to owners? [Principles and products]

Views on changes or new practices that might lead to improvements in equine foot care

- Can you suggest any changes or new practices, in terms of things like regulation, training, research/evidence that might lead to improvements in barefoot care? Why?

One more thing

- I also want to talk to owners of barefoot horses. Can you think of anyone who you think it would be a good idea for me to speak to? Would you mind contacting them on my behalf to see if they would be happy to be involved?

3 Horse owner questions

Background details about you and your horses

Please tell me a bit about yourself - your horses and barefoot care

- Your background with horses (note horses' names)
- How long has your horse been barefoot?

Reason(s) why you decided to keep your horse(s) barefoot

- What prompted you to decide to keep your horse barefoot? Multiple reasons?
- How long has your horse been barefoot?
- Are all your horses barefoot?

The transition from shod to barefoot and current routine care practices

- Was the process of changing from keeping your horse shod to keeping your horse barefoot straightforward, or did you have to overcome any problems? Approximate length of transition period?
- Now that your horse is barefoot, do you care for him/her any differently than when he/she was shod? Diet? Exercise? Where kept?
- Please describe a routine day in the life of your horse. Do you compete?

The hoof care specific products that you use

- Are there any products that you use now that you didn't use when your horse was shod? Why? Why do you like this product?

Advice you would give to someone considering keeping their horse barefoot.

- What advice would you give someone considering keeping their horse barefoot? Why?

4 Concluding remarks (trimmers and horse owners)

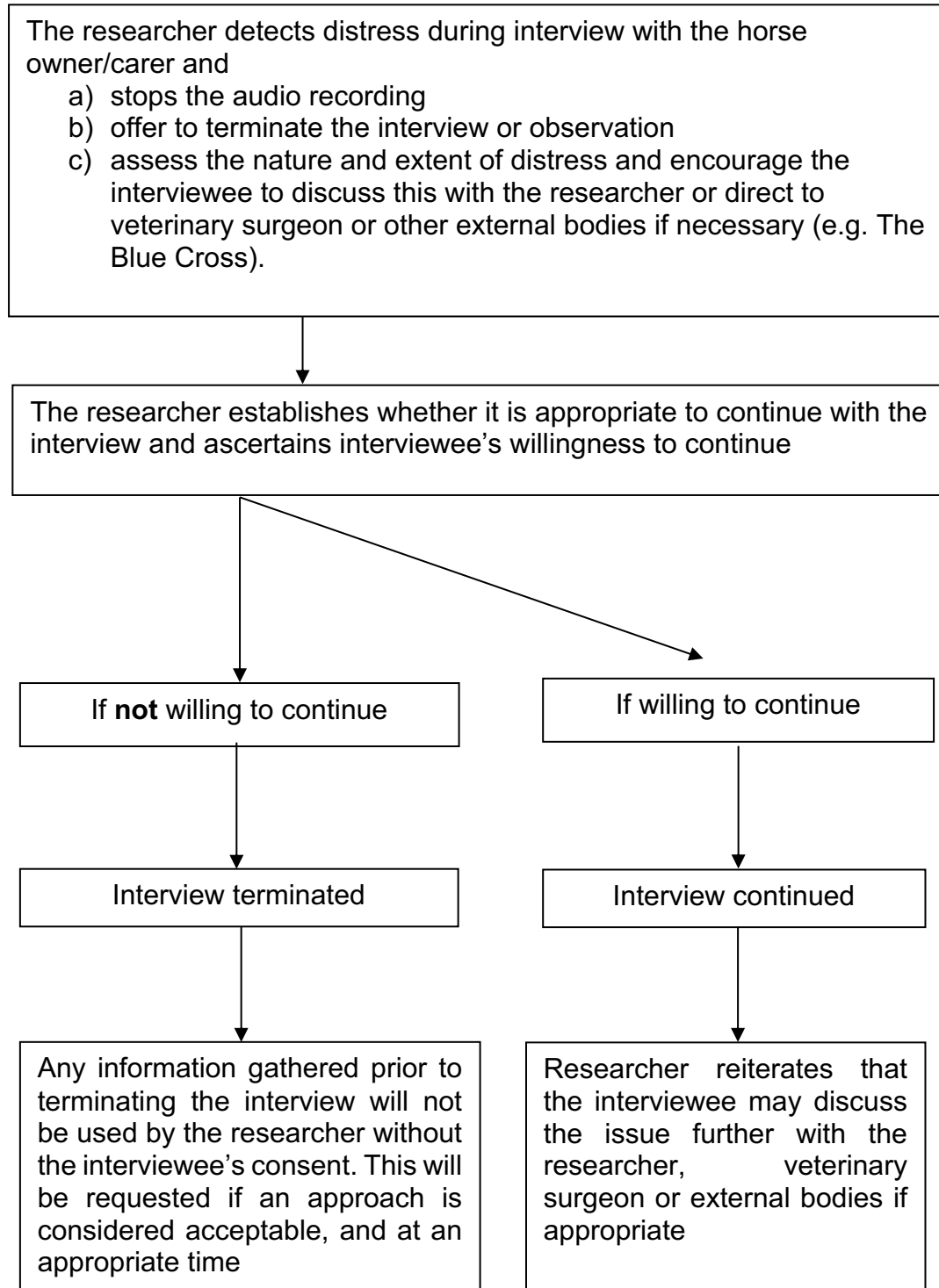
Any other points

- Is there anything else you would like to add?
- Do you have any questions for me?

Thank you for taking the time to speak to me – I couldn't do this without you.

12.3.7 Appendix C.7: Dealing with distress flowchart

This flow chart shows the proposed procedure for dealing with any distress arising during the interviews.



12.3.8 Appendix C.8: Example of initial open coding on paper

referred
* ↑ influence of (-ve) advice + circumstances

Solve Problem lame?

radical soln not philosophical

Necessity
Respondent Erm... I had a horse with sore feet erm... it was as simple as that really.

