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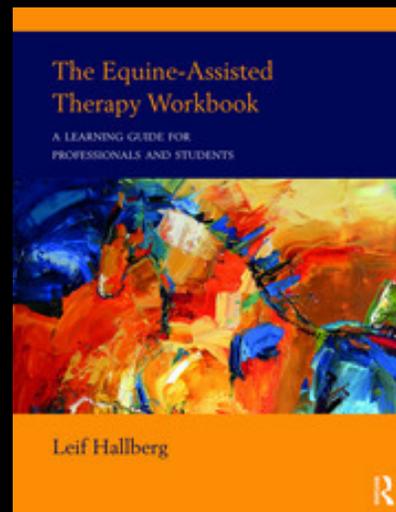
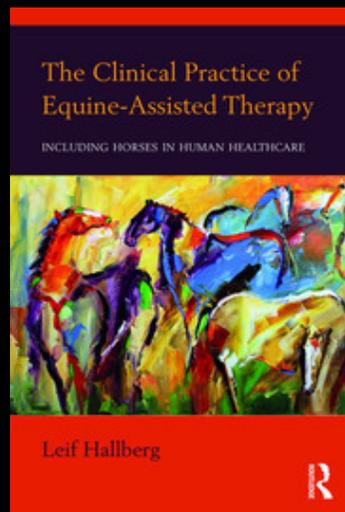
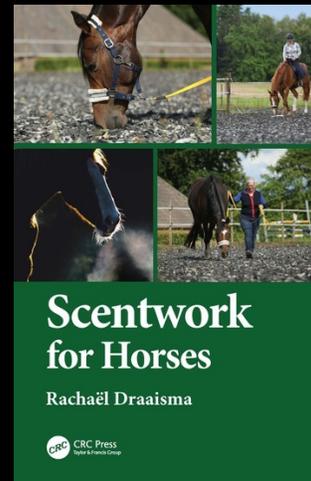
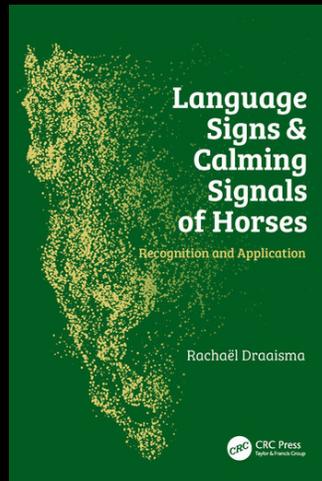
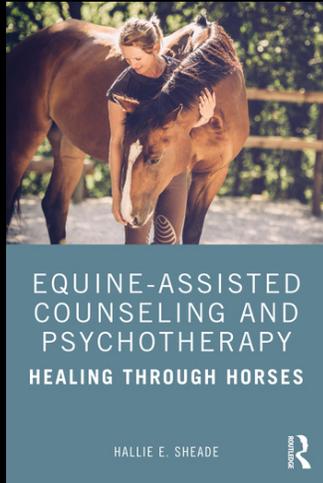


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CHAPTER

1

# NATURE OF EQUINES



EQUINE-ASSISTED  
COUNSELING AND  
PSYCHOTHERAPY  
HEALING THROUGH HORSES

HALLIE E. SHEADE



This chapter is excerpted from  
*Equine-Assisted Counseling and Psychotherapy:  
Healing Through Horses*  
by Hallie E. Sheade.

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# Nature of Equines

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The fossil record for the evolution of horses and other equines dates back 55 million years ago. Of all animals, the horse's fossil record is one of the most complete records for macroevolution (Bokor, Broo, & Mahoney, 2016). Horses are members of the order Perissodactyla, which includes all species of equids as well as rhinoceroses and tapirs. The hallmark trait of this group of mammals is having an odd number of toes. Today's equid family not only includes domesticated horses and donkeys but also six other wild species of asses and zebras, all of which have a single toe on each foot. Despite their (mostly) large size today, the earliest ancestors of today's equines were much smaller and approximated the size of a small dog. Modern-day equines are believed to have evolved in North America and spread outward until becoming extinct in North America about 10,000 years ago in response to climate changes. Domesticated horses were later reintroduced to North America during the Spanish conquest (Orlando, 2015).

Like humans, equines are mammals and share much in common, from our brain structures to the importance of our social relationships with others. However, unlike people (who are predators), equines are prey animals. This identity influences equines' "operating system" or how they see, interpret, and respond to their environment. Their identity as a prey animal also influences the development of their five senses and associated morphological structures to provide them with the best chances for survival. Finally, individual equines vary in personality and behavior based on their unique life experiences and genetics.

## Emotions in Equines

There is some controversy surrounding the assignment of emotions in non-human animals. World-renowned ethologist Dr. Marc Bekoff (2007) maintained that, despite skepticism, animals do in fact experience emotions. He differentiates emotions from feelings. Bekoff (2007) described emotions as arising from physical reactions that influence behavior to respond to external events whereas feelings arise from thoughts and influence our interactions with others. Given that equines are mammals, like people, we share many similarities in

anatomical structures, physiology, and behaviors in response to certain stimuli. Therefore, we can infer that although equines cannot articulate their emotions like people, they do have emotional states (Bekoff, 2006; Paul, Harding, & Mendl, 2005). Additionally, just like people, different equines may express emotion in different ways (Bekoff, 2007).

Equines interpret and respond to the world and others based on this emotional energy (Hamilton, 2011). Equines living in herds rely on transmission of positive emotions to promote group cohesion and negative emotions such as fear to predator detection (Hall, Randle, Pearson, Prenshaw, & Waran, 2018). This tendency is supported by the fact that equines tend to show right-brain dominance, the hemisphere which is the home to emotion (Johnson et al., 2019). In interactions with other equines, people, and other animals, equines observe scent, pheromones, facial expressions, eye movement, and gaze to infer emotions in others (Bekoff, 2007). It is likely that they also perceive other physiological markers such as heart rate, breathing rate, and possibly the presence of certain neurochemicals relating to stress and social connection.

Darwin (1890/2009) identified six basic emotions universal to all animals: anger, surprise, happiness, sadness, fear, and disgust. Bekoff (2007) defined Darwin's six basic emotions as primary and proposed that animals also experience secondary, more complex emotions involving higher brain processes. These emotions can stem from the primary emotions such as empathy, compassion, jealousy, embarrassment, longing, and regret. Unlike humans, equines cannot filter or hide their emotions, although the expression of their emotional states associated with certain experiences such as pain or discomfort may be different than those of people or other animals (Bekoff, 2007; Broom, 2007). In contrast to people or dogs who may verbalize in response to pain, equines may not due to their nature as a prey animal and avoidance of drawing attention to themselves (Broom, 2007). It is important to be aware that even if equines respond differently to emotions, it does not mean that they are not still experiencing them. In fact, the best way to recognize equine emotions is to attend to changes in body posture or tension, movement, facial expressions, eye size and movement, and vocalizations. Most people possess the inherent capacity to observe and intuit what emotion an animal is experiencing even if they are untrained in that particular species (Bekoff, 2007). However, the ability to identify an equine's emotions is not the same as understanding the specific meaning of a behavior and therefore it is still essential to become well-versed in reading and interpreting equine behaviors in order to practice equine-assisted counseling and psychotherapy.