Exhausted conventional?
Erm... I had been through lots of different shapes of shoes. I had a very good farrier but we weren't getting anywhere - he was still intermittently lame and the incidents of lameness were getting more frequent than the incidents of soundness. Nobody seemed to know what was wrong. I was just told he was a thoroughbred and he had crap feet. Erm... and the vet unfortunately just said 'Look, he's getting on in years, maybe you should just put him to sleep,' ... when the rest of his body was in really good condition. So, I really didn't want to do that. Erm... I had never even considered bare foot because it was 11 years ago, when barefoot wasn't really erm... much known about, but I had a friend who had taken the shoes off her horse because he was suffering from pedalostitis and I knew how much it had helped that horse, and thought right, well in that case maybe I should try erm... and so I did a 5 day course with KC LaPierre. I got a friendly local farrier student, a farrier's apprentice to take the shoes off for me, without his boss knowing... .. and the journey began. (Unfortunately) it was very much through trial and error because in those days there wasn't any really any support. I didn't have any local erm... footcare provider that I could call upon, so I was very much on my own. My vet thought I was nuts and wasn't sort of prepared to help me and erm... obviously the farrier also thought I was nuts because he was... my horse was a thoroughbred with very bad feet, so taking his shoes off was the worst thing possible. Erm... and it took me probably 3 years to get him completely sound erm... and even then he always needed boots because he had such thin soles - you could almost see the pedal bones through the soles. Erm... but he managed to live on for another 5 or 6 years with comparative soundness, and that's how I got into barefoot really.

Not anti-farrier
Problem getting worse
Blame attributed to genetics
Unhappy with veterinary advice
Soln born out of necessity
Influenced by seeing - visual
Change over time

time ongoing
sense of hopelessness? Desperation
Final solution seemed too extreme / drastic / premature
not ready to give up
influence of social group
Same or different from other's horse?
started with little training
perception of being naughty - going against convention
things have changed
isolated
abandoned
not an instant fix
not 100% sound again
outcome contradicts orthodox / vet opinion

Genetics
Visual assessment of hoof attribute

trial + error
necessity rather than choice of being irresponsible
-ve view of orthodoxy

*** crazy, foolish, strange or mad, insane, deranged or ?**

12.3.9 Appendix C.9: Early theoretical models

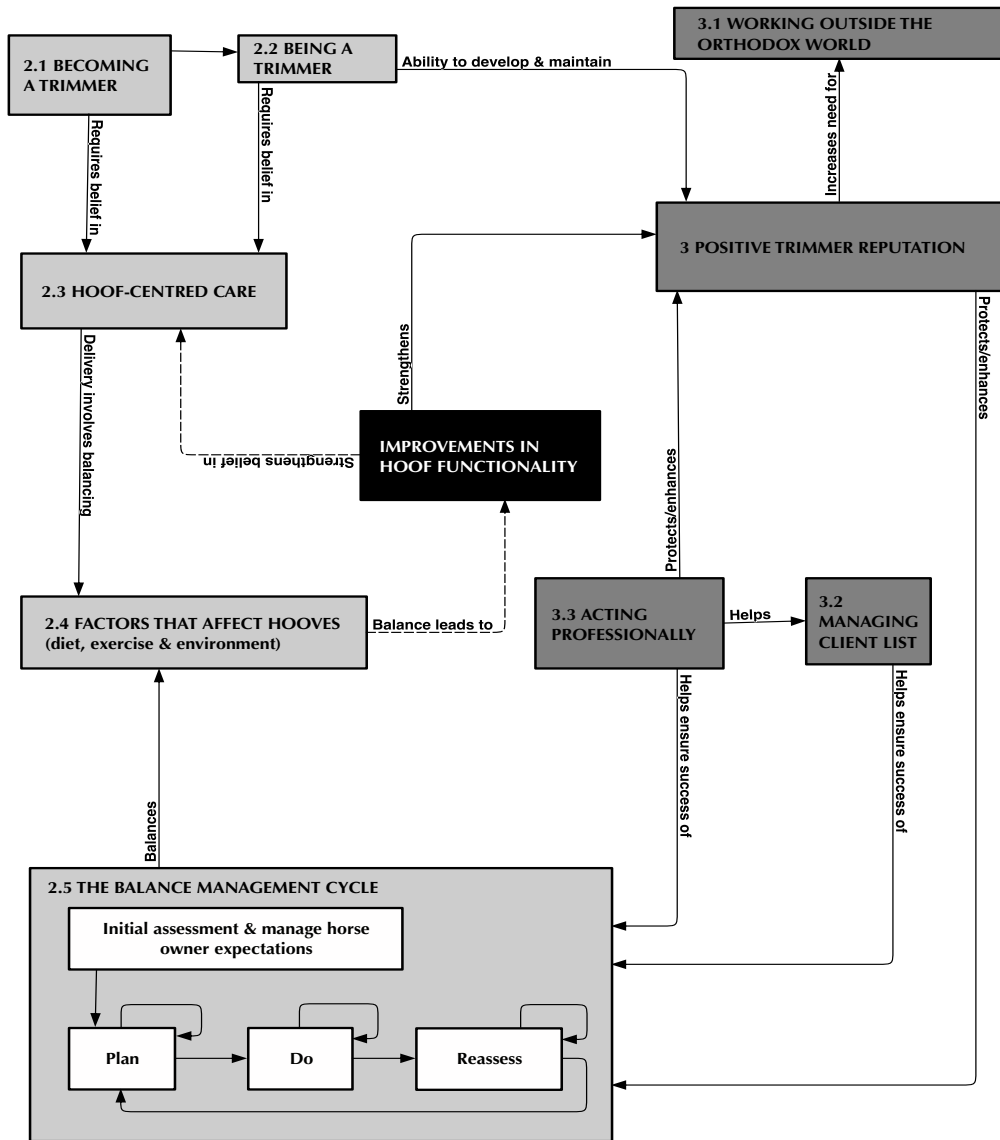


Figure C.1 Early trimmer theoretical model

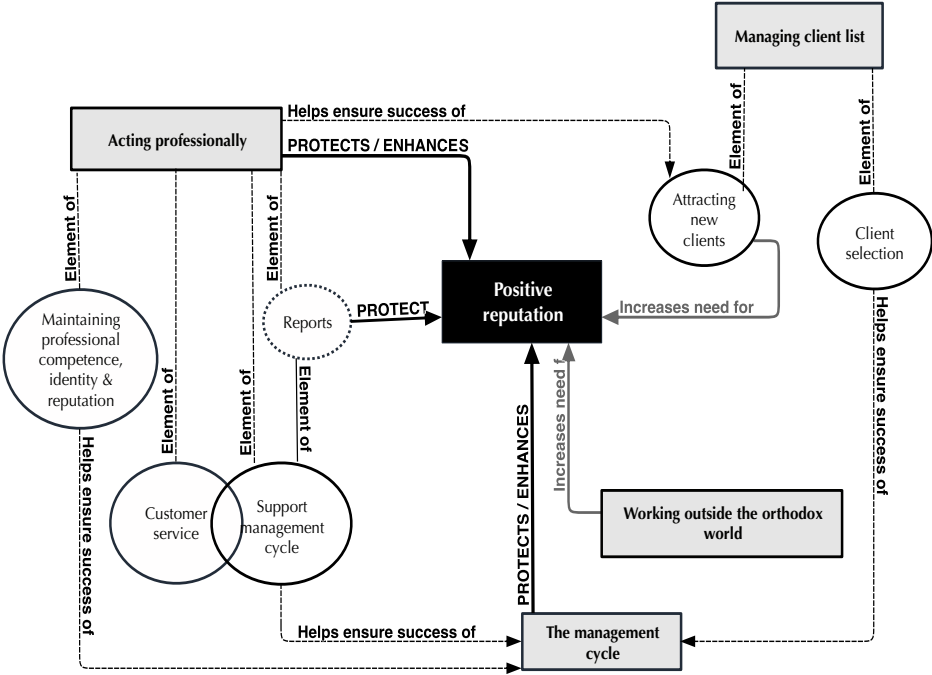


Figure C.2 Early reputation theoretical model

12.3.10 Appendix C.10: Trimmer questionnaire**12.3.10.1 Copy of trimmer questionnaire****Barefoot trimmers****Introduction**

This survey is being carried out as part of a study about keeping horses barefoot (also referred to as shoeless, unshod, etc). The questions have been designed to collect information about the characteristics and day to day activities of people who receive money for trimming horses' hooves. These people are known by different names, including trimmers, equine podiatrists and farriers. For simplicity, the terms 'barefoot' and 'trimmer' are used throughout the survey.

The information that you provide is very important as it will help vets, researchers and other stakeholders to understand more about how, and why, people keep horses barefoot. This knowledge will lead to better communication between these groups, and improved communication will help to improve equine welfare. The study will be reported in my PhD thesis and the plan is to also present results at conferences and in published articles.

It will take about 25 minutes to complete the survey. It is possible to take a break and return to complete the survey later. However, after a period of two weeks you will no longer be able to access your partially completed survey.

Your responses will remain strictly confidential and will only be used for research purposes. If you are unhappy, or if there is a problem, please feel free to let me know and I will try to help. If you remain unhappy, or have a complaint which you feel you cannot come to me with, then you should contact the Research Ethics and Integrity Office at ethics@liv.ac.uk. When contacting the Research Ethics and Integrity Office, please provide details of the name or description of the study (so that it can be identified), the researcher(s) involved, and the details of the complaint you wish to make.

Thank you very much in advance

Sophie Beale
Email: barefootsurvey@liverpool.ac.uk

If you are ready to complete this survey, please click 'Yes' to begin

- Yes
 No



Barefoot trimmers**1. Training**

Which organisation(s) provided the training you undertook before starting your trimming business?

Please check all that apply

- Association for the Advancement of Natural Horse Care Practices
 Equine Podiatry Training
 Equine Sciences Academy
 Institute for the Study of Natural Horse Care Practices
 Institute of Applied Equine Podiatry
 Liberated Horsemanship
 The School of Barehoof Strategy
 UK National Hoof Care Professionals
 Worshipful Company of Farriers
 None
 Other, please specify

During the last 12 months, have you undertaken any training?*

- Yes
 No

What type of training did you undertake?

Please provide information for all types of training (maximum 200 characters for each box)

	Training provider/Conference organiser	Number of hours of training
Technical/practical skills directly relating to equine foot care	<input type="text"/>	<input type="text"/>
Technical/practical skills indirectly relating to equine foot care	<input type="text"/>	<input type="text"/>
Business-related training	<input type="text"/>	<input type="text"/>
Conference attendance	<input type="text"/>	<input type="text"/>
Other	<input type="text"/>	<input type="text"/>

**Barefoot trimmers****2. Your business**

What is the legal status of your business?

- Sole trader
- Private limited company
- Partnership
- Other, please specify

Does your trimming business have any of the following?

Please click on all that apply

- Dedicated website
- Your membership/contact details listed on a trimming organisation website
- Dedicated Facebook page
- Twitter account
- Other dedicated social media, please specify

How long have you been earning money by trimming?

Years

Months

Approximately how many equine clients do you have?

Owners

Horses

Are you planning to take on any more equine clients?*

- Yes
- No

What is the maximum number of equine clients that you can manage?

Do you charge to cover the cost of travel to your equine clients' homes?*

- Yes
- No

Please describe your travel charges

Maximum 1000 characters (approximately 140 words)

Please list all the trimming-related services that you offer and the amount that you charge for each service (or provide a link to a website where I can find these details)

Maximum 1000 characters (approximately 140 words)

Do you sell any of the following products?

	Never	Rarely	Sometimes	Often	Always
Pads	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Boots	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Products to fight infection	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please use the space below to provide any information about selling products (for example, what you sell, why you sell it, issues around obtaining stock, why you don't sell any products)
 Maximum 1000 characters (approximately 140 words)



Barefoot trimmers

3. New/potential clients

During the initial stages of the trimmer-owner relationship, do you assess the owner's:
 Please click on all that apply

	Never	Rarely	Sometimes	Often	Always
Expectations about keeping their horse barefoot	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Willingness to be very involved in all aspects of the care of their horse	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to implement your husbandry advice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to implement your exercise advice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Financial resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vet is supportive of your involvement (if applicable)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other than points covered in the previous question, before taking on a new equine client, what questions do you routinely ask the owner?

Maximum 2000 characters (approximately 300 words)

Have you ever refused to take on a new equine client?*

Yes

No

Which of the following reason(s) best explain why you did not take on a new equine client?

Please click on all that apply

- The owner's expectations about keeping a horse barefoot were unrealistic
- The owner was not willing to be involved in all aspects of their horse's care
- The owner was not going to be able to implement my husbandry advice
- The owner was not going to be able to implement my exercise advice
- I was worried that I would not get paid
- It would have been too far for me to travel
- I did not like the way the owner handled the horse
- I considered that the horse's behaviour was dangerous
- The vet did not support my involvement with the horse
- I did not have the capacity to take on any more clients
- Other, please specify



Barefoot trimmers

4. Existing clients

How many of your owners, would you say:

Please click on all that apply

	None	1-25%	26-50%	51-75%	76-100%
Consider their horses to be pets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Consider their horses to be working animals (e.g., for competition, financial gain)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Are professionally involved with horses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Keep horses as a hobby/passion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Have you ever chosen to stop working for an existing owner?*

- Yes
- No

Which of the following reason(s) best explain why you chose to stop working for an owner(s)?