According to Paul and colleagues (2005), emotional states are comprised of physiological, behavioral, cognitive, and subjective components. Mendl, Burnman, and Paul (2010) described equine emotion as characterized by two dimensions: arousal (calm versus excited) and valence (positive versus negative). Emotions serve an adaptive purpose for both people and equines. An emotional response to a stimulus helps us to stay out of harm's way and encourages us to

approach positive or rewarding stimuli (Elliot, Eder, & Harmon-Jones, 2013). From there, we can infer an equine's feelings and expectations about a particular stimulus (or person) based on whether the equine decides to approach, avoid, retreat, or turn away. However, it is important to note that, at times, prey animals may approach a potential "predator" to gather more information if they are unsure about the risk posed by the potential predator (Fishman, 1999). Additionally, the equine's vocal cues, ear positioning, and facial expressions will also communicate their emotions (Paul et al., 2005; Wathan, Proops, Grounds, & McComb, 2016). Just as with people, equines' emotions influence their thought process and, in turn, their thoughts influence their emotions (Hausberger et al., 2019).

### **Equine "Operating System": The Prey Animal**

I like to use the term "operating system" to describe the differing ways that prey animals and predators see and operate in the world. Just as the ultimate goal of all computers is information processing, the ultimate goal of all animals is to survive to live another day. However, the ways that prey and predator go about meeting this ultimate goal differ, just like Microsoft and Apple have different operating systems with the ultimate goal of information processing. Although there are many similarities, there are also distinct differences. The identity of the equine as the "quintessential prey animal" influences everything about the equine's life experience from their form, senses, social structure, and behaviors (Hamilton, 2011, p. 4). At the end of the day, the equine's ultimate goal is to not get eaten, followed by the desire to feel safe and comfortable. In contrast, predators are less concerned with fear of being eaten and more focused on gaining rewards or "the spoils of the hunt." The equine's high level of emotional attunement and skill in communicating nonverbally likely arose as a survival mechanism directed primarily by the right brain hemisphere. In contrast, people became the "Super-Predator" by increasing our reliance on left-brain skills such as language development, planning, and building (Hamilton, 2011, p. 5). However, through this process, the right brain hemisphere lost ground, resulting in the loss of much of our emotional attunement skills (Hamilton, 2011). These differences in operating systems can create incompatibilities that often result in difficulties for equines and humans to connect and feel safe with each other. Understanding and responding to the equine as a prey animal is the best way to overcome these difficulties and form mutually satisfying relationships.

As a prey animal, equines have a heightened awareness of what is happening around them on all sides. They live in herds to "crowd source" this awareness and decrease their chances of being eaten by a predator. Furthermore, equines prefer to move patiently and intentionally in the world as opposed to rushing, which can signify the presence of a predator and is linked to the fear emotion. This understanding is important to keep in mind as a person's frustration, elevated energy, or efforts to "hurry" an equine can lead to a heightened anxiety

and fear in the equine. Furthermore, equines tend to move towards things at a curve or angle rather than a straight line like a predator. When learning something new, equines can learn with less repetition than predators. Furthermore, equines are more motivated by a release of pressure than a reward. An equine's primary response to something unfamiliar is to perceive it as a potential threat and initiate survival efforts (Hamilton, 2011). As a prey animal, the equine's main defense is flight (Goodwin, 1999). Even the placement of the equine's eyes on the side of their head is indicative of being a prey animal. In contrast, people and other predators literally "see" the world in a completely different way given our forward-facing eyes. However, that is not the only difference between us. Predators also tend to use much more verbal language to communicate than prey animals who try to stay quieter and less detectable to potential predators.

### **The Five Senses**

Equines have some of the largest eyes of all mammals. Equines rely on visual cues and have excellent eyesight that is believed to be better than that of dogs or cats (Wathan, Burrows, Waller, & McComb, 2015). Although equine and human eyes share many similarities, they also differ in significant ways. Equine eye placement on the sides of their head enables them to have a greater field of vision in order to detect movement and potential predators (Saslow, 2002). Equines use both monocular vision, in which two separate images are created, and binocular vision, in which two separate pictures are superimposed to create a single three-dimensional image. Equines use binocular vision when they are able to move their heads and necks freely. As equines get closer to an object, they process it through monocular vision and therefore need to see it with each eye. In total, with unrestricted movement, equines have an almost 360-degree field of vision. It is important to be aware that equines have blind spots that are directly behind, directly in front (under the nose or in front of the forehead), and on their backs near the withers (Hill, 2006). It is likely that equines have dichromatic color vision and are skilled with depth perception and judging distance. Their vision is likely superior to humans in low-light conditions (Murphy, Hall, & Arkins, 2009). Additionally, equines use visual cues to identify and recognize familiar humans (Lampe & Andre, 2012; Proops & McComb, 2012) and other equines (Proops, McComb, & Reby, 2009).

Equines have excellent hearing. Although their ear structures are similar to those of other mammals, equine ears have more mobility than other domestic animals. Equines likely have superior auditory abilities in comparison to people as they can hear higher pitches and lower frequencies. In addition, they can hear sounds from a much further distance than a person. Equines use auditory cues to evaluate potential threats (Hill, 2006) and to recognize familiar people and equines (Lampe & Andre, 2012). When an equine hears

an unfamiliar or potentially threatening sound, they often appear to “freeze” and become extremely focused on listening until they determine the sound to be insignificant. Furthermore, the positioning of the equine’s ears can provide clues on what they are attending to and what direction it is in (Wathan & McComb, 2014).

Equines also possess a superior sense of smell in comparison to people. In fact, their sense of smell is so acute that they can detect changes in water based on scent (Hill, 2006). Equines breathe into each other’s nostrils to gain valuable information about each other. Oftentimes, efforts to smell hormones in urine, sweat, or other bodily fluids can provoke the flehmen response, in which the equine curls the upper lip back to try to get a deeper scent by pushing the scent deeper into the nostrils (Hill, 2006). Additionally, equines can experience emotional transmission through scent, as different human emotions (e.g., happy or angry) produce different physiological responses in equines that appear to be consistent with the emotion in the scent presented (Lanata et al., 2018). Equines take a great interest in smelling manure of other equines and likely use this information to identify individual herd members and to detect the presence of equines with whom they have a history of agonistic interactions (Krueger & Flaunger, 2011). Using scent to identify individual herd members may have been generalized to also recognize familiar humans using olfactory cues (Lampe & Andre, 2012). Like other mammals, taste is closely connected to sense of smell. Equines have a natural affinity for salty foods and learn to enjoy sweeter foods later in life. They are more disinclined towards bitter or sour tastes (Hill, 2006).

Tactile communication is essential in equine and other mammalian social bonding. Equines are sensitive to touch, even one as light as a fly. In fact, equines often respond reflexively to flies who land on them by contracting muscles in their skin to move the fly (Hill, 2006). Equines use their vibrissae (i.e., whiskers) surrounding their eyes, nose, and mouth to determine if their head or nose can fit into a small space to avoid getting stuck (Hill, 2006). These vibrissae are believed to be so sensitive that clipping or cutting of the whiskers has been banned in Germany, Switzerland, and France (Eurodressage, 2019). Sensitivity to touch can vary by individual equine and across breeds. For example, cold-blooded breeds such as draft horses may be less responsive to touch in comparison to hot-blooded breeds such as Thoroughbreds (Hill, 2006). Historically, tactile communication has been a critical component of the human-equine relationship for both bonding and for utilitarian tasks such as riding. Grooming just above the withers (whether mutual grooming with other equines or by people) can trigger a calming, relaxation response in the equine receiving the grooming (Feh & De Mazieres, 1993). Equines use tactile exploration, such as with their lips, to explore and gain information about unfamiliar objects especially since they cannot see objects directly underneath their nose. They also use their hooves to inspect or dig by pawing (Hill, 2006). Equines are responsive to pressure whether it is applied directly using a hand on their rump

or shoulder or the pressure applied by the noseband of a halter when leading an equine (Hill, 2006).

## **Equine Social Behavior**

Equines are highly social and live in groups for survival as prey animals. In both feral and domestic groups, herds are typically led by mares (female equines), not stallions (unaltered male equines). Mares tend to demonstrate more dominant and aggressive behaviors than stallions. It is interesting to note that aggressive behavior in stallions kept by humans may be more a function of the artificial nature of equine husbandry (e.g., kept individually in stalls or small pens) rather than increased aggression as an innate trait (Goodwin, 1999). Overall, domestic equines tend to demonstrate more aggressive behaviors than feral equines as a result of resources limitations (i.e., food, water, or space) or competition to access resources (Goodwin, 1999). Equines work to maintain harmony and stability in the herd in order to function efficiently to best protect herd members from potential predators. Furthermore, equines will actively work to reduce conflict in the herd and even intervene to disrupt conflict among herd members (International Society for Equitation Science, n.d.). I, myself, have witnessed this in session, both in observing conflict among equines and between session participants and equines. In one herd, Turbo, a Palomino gelding, frequently intervened when Rebel, a young Appaloosa gelding, became too excitable both with other equine herd members and with the human participants. On numerous occasions, Turbo has intervened and driven Rebel away from the session when Rebel starts to engage in high-energy pushy or mouthy behaviors. He will continue to keep Rebel at a distance until Rebel demonstrates behaviors believed to be calming signals, such as licking and chewing. Only then will Turbo allow Rebel to re-approach the herd and people in the herd.

Equines are also likely to form pair bonds with other herd members in order to experience increased social support. Domestic equines also form these bonds with other species such as goats, donkeys, and humans. Equines can also experience joy and sadness in their interactions with others. I have witnessed horses who appear to grieve and feel sadness following the death of a herd member. Others have also documented grief in equines such as donkeys (Bekoff, 2007).

Equines evolved to establish partnerships and understanding with other species in order to be more aware of potential predators and ensure survival. This trait is demonstrated in the mixed species groups of zebras, wildebeests, and other African ungulates which learn and respond to each other's predator warning signals (Goodwin, 1999). Therefore, forming relationships and learning to understand humans may be a natural extension of this innate tendency to relate to other species.

Equines build relationships based on affiliative interactions more so than agonistic (i.e., aggressive) interactions. Recent research indicates that herd decisions are not made solely by an established "leader" but as a group in which

any equine can initiate herd activity such as moving to a new location. Equines with higher levels of “boldness” may be more inclined to initiate herd movement than “shy” equines. Furthermore, equines who are pair-bonded are more likely to move together (Hartmann, Christensen, & McGreevy, 2017). Equines engage in two types of leadership: social leadership and spatial leadership. Social leadership is identified as equines who take action to reduce conflict in the herd (e.g., Turbo’s handling of Rebel’s agonistic behaviors). Spatial leadership refers to the initiation and direction of herd members to move to a new location (International Society for Equitation Science, n.d.). Equines do establish dominance between members of the herd. However, dominance is not necessarily linear in the herd. Instead, most recent research indicates that equines relate to each other as individuals rather than establishing a rank order of all herd members (International Society for Equitation Science, n.d.). For example, although horse A may be dominant to horse B, and B may be dominant to C, C may still be dominant over A (Goodwin, 1999). The concept of dominance in equines may be overemphasized or misunderstood by humans in trying to integrate into equine social structures for training and handling purposes (Goodwin, 1999).

One of the ways that equines connect is through play. Starting as babies (i.e., foals), play provides valuable opportunities for social development. Play serves many functions in animals from learning social skills to building relationships. Just as in people, animal play is characterized by cooperation, fairness, trust, apology, forgiveness, and empathy (Bekoff, 2006). Even adult equines may engage in play to solidify relationships with other herd members or to relieve stress (Goodwin, 1999).

Equines relate to each other and to humans by reading and interpreting body language, especially in perceiving potential cues for alarm (Goodwin, 1999). As a highly social animal, equines have sophisticated methods of communicating with both equines and other animals (including people) through use of body language, scent, small movements of eyes, ears, and head, and vocalization (Lanata et al., 2018; Proops & McComb, 2010; von Borstel, n.d.; Wathan & McComb, 2014). Equines are capable of identifying different emotions in humans and equines using an interpretation of cues related to body language, body tension, facial expressions, and scent. By using body language, equines can transmit messages over considerable distance without making sounds that could alert a potential predator (Hamilton, 2011). Equines attend to ear positioning and facial expressions of herd members to detect potential predators, find food, and establish social bonds (Wathan et al., 2015; Wathan & McComb, 2014). The information gained from observing other herd members’ facial expressions determines how best to respond to another herd member. Equines are more inclined to approach other herd members displaying positive or relaxed facial expressions and avoid members displaying agonistic facial expressions. Equines also demonstrate physiological indicators of increased arousal such as increased heart rate in response to a herd member’s

agonistic facial expression (Wathan et al., 2016). Finally, equines also use different types of whinnies in response to different types of emotional arousal and valence to regulate social interactions (Briefer et al., 2015).