Please click on all reasons that apply

- The owner's expectations about keeping a horse barefoot were unrealistic
- The owner was not willing to be involved in all aspects of their horse's care
- The owner was not implementing husbandry advice that I had provided
- The owner was not implementing exercise advice that I had provided
- I had problems obtaining payment from the owner
- It became too far for me to travel

- I did not like the way the owner handled the horse
- I considered that the horse's behaviour was dangerous
- The vet did not support my involvement with the horse
- The owner was making unreasonable demands
- The owner wasn't responding to my phone calls, texts or emails
- Other, please specify



Barefoot trimmers

5. About being a trimmer

How far do you travel to your equine clients' homes?

	Never	Rarely	Sometimes	Often	Always
Up to 5 miles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
>5 to 10 miles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
>10 to 20 miles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
>20 to 30 miles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
>30 to 50 miles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
>50 to 100 miles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
>100 miles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

During an average week, on how many days do you trim horses' hooves?

On a day when you trim horses' hooves, on average, how many horses will have had their hooves trimmed by you on that day?

How long, on average, does it take you to trim one horse's hooves (including any associated tasks, e.g., taking photos, discussions with owner, completion of on-site paperwork)

Minutes

'First trim'	<input type="text"/>
'Maintenance trim'	<input type="text"/>
'Rehabilitation case'	<input type="text"/>

During a trimming visit, how usual is it for you to do the following:

	Never	Rarely	Sometimes	Often	Always
Ask the owner to provide details about any health issues that have arisen since your last visit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Ask the owner for information about any husbandry or exercise changes since your last visit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Check the general condition of the horse (weight, coat, etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Check for digital pulses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Watch the horse walk before trimming	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Watch the horse trot before trimming	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Take video footage of the horse moving	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Take photographs of the horse's feet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use hoof-testers before trimming	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use hoof-testers during a trim	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use hoof-testers after a trim	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Watch the horse walk after the trim	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Watch the horse trot after the trim	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tidy up the trimming area when you finish trimming	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leave the owner with a written report	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fix your next appointment before leaving the yard	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

In general, how usual is it for your owners to:

	Never	Rarely	Sometimes	Often	Always
Contact you to ask for advice between scheduled trimming visits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Follow the husbandry advice you give them	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Follow the exercise advice you give them	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Take an interest in what you do during a visit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Barefoot trimmers

6.1 Your views

When formulating a barefoot horse's diet, to what extent do you agree or disagree with the following statements?

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Diet should have a low (or no) grain content	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Diet should have a low (or no) sugar content	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Diet should not include any synthetic ingredients	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Horse's weight is an important consideration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is important to feed ad-lib forage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Forage analysis is important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Soil analysis is important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Thinking about barefoot horses, to what extent do you agree or disagree with the following statements?

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Poor nutrition leads to disruption of the white line	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Metabolic issues can cause 'footiness'	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A flush of grass can lead to 'footiness'	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is a link between diet and flat feet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is a link between diet and pock marked soles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Thinking about the maximum length and width of the weight bearing (solar) aspect of the fore-hooves of horses, to what extent do you agree with the following statements?

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Length should be greater than width	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Length should be less than width	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The ratio of length to width varies by breed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The ratio of length to width varies by individual	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fore-hooves tend to be shorter and wider than hind-hooves	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Thinking about barefoot horses, to what extent do you agree or disagree with the following statements?

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Providing the correct level of stimulus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

(pressure the hoof is subjected to from movement/surfaces) will improve hoof quality

Horses' hooves need to be 'conditioned' to work on different surfaces

In an ideal world, all my clients' horses would live on a permanent 'track system'

With all other factors being equal, to what extent do you agree with the following statements?

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
There are seasonal difference in hoof growth rate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The hooves of heavier horses grow faster than those of lighter horses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is a relationship between breed and hoof growth rate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feeding a biotin supplement increases hoof growth rate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please use this space to provide details about factors that you think have a major influence on hoof growth rate

Maximum 2000 characters (approximately 300 words)

How frequently do you recommend the following products for treating hoof/foot infections?

	Never	Rarely	Sometimes	Often	Always
Athlete's foot cream	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Artimud	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Caneston	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cider vinegar	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Field paste	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Honey	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Honeyheal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hoof-stuff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Household bleach	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hydrogen peroxide	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Milton	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Silvetrasol	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sole cleanse	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stronghorn	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sudocrem	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tea tree products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Thrushender	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vabour rub	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

In what proportion of cases, do you think, exposure to the products listed below has a negative effect on barefoot horses hooves?

	None	1-25%	26-50%	51-75%	100%	No opinion
Worming products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pesticides	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Herbicides	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fertiliser spray	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vaccinations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Do you think we should be aiming for a world in which all horses are barefoot?

- Yes
 No

Please explain why you think we should/shouldn't be aiming for a world in which all horses are barefoot

Maximum 2000 characters (approximately 300 words)

Have you ever recommended that one of your equine clients should be shod?*

- Yes
 No

Please give one example of why you recommended that one of your equine clients should be shod

Maximum 2000 characters (300 words)

Have you ever recommended that one of your equine clients should wear boots?

- Yes
 No

What, if any, are the advantages of boots?

Maximum 2000 characters (approximately 300 words)

What, if any, are the disadvantages of boots?
Maximum 2000 characters (approximately 300 words)



Barefoot trimmers

6.2 More views

What three things do you like most about being a barefoot trimmer?
Maximum 2000 characters (approximately 300 words)

What three things do you like least about being a barefoot trimmer?
Maximum 2000 characters (approximately 300 words)

How would you like to see your trimming business develop over the next 5 years?
Maximum 2000 characters (approximately 300 words)

What advice would you give someone considering becoming a barefoot trimmer?
Maximum 2000 characters (approximately 300 words)



Barefoot trimmers

7. Demographic information

This information is being collected to allow the characteristics of trimmers to be compared with those of the whole horse owning community.