## **Equine Temperament and Personality: Interaction of Nature and Nurture**

Whereas temperament is regarded as innate traits that we are born with that inform our nervous system responses, personality is regarded as temperament combined with traits that we acquire through life and experience (Sackman & Houpt, 2019). As fellow mammals, it is likely that equines share certain personality traits with people (Gosling & John, 1999). However, it is important to consider these personality characteristics in the context of the equine's "operating system" and how they may present differently than in individual people or equines. The emergence of equine personality traits is likely the result of an interaction of several factors such as genetics, early life experiences, training, housing, diet, and the skill of previous human handlers (Hausberger, Roche, Henry, & Visser, 2008; Sackman & Houpt, 2019; von Borstel, n.d.). Understanding equine personality and temperament can help predict the likelihood of the demonstration of certain behaviors and susceptibility to stress in individual equines (Visser et al., 2003). Individual equines show high levels of variation across certain personality characteristics such as level of fear or outgoingness. These personality traits are influenced by genetics, breed, and environment (Hausberger, Muller, & Lunel, 2011). In particular, fear reactions can be influenced by both breed (genetics) (Hausberger, Bruderer, Le Scolan, & Pierre, 2004) and past training and experiences with humans (von Borstel, n.d.).

Equines can inherit certain personality traits from their parents, just like people (Hausberger et al., 2008). According to McBride and Mills (2012), equines vary across three primary temperament dimensions: sensitivity to aversion (e.g., flightiness), sensitivity to reward (e.g., extraversion and exploratory behavior), and sociability and gregariousness. Other researchers have suggested six personality dimensions that equines can be evaluated on: dominance, anxiousness, excitability, protection, sociability, and inquisitiveness (Lloyd, Martin, Bornett-Gauci, & Wilkinson, 2007). An equine's sensitivity at a young age may be predictive of behavior as they grow older (McBride & Mills, 2012). In addition, an equine's genetic makeup can influence their level of stress tolerance, comfort with new situations, and propensity for developing stereotypies (i.e., stress-related compulsive behaviors) such as cribbing (Briefer Freymond et al., 2019; Hausberger et al., 2004).

It is important to keep in mind that every equine is unique and comes with their own set of life experiences. However, certain personality traits are often associated with specific breeds, which is likely a combination of selective breeding and the types of experiences that horses of different breeds may experience

in a similar manner. For example, a Thoroughbred racehorse will have a different set of experiences than a Percheron draft horse. That being said, researchers have documented differences between breeds. Certain breeds, such as Thoroughbreds, Arabians, Welsh Cobs, and Warmbloods, are believed to be more reactive or nervous, and more inclined to develop anxiety-related or problem behaviors; whereas Irish drafts, Quarter Horses, drafts, paints, Appaloosas, and Highland ponies are the least nervous (Bachman, Audige, & Stauffacher, 2003; Lloyd, Martin, Bornett-Gauci, & Wilkinson, 2008; Sackman & Houpt, 2019). Thoroughbreds may be more disinterested in people than a French Saddlebred or Anglo-Arab (Hausberger et al., 2008). However, other researchers found Thoroughbreds and Arabians to be more sociable and inquisitive in comparison to Welsh Cobs, Quarter Horses, and Irish drafts (Lloyd et al., 2008; Sackman & Houpt, 2019). Quarter Horses are often perceived as more patient and obedient. An equine's propensity for learning new information may also be influenced by breed. For example, Quarter Horses have demonstrated an increased learning ability when compared to Thoroughbreds (Mader & Price, 1980). Hausberger and colleagues (2008) did not find any significant differences in equines' relationships with humans based on sex. Nervousness is also not associated with sex (Sackman & Houpt, 2019). However, male equines may focus longer on novel stimuli than female equines (Wathan et al., 2016). Despite the correlations indicated in these studies, it is important to view each equine as an individual rather than to make sweeping generalizations based on breed or sex.

An equine's personality is also influenced by "nurture", or early life and/or environmental experiences that shape their view of and functioning in the world. An equine's early life experiences with humans can influence their perception of humans and level of comfort with humans as they get older. An equine's prior training or "job" can influence their ability to learn new things and their comfort with separation from herd members (Hausberger et al., 2004). Negative early life experiences may increase reluctance to work with and form relationships with people later in life. Furthermore, equines who do not receive adequate socialization opportunities when young may demonstrate more aggressive behaviors towards people (Hausberger et al., 2008).

Equines also change as a result of age and experience. Equines' learning skills improve as they age (Mader & Price, 1980). Younger equines may need more time to process new information than older equines (Wathan et al., 2016). Younger equines are also more likely to show increased initial avoidance of unfamiliar stimulus but increased exploratory behaviors after determining the stimulus to no longer be a potential threat (Baragli, Vitale, Banti, & Sighieri, 2014). As equines get older, they are better able to cope with stressful situations by demonstrating less physiological reactivity and decreased behavioral indications of stress (Baragli et al., 2014). Exploratory behavior following initial avoidance likely helps equines to gain more information and experience about the world around them. As equines age, they develop greater capacity

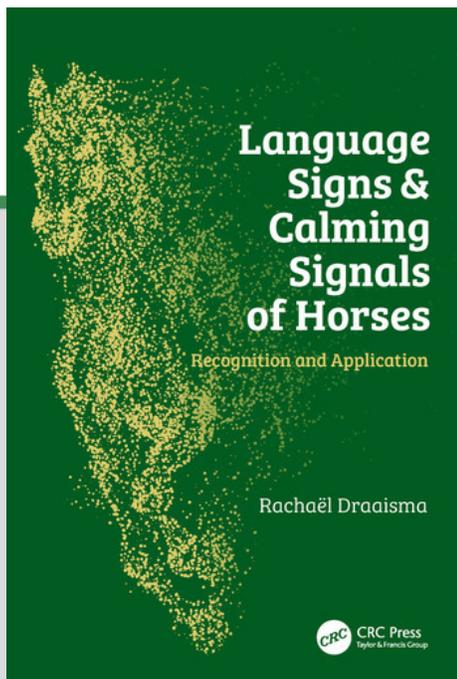
for emotional and behavioral regulation. However, it is important to note that just because older equines may not demonstrate behaviors indicative of stress does not in fact mean that they are not experiencing stress. For some equines, although they may be experiencing stress, they may learn to modify their behavior to avoid showing stress or as a result of learned helplessness (Hall, Goodwin, Heleski, Randle, & Waran, 2008).



CHAPTER

2

# THE DISCOVERY OF A LANGUAGE



This chapter is excerpted from  
*Language Signs and Calming Signals of Horses:  
Recognition and Application*  
by Rachaël Draaisma.

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# 1 *The discovery of a language*

*'The limit of my language means the limit of my world.'* (Ludwig Wittgenstein)

**B**UTTERFLIES in my stomach, lots of energy, thoughts racing through my head. When I first started this research, it was as though I had fallen in love. I could think of nothing but this study and the signals horses give. I watched horses wherever and whenever I could. I filmed them and analysed footage.

I made note of body postures and movements and tried to find similarities. This seemed impossible during the first few months because I saw so many different signals. Also, at moments when I thought, 'Hey, it looks as though horses greet people by lowering their heads', I saw horses who did not do this. When I saw a horse who blinked his eyes when he felt tension, I also saw horses who did not blink but, for example, chewed.

During the first months I felt hopeful, confused, and sometimes a little desperate. But by tenaciously continuing to record and analyse footage, I began to see a much larger and more varied spectrum of signals that horses use. I now saw patterns I had not seen at the beginning, because my field of vision had been too narrow. I needed to see and recognise more signals in order to place them inside a broader spectrum.

During my study I looked at the signals horses use in their domesticated living environment. How a horse understands and experiences his living conditions, how he responds to stimuli, and how much he communicates depends on a number of factors:

- The genetic disposition he has inherited from his ancestors; his physiology, the way in which his brain and organs work; his endocrine system; and whether he has inherited a susceptibility to any diseases or a sensitivity to fear and stress; his anatomical structure and biomechanical functions.
- His health. He may be incidentally stressed, chronically stressed, or depressed. He may be in pain. He may also feel especially relaxed, because all his mental and physical needs are being met.
- His experiences in life, both positive and negative, which to a greater or lesser degree enable him to deal flexibly with his life.
- His socialisation and training, which can either be a positive or a negative contribution to the horse's ability to cope with his life.
- His rider or handler, on whom the domesticated horse is highly dependent. A domesticated horse's quality of life is closely related to the choices made by his owner or handler.

- His living environment, which has to meet the horse's needs. Is there enough room to move? Shelter? Is there enough for him to eat and drink? Is there an opportunity for social contact with other horses? Can he get enough rest and sleep? Is he able to make choices? Does he have the option of withdrawing from certain stimuli he finds difficult to handle, or is he forced to undergo these stimuli because of a lack of space or freedom of choice?

### **NO TWO HORSES ARE THE SAME**

There are so many possible combinations of the above points that I am confident in saying that no two horses are the same, live the same life, get treated the same way, or experience the world in the same way. There are always differences in genetics, how the horse is housed, or the way his rider or handler treats him. Then there are variations in breeding and foaling programmes, socialisation, training, reward, punishment, contact with other horses, contact with people or other animals, the degree to which the horse is free to make choices, the number of times the horse is sold or moved, and generally differences in associations with all sorts of stimuli in the environment. Getting to know your horse is one of the most wonderful things to undertake. Finding out what he can and cannot handle, what he likes, and what he finds easy and difficult enables you to know if you should help him through a situation or step back. Getting to know your horse will strengthen your bond. It will also allow you to optimally guide your horse in every facet of his life, whether it is focused on dressage, show jumping, walking, recreational riding, Western riding, or ordinary daily living.

## 1.1 COMMUNICATION SIGNAL OR NOT?

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A sigh while walking, a whinny when greeting, scraping the floor with a foreleg while begging for a treat: most owners know their horse's habits. Although horses also communicate vocally, in this book I look only at their body language, especially the body signals and language related to responding and communicating.

But of course, the question is, when is a horse using his body to respond and communicate and when is he not? After all, a horse also uses his body to execute natural behaviours related to eating, drinking, resting, and procreating. The horse yawns when he is tired, half closes his eyes when he is falling asleep, scrapes his hoof across the floor to toss up ground and smell, and shakes sand from his body when he has been rolling. Here are a few pointers to help you start characterising your horse's body signals:

- Body signals and/or communication signals are always situation specific.
- The entire situation has to be taken into consideration. What is happening? What is not happening? And what is the horse responding to? It is like watching a scene in a play. What is the setting? Who are the characters? And what is the storyline?
- Paying attention to the context is crucial. Imagine your horse is at pasture and a bumble bee flies at his head. He shakes his head at the bumble bee. In this situation, his head shaking is related to chasing off the bumble bee.
- Imagine you are walking your horse around the arena. Parallel to the arena is a public road, and on it a tractor is noisily making its way in your direction. When the tractor passes you, your horse stops to take a look at it. As he watches the tractor pass by, your horse chews and blinks his eyes. He moves his head down and back up once and starts walking. The initial stimulus for his body signals is the tractor, and the horse may be responding to the tractor's appearance, its sound, its passing by or its driving away, a combination of these options, or all of these options.
- It is self-evident that in stimulus-rich environments there are many stimuli to which your horse may be responding, and you will have to figure out whether he is reacting to all the stimuli, to one of them, or to a number of them.

### **HORSES ALSO RESPOND TO AND COMMUNICATE WITH OBJECTS AND VISUAL AND AUDITORY STIMULI**

People often think that communication is only possible between humans and animals, or between animals and other animals. However, the communication patterns I have seen horses display towards people and other animals, I have also seen them display towards inanimate objects. These might be items such as rocks or trash bins, visual stimuli such as shadows or flickers of light, or sounds such as a cow mooing in the distance, the tinkling of a dreamcatcher, or a leaf blower.

### **CERTAIN GROUPS OF SIGNALS BELONG TOGETHER**

This means that there are different signals within the group of calming signals, different signals in the group displacement activities, etc. Within each group of communication signals, every horse uses its own particular signals. Horses seem to have personal preferences and form habits. In meeting a dog, for example, one horse might wish to avoid trouble and be polite, showing calming signals by chewing or tongue out chewing, or doing both. Another horse might turn his head away. Yet another might do a combination of the two, and maybe blink his eyes as well. Certain groups of signals keep coming back in all horses at the same moments.

### **THE COMMUNICATION SIGNALS REFLECT THE INTERNAL CONDITION OF THE HORSE**

Horses do not lie. Their posture and body language show how they feel and what their intentions are. Are you seeing stress signals? Then the horse is stressed. Are you seeing distance increasing signals? Then the horse wants to create more space between himself and others. Emotions and signals come and go according to how the horse is feeling.

How a horse experiences a stimulus, how he responds and communicates, can be deduced from his body signals. These are different depending on the situation. If a horse is feeling a little awkward about the sound of a lawnmower, he may show one calming signal. If the same horse is very awkward about the sound of a tractor, then he may show five calming signals.

After a while, a horse may, through personal growth and experience, come to show different signals in identical situations, so after a period of socialisation he might no longer show any calming signals at all. For me, therefore, it is crucial to keep watching and to support your claims with evidence. Just saying, 'And then the horse got angry', without backing this up by pointing to body signals the horse is showing at the time, is an admission of weakness. It is making assumptions. If you think your horse is angry, but when you look at him you see only stress signals and attempts to leave the situation, you have to change your assessment.

### **THERE IS INTERACTION**

If your horse is showing signals and you or others in the vicinity are responding to them, then a new situation has arisen. There is action and reaction. Communication and interaction are taking place. On both sides, signals are adapted to the other or to the situation.

## **1.2 IT ALL STARTS WITH A STIMULUS AND A REACTION**

A horse who startles and jumps sideways shows behaviour that we always recognise and respond to. However, horses also have body signals and facial expressions that are less obvious, sometimes smaller and quieter. Many riders and handlers do not see them or do not attach meaning to them. Some riders and handlers do recognise them, but do not know what an appropriate response might be. This is a missed opportunity. After all, you want to guide your horse in such a way that high tension and fight or flight responses are avoided. In terms of communication, this requires two things: (1) you have to recognise the body signals of your horse, and (2) you have to recognise the initial stimulus (i.e. the stimulus that causes communicative behaviour or a pattern of behaviours).