Gender

- Female
 Male

Age

- Under 16 years
 16 to 20 years
 21 to 30 years
 31 to 40 years
 41 to 50 years
 51 to 60 years
 61 to 70 years
 71 to 80 years
 81 to 90 years
 91 years and over

Where, in the UK, do you live?

- North East England
 North West England
 Yorkshire and the Humber
 East Midlands
 West Midlands
 East of England
 London
 South East England
 South West England
 Scotland
 Northern Ireland
 Wales

What is your highest general educational qualification?

- GCSE
 'A' Level
 BTEC/diploma
 Undergraduate degree
 Post-graduate qualification
 Vocational qualification
 Other, please specify

If you have passed any British Horse Society (BHS) Stage exams or hold any National Vocational Qualification (NVQ) horse care test qualifications, what is the highest qualification of this type that you hold?

Maximum 1000 character (approximately 140 words)



Barefoot trimmers

8. Any other information

Is there anything else you would like to tell us about being a barefoot trimmer?

Maximum 2000 characters (approximately 300 words)

12.3.11 Appendix C.11: Horse owner questionnaire**Barefoot horse owners****Introduction**

This survey is being carried out as part of a wider study about keeping horses barefoot (also referred to as shoeless, unshod, etc). For simplicity, the term barefoot is used throughout the questionnaire.

The information that you provide is very important as it will help vets, researchers and other stakeholders to understand more about how, and why, people keep horses barefoot. This knowledge will lead to better communication between these groups, and improved communication will help to improve equine welfare. The study will be reported in my PhD thesis and the plan is to also present results at conferences and in published articles.

It will take about 25 minutes to complete the survey. It is possible to take a break and return to complete the survey later. However, after a period of two weeks you will no longer be able to access your partially completed survey.

If you own more than one barefoot horse, then your answers to many of the questions might differ depending on which of your horses you are thinking about. When answering these types of questions, please think about your barefoot horse whose name is at the top of an alphabetically ordered list of the names of all your horses.

Your responses will remain strictly confidential and will only be used for research purposes. If you are unhappy, or if there is a problem, please feel free to let me know and I will try to help. If you remain unhappy, or have a complaint which you feel you cannot come to me with, then you should contact the Research Ethics and Integrity Office at ethics@liv.ac.uk. When contacting the Research Ethics and Integrity Office, please provide details of the name or description of the study (so that it can be identified), the researcher(s) involved, and the details of the complaint you wish to make.

Thank you very much in advance

Sophie Beale
Email: barefootsurveys@liverpool.ac.uk

Where did you first hear about this survey?

- Barefoot approach to whole horse health Facebook page
- Barefoot for working horses Facebook page
- The right to trim Facebook page
- Via my trimmer
- Other



Barefoot horse owners

Your horse(s)

How many horses do you own, loan or share (i.e., have financial responsibility for decisions relating to care)?

If any of your horses are currently shod, please explain (briefly) why you do not keep them barefoot

Maximum 1000 characters (approximately 140 words)



Barefoot horse owners

About your barefoot horse

If you own more than one barefoot horse, then when answering the questions in this section, please think about your barefoot horse whose name is at the top of an alphabetically ordered list of the names of all your horses

Age

- 0 to 5 years
- 6 to 10 years
- 11 to 15 years
- 16 to 20 years
- 21 to 25 years
- 26 years or over

Sex

- Mare
- Gelding
- Stallion/entire

Size

- 12hh or less (122cm or less)
- 12.1hh to 13hh (123cm to 132cm)
- 13.1hh to 14hh (133cm to 142cm)
- 14.1hh to 15hh (143cm to 152cm)
- 15.1hh to 16hh (153cm to 162cm)
- 16.1hh to 17hh (163cm to 172cm)
- 17hh or more (173cm or more)

Breed

- Arab
- Arab cross
- Cob/cob cross
- Irish draught
- Irish draught cross
- Native breed
- Native breed cross
- Not known
- Sports horse
- Thoroughbred
- Thoroughbred cross
- Warmblood
- Warmblood cross
- Welsh
- Welsh cross
- Other, please specify



Barefoot horse owners

Going barefoot

If you own more than one barefoot horse, then when answering the questions in this section, please think about your barefoot horse whose name is at the top of an alphabetically ordered list of the names of all your horses

During the time you have owned your horse has s/he been

- Barefoot for the whole time
 In and out of shoes
 Mainly barefoot but with a short period shod
 Previously shod but now permanently barefoot
 Other

Please use this space to provide details about the period(s) of time your horse has been barefoot/shod

Maximum 1000 characters (approximately 140 words)

If applicable, how long has it been since your horse was last shod?

Years

Months

Which statements best represent why you decided to keep your horse barefoot?

Please click on all that apply

- I had difficulty finding a farrier who would shoe my horse
 I didn't like how my farrier treated my horse
 I didn't like how my farrier treated me
 I didn't like how my farrier shod my horse
 My horse had problems with her/his hooves/feet that had not been fixed despite input from my farrier and/or vet
 I thought a trimmer would be better at trimming unshod hooves than a farrier
 The trimmer was reputed to be good at handling horses
 I believe a natural approach to hoof care is best
 I heard how successful a barefoot approach to hoof care was for others and wondered if it would work for my horse
 I wanted to save money
 Other, please specify

Was your horse lame when you made the decision to keep her/him barefoot?*

- Yes
 No

At the point when you decided to keep your horse barefoot, how long had s/he been lame?

- Less than 3 months
 Between 3 and 6 months
 Between 7 and 12 months
 More than a year

At the point when you decided to keep your horse barefoot, did s/he suffer from any of the following hoof/foot problems?

Please click on all that apply

- Laminitis
- Navicular syndrome/caudal heel pain
- Poor hoof quality
- Other, please specify

Can you think of any circumstances that might lead you to have your horse shod?*

- Yes
- No

Please give an example of what might lead to you have your horse shod

Maximum 1000 characters (approximately 140 words)



Barefoot horse owners

Trimmers and trimming

If you own more than one barefoot horse, then when answering the questions in this section, please think about your barefoot horse whose name is at the top of an alphabetically ordered list of the names of all your horses

Do you ever trim your own horse's hooves?*

- I am the only person who trims my horse's hooves
- Sometimes
- Never

Do you/the person who trims your horse's hooves, hold trimming-related qualifications awarded by any of the following organisations?

Please click on all that apply

- Equine Podiatry Training
- Equine Sciences Academy
- Institute for the Study of Natural Horse Care Practices
- Institute of Applied Equine Podiatry
- Liberated Horsemanship
- The School of Barehoof Strategy
- UK National Hoof Care Professionals
- Worshipful Company of Farriers
- None

- Don't know
- Other, please specify

How did you find the trimmer that you currently employ?

- Asked a friend
- Saw an advertisement in a saddlery/tack/feed store
- Via an internet forum or Facebook group
- Trimmer website
- Other, please specify

In general, how often do you, or your trimmer, trim your horse's hooves?

- More frequently than every 4 weeks
- Every 5 to 6 weeks
- Every 7 to 8 weeks
- Every 9 to 12 weeks
- Less frequently than every 12 weeks
- No set interval
- Other, please specify

Are you present during the appointment with your trimmer?

- Always
- Generally
- Rarely
- Never

On average, how long does it take for you or your trimmer to trim your horse's hooves (and carry out associated tasks)?

Please give time in minutes

On a scale of 1 to 10 (where 10 is the most positive), how would you rate the service provided by your trimmer?

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

In the previous question you rated your trimmer on a scale of 1-10. Please explain why you chose this rating for your trimmer

Maximum 1000 characters (approximately 140 words)

--



Barefoot horse owners

Feeding

If you own more than one barefoot horse, then when answering the questions in this section, please think about your barefoot horse whose name is at the top of an alphabetically ordered list of the names of all your horses

Do you (or your trimmer) regularly monitor your horse's weight?

- Yes
 No

What type(s) of hard feed (concentrates) do you currently feed your horse?

Examples of 'Brand' include Spillers and Thunderbrook. Examples of 'Product Name' include Happy Hoof, Pro Performance Balancer and Meadow Nuts

Brand	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Product name	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

What type of forage do you currently feed your horse?

	Organic	Non-organic	Don't know
Hay	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Haylage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How frequently do you use forage analysis services?

- Never
 Occasionally/sometimes
 Routinely

If you currently feed any of the following products to your horse, who or what prompted you to do so?

Please click on all that apply

I thought my
 Trimmer
 Vet advised
 Deficiency

	horse needed it	advised use	use	identified via blood test	Other
A branded general balancer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A branded general vitamin and mineral supplement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A branded hoof or foot health supplement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A branded gut health supplement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Calcium carbonate (limestone)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Copper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Iron	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Magnesium carbonate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Magnesium chelate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Manganese	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Monosodium phosphate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Seaweed (Iodine)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Selenium	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tumeric	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Yeast	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Zinc	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vitamin E	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Biotin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vitamin B	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Linseed seed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Oil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Salt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

During the last 12 months, have you had your horse's blood analysed to identify any issues?*

Yes

No

Why did you request a blood test?

Maximum 1000 characters (approximately 140 words)

What did the vet report back about the results from the blood test?

Maximum 1000 characters (approximately 140 words)



Barefoot horse owners

Treating hoof/foot infections

If you own more than one barefoot horse, then when answering the questions about soaking, please think about your barefoot horse whose name is at the top of an alphabetically ordered list of the names of all your horses

Do you ever soak your horse's hooves to help promote general hoof health?*

- Yes
 No

How frequently do you soak your horse's hooves to promote general hoof health?

- Daily
 Weekly
 Monthly
 Every 3 months
 Other, please specify

When soaking your horse's hooves, what type of soaking solution do you generally use?

- Plain water
 Salt water
 Household bleach
 Borax
 Milton
 CleanTrax
 Apple cider vinegar
 Epsom salts
 Other, please specify

Have you ever used (on any barefoot horse) any of the following products to treat a hoof/foot infection? If so, which ones would you recommend?

Please click on all relevant responses

	I have used this product on my horse's feet	I would definitely recommend this product	I might recommend this product	I would definitely not recommend this product
Athlete's foot cream	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Artimud	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Caneston	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cider vinegar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Field paste	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Honey	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Honeyheal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hoof-stuff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Household bleach	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hydrogen peroxide	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Milton	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Silvetrasol	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sole cleanse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stronghorn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sudocrem	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tea tree products	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Thrushender	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vapour rub	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Have you ever used (on any barefoot horse) any other products to treat a hoof/foot infection? If so, which product(s) did you use and would you recommend any of them to others?

Maximum 1000 products (approximately 140 words)



Barefoot horse owners

Where your horse is kept

If you own more than one barefoot horse, then when answering questions in this section, please think about your barefoot horse whose name is at the top of an alphabetically ordered list of the names of all your horses

Where do you keep your horse?

- Own premises
- Private rented pasture/stable
- DIY or part-DIY livery stables

- Full livery
- Other, please specify

Do you keep your horse indoors or outdoors?*

- Always outdoors
- Partly outdoors/partly indoors
- Always indoors

Have you had the soil of the pasture on which your horse grazes analysed?

- Yes
- No

Do you do any of the following to help manage your horse's weight?

Please click on all that apply

- Use a grazing muzzle
- Keep your horse for periods of time in an outdoor area without access to grass
- Use permanent or temporary fencing to create an area that restricts availability of grass and/or promotes movement
- Other technique(s) to restrict grass intake and/or promote movement (please specify)

Do you keep your horse on a track system?*

- Yes
- No

Please describe your track system (provide details, for example, about size and shape, types of surface, whether set-up is permanent)

Maximum 2000 characters (approximately 300 words)

What are the good points about your track system?

Maximum 1000 characters (approximately 140 words)

How do you think your track system could be improved?

Maximum 1000 characters (approximately 140 words)



Barefoot horse owners

Workload

If you own more than one barefoot horse, then when answering the questions in this section, please think about your barefoot horse whose name is at the top of an alphabetically ordered list of the names of all your horses

Does keeping your horse barefoot restrict the amount of different types of work that your horse can do?

Please click on all that apply

	Yes	No	Not applicable
Hacking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lunging or any other in-hand work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dressage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jumping	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Road work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Riding on stony surfaces	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please use this space to explain your answer to the previous question about the way in which keeping your horse barefoot does/doesn't restrict different types of work

Maximum 2000 characters (approximately 300 words)

During the last 12 months has your horse taken part in any of the following activities/events?