It might be a challenge to identify the initial stimulus to which your horse is responding. You may have been lost in thought, not paying attention to your horse's environment. It might also be that your horse's environment is so familiar to you that you cannot imagine your horse responding at all. It might even be the case that your horse is responding to a visual, auditory, or sensorimotor stimulus that you cannot perceive because human senses evolved differently.

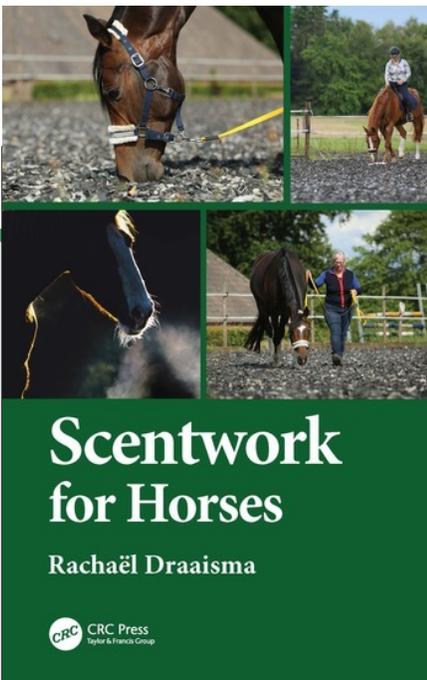
People often respond with the help of a kind of helicopter view. They rise above a situation and analyse it as the result of a larger whole. If, for example, a horse has a startle response, they may say it is because: 'My horse has not been properly socialised', or 'He is young', or 'He is always easily spooked when it is windy out'. And yes, of course, the fact that your horse is young or not well socialised contributes to his startle response. It can also certainly be a cause of it. But I want you to start distinguishing between a cause and a trigger. The trigger is the initial stimulus that causes the horse to display certain behaviour. You will find the trigger, or the initial stimulus, by asking yourself what happened the moment before your horse started? Did a bird fly out of the bushes? Was there a sound? A shadow? Stop and listen. Look around you. Was it one stimulus or were there more than one? Watch your horse. What is he looking at? Knowing which stimuli trigger your horse is necessary in order to help him, and to make a plan to enable him to deal with his environment.



CHAPTER

3

# INTRODUCING EXPLORATION



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by Rachaël Draaisma.

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# 1 *Introducing exploration*

**S**CENTS, sounds, tastes: Living in an environment designed by people for people is different for every horse. It is like a game of chance, in which everything depends on the turn of a card or a roll of the dice. He cannot choose where or how he will live. That depends on many factors, such as his heritage, suitability to various sports, height, physical appearance, character, or the wallet size of the person who buys him. Wherever the horse ends up, his day-to-day life depends greatly on his owner – that person's choices with regard to where the horse is housed, how much time he gets to spend at pasture, whether there are other horses at pasture with him and which ones, as well as his owner's ambitions and goals, choice of work intensity (how often, how much), and whether he has to travel or not. The point is clear: each individual horse's life is like a puzzle that can be laid in uncountable different ways. The same is true of the stimuli with which he is confronted every day. There can be many or few, always the same ones or always different ones. There can be days with many stimuli, interspersed with days that contain few. These can be cars or mopeds driving by, leaving a gasoline scent; tractors coming up from behind while riding in the country; the mailman delivering a package; the scent of cows released in a neighbouring field; the sound of a child crying; an air conditioner that is always buzzing in the background; an escaped dog running around the pasture; planes flying overhead; back pain due to an awkward step at pasture that is unnoticed by his rider or handler; and being touched by one person or by many. To the horse, living in a human world means living in a world filled with stimuli people maintain and ignore, including some that cannot be or are not changed.

The degree to which the horse can handle the stimuli in his living environment and how he does this determines his wellbeing to a large degree. It influences his physical and mental health, his emotions and behaviour, the degree to which he can fulfil his task, and how well he learns and remembers. It has an effect on the relationships he builds and maintains with people. If a horse cannot or largely cannot handle the stimuli in his environment, the chances are good that he will end up in a negative spiral. And if something goes wrong, it is usually the horse who pays the price.

That is why, in this book, I am focused primarily on the mental development of the horse. What does it take to train him in such a way that he can handle stimuli from our human world so that he feels comfortable around them, forms positive associations and feelings, and feels good mentally and physically?

## 1.1 THE COMFORT MAP

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When you want to create a programme for your horse and his mental development, you cannot escape having to establish a baseline, seeing which stimuli your horse encounters in his life. That way, you also have a good calibration point that you can use for comparisons in the future.

### **STEP 1: CHOOSING A PERIOD OF TIME OR CATEGORY YOU ARE GOING TO CHART**

This can be a day, an evening, a time when there are no other horses and your horse is alone, the day before and after a competition, at pasture, in the grooming area, in his stall, etc. The more time periods and categories you pick, the better you will be able to chart the stimuli your horse deals with in his life. Stimuli can include sounds he hears; scents he smells; or stimuli he sees, tastes, or feels, either from his environment or from inside himself. It is clear that we cannot identify all these stimuli; unfortunately, our senses are not as acute as a horse's. It is also hard for us to know what stimuli your horse is feeling on the inside. These can be things such as hunger, thirst, or pain before a mare goes into heat, which can translate into irritability when being touched.

### **STEP 2: LISTING YOUR HORSE'S BODY FEATURES AND BEHAVIOURS WITH REGARD TO THESE STIMULI**

You can categorize these body features and behaviours into different colour zones; I use green, yellow, orange, and red. Green is the colour of relaxation; the horse has no problem handling the stimulus/stimuli/situation. Red, on the other hand, symbolises the other end of the spectrum in which the horse wants to flee from the stimulus/stimuli/situation or chase it away. Yellow and orange are the stages in between.

In the Appendix, I give descriptions of horses' body features and signals in the different colour zones. There are also two communication ladders and an empty note-taking page you can use. That way, you have some tools to help you establish your horse's zones.

Here is a comfort map for my horse, Vosje. On this map, I have written some stimuli he encounters when he is at pasture (**Fig. 1.1**).