Please click on all that apply

	Local event	National event	International event
Clinic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dressage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Endurance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eventing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Le Trek	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Polo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Racing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Showing (in-hand, ridden or driven)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Show jumping

Please provide details of any other organised events/activities that your horse has participated in during the last 12 months

Maximum 1000 characters (approximately 140 words)



Barefoot horse owners

Hoof boots

If you own more than one barefoot horse, then when answering the questions in this section, please think about your barefoot horse whose name is at the top of an alphabetically ordered list of the names of all your horses

Has your horse ever worn hoof boots?*

Now, or in the past

- Yes
 No

Which of the following statements reflect your views about, and experience of, using hoof boots?
 Please click on all that apply

- I use different sized (or makes of) boots on different hooves
 My horse's feet change in size during the interval between trims which means that I need more than one set of boots
 I have had problems with my horse losing boots
 I have had problems with boots rubbing my horse
 I have tried many different makes and sizes of boots
 I have had to make modifications to boots so that they stay on and/or don't rub
 Boots can be difficult to put on and/or take off
 I see boots as a temporary, rather than a permanent, solution
 Other issue, please specify

Does your horse currently wear hoof boots?*

- Yes
 No

When does your horse wear hoof boots?

Please click on all that apply

	Front hooves	Back hooves
Whenever I work my horse (in-hand, ridden or driven)	<input type="checkbox"/>	<input type="checkbox"/>
When my horse does road work	<input type="checkbox"/>	<input type="checkbox"/>
When my horse works on surfaces that are rougher than roads (e.g., tracks)	<input type="checkbox"/>	<input type="checkbox"/>
When my horse is turned out in a field	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>



Barefoot horse owners

Barefoot views

In general, to what extent do you agree with the following statements?

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Some people make negative judgements about those who keep horses barefoot	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Keeping horses barefoot routinely takes more time than keeping horses shod	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Owners need a high degree of attention to detail to be able to keep their horses barefoot	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Who trims your horse's feet is critical to keeping your barefoot horse comfortable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Keeping horses barefoot is empowering	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Keeping horses barefoot is cheaper than keeping them shod	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What is the (one) most important piece of advice you would give somebody who was thinking about keeping their horse barefoot?

Maximum 2000 characters (approximately 250 words)



Barefoot horse owners

Human-horse relationship

To what extent do you agree or disagree with the following statements?

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
I consider my horse(s) to be pets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I consider my horse(s) to be working animals (e.g., for competition or financial gain)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Working with horses is part of my profession	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Horses are a hobby/passion of mine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

To what extent do you agree or disagree with the following statements?

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
I keep horses for the sense of achievement (e.g., bringing on a youngster, becoming an accomplished rider)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I keep horses for the satisfaction gained from the personal relationship I have with my horse	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I keep horses in order to compete and win	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Barefoot horse owners

Demographic information

This information is being collected to allow the characteristics of people completing this survey to be compared with those of the wider horse owning population. All data will be kept confidential

Gender

- Female
 Male

Age

- Under 16 years
 16 to 20 years
 21 to 30 years
 31 to 40 years
 41 to 50 years
 51 to 60 years
 61 to 70 years
 71 to 80 years
 81 to 90 years
 91 years and over

Where, in the UK, do you live?

- North East England
 North West England
 Yorkshire and the Humber
 East Midlands
 West Midlands
 East of England
 London
 South East England
 South West England
 Scotland
 Northern Ireland
 Wales

What is your occupation?

Maximum 200 characters

What is your total annual household income?

- Less than £9,999
- £10,000 to 19,999
- £20,000 to £29,999
- £30,000 to £39,999
- £40,000 to £49,999
- £50,000 to £59,999
- £60,000 to £69,999
- £70,000 to £79,999
- £80,000 to £89,999
- £90,000 to £99,000
- £100,000 or more

What is your highest general educational qualification?

- GCSE
- 'A' Level
- BTEC/diploma
- Undergraduate degree
- Post-graduate qualification
- Vocational qualification
- Other, please specify

If you have passed any British Horse Society (BHS) Stage exams or hold any National Vocational Qualification (NVQ) horse care test qualifications, what is the highest qualification of this type that you hold?

Maximum 1000 character (approximately 140 words)

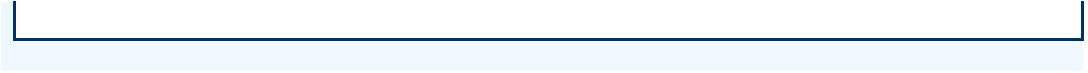


Barefoot horse owners

Any other information

Is there anything else you would like to tell us about keeping a horse barefoot?

Maximum 4000 characters (approximately 600 words)



12.3.12 Appendix C.12: Recruiting questionnaire respondents

Table B.1 Sources of trimmer contact details (searched February 2018):

Name	Website address
Barefoot horse info	www.barefoothorse.info
Barefootworks	www.barefootworks.co.uk
Cannock Chase Equine	www.cannockchaseequine.co.uk
Equine Podiatry Association (UK)	www.epauk.org
Institute of Applied Equine Podiatry	www.equinepodiatry.com
Equine-harmony	www.equine-harmony.co.uk
Hoofing marvellous	www.hoofingmarvellous.net
UK Natural Horse Care Practitioners	www.uknhcp.org.uk
Horse Network	www.[countyname]horse.co.uk

12.3.13 Appendix C.13: Trimmer questionnaire invitation letter

Dear Trimmer name

I found your details on the XXX website and am writing to ask you to complete a survey about being a trimmer. The survey is part of a wider study about keeping horses barefoot. The information that you provide is very important as it will help vets, researchers and other stakeholders to understand more about how, and why, people keep horses barefoot. This knowledge will lead to better communication between these groups and will, ultimately, help to improve equine welfare. The study will be reported in my PhD thesis and the plan is to also present results at conferences and in published articles.

The study also includes a barefoot horse owner survey. If you own a barefoot horse and would be willing to complete the horse owner survey as well as the trimmer survey, then that would be very much appreciated.

Both questionnaires are available for completion online. It has been estimated that each questionnaire will take about 25 minutes to complete. Responses are confidential and will only be used for research purposes.

The trimmer and horse owner questionnaires can be accessed via the following links:

Trimmer questionnaire: <https://survey.liv.ac.uk/trimmers>

Horse owner questionnaire: <https://survey.liv.ac.uk/owners>

Information about, and links to, the horse owner questionnaire have been posted on barefoot-specific Facebook pages. However, if you know of anyone who may not have seen these and might be willing to complete the questionnaire, please will you email them the link.

Your views are an extremely important part of this study and I very much hope that you will be able to complete the questionnaires. Please do not hesitate to contact me if you would like more information about the study or have any queries about the questionnaires.