Zone worksheet

Horse: Vosje

Date: 26<sup>th</sup> of February 2020

Location: Pasture next to lane

Start and end time: 14.00 – 16.00 hours

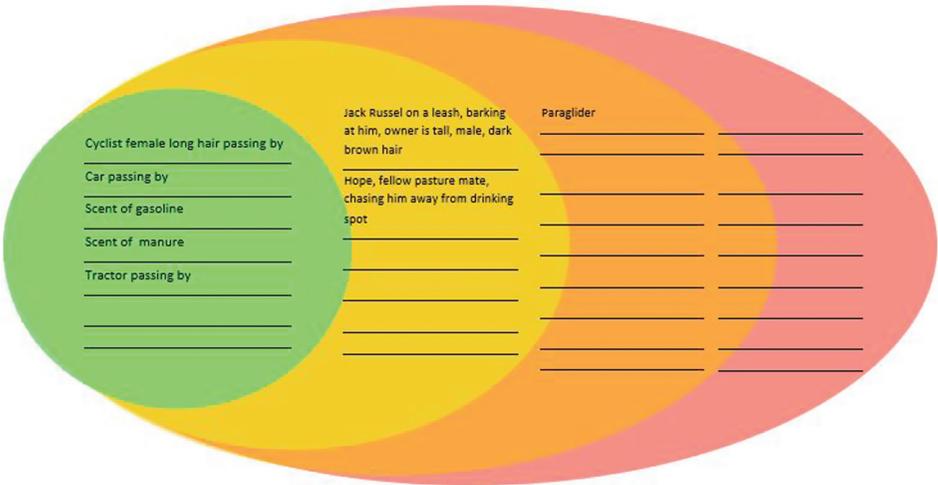


Fig. 1.1

**SEPARATION ANXIETY HAS ITS OWN COMFORT MAP**

When I am dealing with a horse who has separation anxiety, I create an alternative comfort map. I print out an areal picture of the location (Google Maps) where the horse is housed, and I colour-code the areas according to what the horse can handle when, for instance, he is taken away from the other horses (Figs. 1.2, 1.3).

**Fig. 1.2** Patricia, Esther’s horse, is at pasture (the area with the three crosses) with other horses. When Esther comes to collect her from pasture, Patricia has trouble with this. We chart how far Patricia can be removed from the other horses. The primary stimulus we are focused on now is the distance between Patricia and the other horses. Other stimuli can be added to this, and you can chart them, too.





**Fig. 1.3** By looking at Patricia's body features and behaviours, we charted these zones. We will use this information during our exercises. She also serves as a good point of comparison. Patricia's case is described in more detail in Chapter 4.

It can also be interesting to create comfort maps for yourself and see which stimuli go in your own green, yellow, orange, and red circle to see which zones overlap with your horse's and which do not. That way, you can use the information in your shared lives and work. If you are riding in the country with your horse and he is in his green zone, but you are in your yellow or orange zone, you can give the horse a bit more space and lean on him a little and vice versa. There will be more about this in section 9.4.

### **SHUTTING THINGS OUT IS NOT THE SAME AS BEING COMFORTABLE**

Pay extra close attention to the horse who obeys, acquiesces to the handler or rider's wishes, and calmly undergoes stimuli or situations. Of course, it could be that he is really able to handle these stimuli. That would be great. Sometimes, however, it happens that a horse shuts himself down for shorter or longer periods, without us humans noticing it. The moments or longer periods during which he shuts down are characterised by stillness and passivity of motion, a horizontal to mid-low or low head-neck position, and an inward gaze, possibly with half-closed eyes. There is little facial expression, in this case, and a stillness in the face (you will not see any wrinkles either). These moments of shutting down can occur within a calm movement pattern, but also within a more energetic one.

People often tell me they find it hard to recognize this shutting down. My answer: It is hard! A horse can present the same picture when he is dozing or in pain. A

good tool to use here might be the questions: 'Is this horse watching TV or not? And should that not make more sense right now?'

I like the watching TV analogy because it lets you feel and experience for yourself which elements you are looking for in your observations. When you are watching TV yourself, you are relaxed. Your gaze is turned outward, but your head and neck stay in their relaxed posture. This is different from shutting down, in which case you turn inward, as well as from a state of tension, in which your gaze is turned even more outward, but now it is no longer relaxed but tense. In that case, your eyes open more widely, there is a movement of weight and energy forward, and your head and neck tense up a little and tend forward a bit.



**Fig. 1.4** This 4-year-old horse is housed at a large trading stable. People are constantly moving back and forth, some leading other horses or pushing wheelbarrows. This horse's posture indicates shutting down. You would hope and expect a 4-year-old horse to be peering around as if he were watching TV. This horse stood like this for half an hour until a rider came to finish saddling him. In case of a longer shutting down, like here, you can also be dealing with fatigue, pain, or depression. It would also be a good reason to take a good look at this horse's life and see what could be improved.

A horse who shuts down is easier to handle for people. It is important to realise, however, that this horse also runs health risks associated with stress-related problems (see section 2.2).

If you have charted the stimuli and situations that apply to your horse, his life, and your shared lives, then you can keep these in mind when you start doing exploration and tracking exercises. That way, wherever possible, you can adapt these to the specific stimuli your horse has to get used to. Is your horse always in the green zone? Do not let that stop you. This horse will also get a lot of use and fun out of exploration and tracking.

## 1.2 EXPLORATION AND EMPOWERMENT

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I believe that we, horse owners, have an obligation to our horses to help them to understand the world around them and to cope with the stimuli they encounter. This is in addition to the obvious obligation we have to meet the horse's needs, which is reflected in 10 freedoms, the first five of which include: freedom from hunger and thirst; freedom from discomfort; freedom from pain, injury, and disease; freedom from distress and fear; and freedom to express natural behaviour. These five are often seen as the basics. However, the next five, which Marc Bekoff originally established for dogs, are just as important for and applicable to horses: 'the freedom from avoidable or treatable illness and disability, the freedom to be themselves, the freedom to exercise control and choice, the freedom to frolic and have fun and the freedom to have privacy and safe zones'.<sup>1</sup> This also includes a life among and with other horses.

The greater your horse's comfort zone in his work and life, the better he is able to handle his life. There is no upper limit to this. There is so much to experience and discover. There are so many benefits to be had for a horse with a very small comfort zone, a 'bomb-proof' horse with the huge comfort zone, and all the ones in between.

My exploration and empowerment method rests on two pillars:

1. Make the horse independent and empower him. The emphasis has to be on the horse as an individual not as a part of the horse–rider or horse–handler combination.
2. Stimulate the horse's impulse to explore. His seeking system is activated and/or further developed.

### PILLAR 1 – INDEPENDENCE AND EMPOWERMENT

Everybody knows that special older horse who has seen so much and whose responses to everything are so balanced that a young child can take him for a walk. It is not that the child is making the horse comply. No, the horse can handle life on his own. He knows the stimuli and can stand on his own four feet, and being

treated as such is what many horses need. Is it not strange, after all, that we treat every horse the same, regardless of their age? Whether he is 3 years old or 20, with a wealth of experience behind him, we stick to our habits, including how we tie him up, how we lead him on a walk, and how long we groom him.

What we find easy to do with children, we find much harder to do with horses. If we have children, we prepare them for a life of independence. As they get older, the things they have to do change as does our involvement in their lives. We let children go through processes step by step, from putting a few groceries on the conveyor belt one day, to putting them into the bag another, to paying the cashier, to getting bread while we wait outside the store, to finally doing the groceries on their own.