Best wishes

Sophie

Research Associate

University of Liverpool

Email: barefootsurvey@liverpool.ac.uk

12.3.14 Appendix C.14: Horse owner questionnaire social media advertisement

I am a PhD student at the University of Liverpool carrying out a study about keeping horses barefoot. If you have a horse that is barefoot, then I would be really grateful if you could take the time to complete the questionnaire. It will take about 20 minutes to complete and your responses, which will only be used for research purposes, will remain strictly confidential.

The survey can be accessed via the following link: <https://survey.liv.ac.uk/owners>

Many thanks in advance!

12.3.15 Appendix C.15: Methods used to assign horse owner questionnaire respondents to groups

Assignment to groups was based on horse owners' responses to the questions displayed in Box B.1.

Box B.1 Horse owner questions used to assign respondents to horse owner typology groups

Barefoot horse owners
<p>Going barefoot</p> <p>If you own more than one barefoot horse, then when answering the questions in this section, please think about your barefoot horse whose name is at the top of an alphabetically ordered list of the names of all your horses</p> <p>During the time you have owned your horse has s/he been</p>
<p> <input type="radio"/> Barefoot for the whole time <input type="radio"/> In and out of shoes <input type="radio"/> Mainly barefoot but with a short period shod <input type="radio"/> Previously shod but now permanently barefoot <input type="radio"/> Other <input type="text"/> </p> <p>Please use this space to provide details about the period(s) of time your horse has been barefoot/shod Maximum 1000 characters (approximately 140 words)</p> <div style="border: 1px solid black; height: 40px; width: 100%;"></div>
<p>If any of your horses are currently shod, please explain (briefly) why you do not keep them barefoot Maximum 1000 characters (approximately 140 words)</p> <div style="border: 1px solid black; height: 40px; width: 100%;"></div>

Committed barefooters

Questionnaire respondents were assigned to this group if:

No information provided in response to the question 'If any of your horses are currently shod, please explain (briefly) why you do not keep them barefoot'

AND

Indicated that during the time they had owned their questionnaire horse s/he had been 'Barefoot for the whole time'

Appropriateness of inclusion in this group was checked against comments supplied in the free text box that was available for respondents to provide details about the period(s) of time their questionnaire horse had been barefoot/shod. As a consequence of this check, one respondent (ID384) was reassigned to the part-time barefooters group.

In addition, one respondent (ID2189) who did not indicate that their questionnaire horse had been 'Barefoot for the whole time' they had owned her/him, but did explain in the free text box that their questionnaire horse had always been barefoot, was added to this group.

New barefooters

Questionnaire respondents were assigned to this group if:

No information provided in response to the question 'If any of your horses are currently shod, please explain (briefly) why you do not keep them barefoot'

AND

Indicated that during the time they had owned their questionnaire horse s/he had been 'Previously shod but now permanently barefoot'

OR

Indicated that during the time they had owned their questionnaire horse s/he had been 'In and out of shoes' or 'Mainly barefoot but with a short period shod'

AND

If the information supplied in the free text box that was available for respondents to provide details about the period(s) of time their questionnaire horse had been barefoot/shod suggested that the periods of shoeing related to the transition period

Where there was doubt, respondents were assigned to the intermittent barefooters group.

Intermittent barefooters

Questionnaire respondents were assigned to this group if:

Information was provided in response to the question 'If any of your horses are currently shod, please explain (briefly) why you do not keep them barefoot'

OR

If all horses owned were unshod but the free-text box available for respondents to provide information about the periods of time their questionnaire horse had been barefoot/shod suggested that their questionnaire horse had spent a period of time shod due to the weather, workload/terrain, health or a view was expressed that shoes were needed to cope with a health issue or the workload/terrain.

Where the reason for shoeing the horse was unclear, cases were assigned to this group.

12.4 Appendix D: Further details relating to research results

12.4.1 Appendix D.1: Products recommended by trimmers for treating equine foot infections

Table D.1 Products recommended by trimmers for treating equine foot infections

Product	Never	Rarely	Sometimes	Often	Always
	n (%)	n (%)	n (%)	n (%)	n (%)
Athlete's foot cream (n=26)	21 (80.8)	2 (7.7)	3 (11.5)	0 (0.0)	0 (0.0)
Artimud (n=28)	4 (14.3)	4 (14.3)	11 (39.3)	8 (28.6)	1 (3.6)
Caneston (n=27)	22 (81.5)	3 (11.1)	2 (7.4)	0 (0.0)	0 (0.0)
Cider vinegar (n=25)	12 (48.0)	3 (12.0)	4 (16.0)	4 (16.0)	2 (8.0)
Field paste (n=27)	3 (11.1)	1 (3.7)	7 (25.9)	14 (51.9)	2 (7.4)
Honey (n=26)	11 (42.3)	4 (15.4)	9 (34.6)	2 (7.7)	0 (0.0)
Honey heal (n=25)	10 (40.0)	5 (20.0)	7 (28.0)	3 (12.0)	0 (0.0)
Hoof-stuff (n=27)	5 (18.5)	1 (3.7)	8 (29.6)	13 (48.1)	0 (0.0)
Household bleach (n=28)	26 (92.9)	1 (3.6)	0 (0.0)	1 (3.6)	0 (0.0)
Hydrogen peroxide (n=27)	22 (81.5)	3 (11.1)	1 (3.7)	1 (3.7)	0 (0.0)
Milton (n=27)	10 (37.0)	4 (14.8)	7 (25.9)	6 (22.2)	0 (0.0)
Silvetrosol (n=28)	20 (71.4)	1 (3.6)	1 (3.6)	5 (17.9)	1 (3.6)
Sole cleanse (n=28)	9 (32.1)	2 (7.1)	9 (32.1)	7 (25.0)	1 (3.6)
Stronghorn (n=27)	21 (77.8)	2 (7.4)	2 (7.4)	2 (7.4)	0 (0.0)
Sudocrem (n=27)	7 (25.9)	5 (18.5)	10 (37.0)	4 (14.8)	1 (3.7)
Tea tree products (n=27)	15 (55.6)	5 (18.5)	5 (18.5)	1 (3.7)	1 (3.7)
Thrushender (n=27)	23 (85.2)	1 (3.7)	2 (7.4)	0 (0.0)	1 (3.7)
Vapour rub (n=27)	27 (100.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)