This goal of making the horse more independent in the human world is what I strive for. Of course we have to work within the margins of ability and safety. If you have a 4- or 5-year-old child in a big playground, you do not just let him loose either. First, you check out which playground equipment he can handle, give some tips, help out here and there, and you give him freedom to experience in areas where it is possible. When it comes to older kids, say 10 to 12, you do not need to do this check beforehand. That is how you calibrate. You do the same thing with your horse. You are constantly creating a custom package. I do see in others and in myself that letting go can often be a bit more difficult with horses.

*I was walking down a forest path with Vosje. He was in front, deciding where we went. We came to the edge of the forest. There was a barrier across the broad path we were on, blocking our way. To the left of the barrier, there was a very narrow path that curled around it. There was a big puddle of water in the middle of this narrow path, and electric wire running along its other side, marking the edge of a cow pasture. My initial, instinctive reaction was to stop Vosje, investigate the path myself first, and then lead him through it. I stopped myself though, thinking, 'Vos is over 25 and familiar with electric fences, water, and barriers: He should easily be able to handle this himself'. And, indeed, he passed through it without difficulties.*

It is human behaviour to allow the horse little or no freedom to act on his own. This is often a product of our love for the horse and wanting to take care of him. It could also be the learned notion that we humans always have to be in charge. However, these habits keep the horse in a dependent role and far less able to fully develop as an individual, something that brings enormous benefits for the horse and us.

It is important to note that this is a fundamentally different premise than that of other programmes that train the horse to handle stimuli, mostly by teaching them to endure them. These are two common examples:

*A horse is in the arena. He is wearing a halter or bridle. The trainer holds him as he or a helper confront the horse with stimuli. This can be a flag being drawn across the horse's back, or a saddle blanket (if he is not used to this), or objects that are held that make noise. In response, the horse will show flight behaviour. This can be of various gradations: from a*

*slight movement of his weight away from the stimulus or taking a few steps away from it, to a stronger reaction, in which the trainer has to hold the horse firmly because the horse really wants to escape the situation. The moment the horse starts to show behaviour the trainer sees as positive in response to the ongoing stimulus, the trainer stops applying the stimulus.*

*A 'startle training circuit'. The arena is overflowing with objects. The horses wear halters or bridles. Their handlers lead them into the arena on foot or ride them. The horses are lead or ridden in between the objects. Sometimes an umbrella is opened and closed a few times. People rattle things. The horses are not allowed to smell the objects or anything. After a certain time, regardless of the emotions or behaviour the horses are showing, everyone leaves the arena again: the trainer's hour is up.*

Disadvantages of these methods:

- The horse undergoes the stimuli. This does not accurately demonstrate his own motivation and ability to approach the stimulus, to want to discover it and interact with it. (A horse who is curious about a stimulus and wants to experience it shows different body features and gives different signals than a horse who is undergoing it.)
- It focuses on the behaviour instead of the underlying emotion. The degree to which a horse obediently stands still because that is what he was taught to do is not necessarily a reflection of an equally calm underlying emotional and physical state. In that case, the horse could be standing still as a coping mechanism, while still experiencing tension at the same time.<sup>2</sup> This could increase the chance that the horse will continue to show startle responses in the future or even show heightened fear responses to the practiced stimuli or to the stimuli he has encountered during this learning experience (such as scents, sounds, movements the people made, etc.) because, to him, the underlying emotion was negative. If the horse feels a negative underlying emotion, it can have a detrimental effect on his mental and physical health.
- If a specific rider or handler taught the horse to display a certain desirable behaviour while the underlying emotion is still negative and the tension is high, there is a chance the horse will only show this desirable behaviour in response to the stimulus in question in the presence of the person who taught him this. In the company of people other than that specific handler or rider, tension features and behaviours can still be expressed.
- If the handling and timing of the rider or handler is bad, there is a chance that the horse builds up even more tension with regard to the stimulus, and the relationship between the horse and the person deteriorates.

**PILLAR 2—THE SEEKING SYSTEM IS ACTIVATED OR STIMULATED FURTHER.**

*A curious brain is a healthy brain.*

**Turid Rugaas**

In this method, curiosity is aroused, and the horse is stimulated to investigate, to experience, and to do for himself. This sets in motion mental and physical processes that have a positive effect on the horse's wellbeing, emotions, and behaviour.

### **1.3 THE BENEFITS OF EXPLORATION AND EMPOWERMENT**

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Exploration and empowerment can be done in facilities of different kinds and sizes. You can also tailor the activities to your horse's needs and abilities. Regularly applying the empowerment and exploration method based on the needs and abilities of your horse has the following advantages:

- It meets your horse's natural need to search and explore.
- It meets your horse's need for independence and freedom of choice.
- Because the horse investigates stimuli on his own, he is not influenced by others, which enables him to build an individual frame of reference and go through an individual process of development.
- Because the horse investigates the stimuli and is given the freedom to do this in his own way, for instance by tasting, smelling, hearing, seeing, or feeling, he experiences the stimuli. He gets to know and understand them. He can place them within his own frame of reference.
- Because the horse investigates stimuli at his own pace and according to his own ability, there is a good chance that he will create positive associations with the stimuli.
- Discovering and investigating stimuli brings increased joy in life and an eagerness to undertake activities.
- It brings an increased eagerness to try new things and explore further.
- Because the horse is in control of his own pace of exploration, there is a greater chance that he will remain within a tension zone he can handle or experiences only light tension.
- It causes the horse to practice self-regulation, enabling him to calm himself when he is experiencing light tension. Because he controls the pace of exploration, he is the one who gets to overcome slight hesitations, and he practices doing this.
- Because the horse is in control of the pace of exploration, increasing the chance that he will remain within a tension zone he can handle, and because is allowed

to explore in his own way, there is a good chance the information will be stored in his long-term memory.

- The fact that the horse is in control of the pace of exploration gives us, the rider or handler, valuable information about the horse.

If you do it regularly (for instance, twice a week on average), exploration and empowerment translates into:

- A decrease in fear and aggression responses with regard to known stimuli.
- A decrease in fear and aggression responses with regard to new stimuli.
- A decrease in impulsivity.
- A decrease in overreactions and tension.
- A decrease in frustration (which had been caused by not being able to execute natural seeking behaviour).
- A decrease in boredom.
- A decrease in the development of chronically elevated stress levels.
- A decrease in the chance of developing 'shutdowns', learned helplessness, depression, and lethargy.
- An increase in impulse control.
- An increase in the amount of time in which a horse can concentrate.
- An increase in problem-solving ability, or an increase in displaying problem-solving ability.
- An increase in generalisation. If he understands a logical concept, he can link comparable concepts to it. A horse who generalises and is used to a long-haired black dog will more easily become accustomed to a short-haired grey dog, because he is familiar with the dog concept. A horse who does not generalise has to get used to the short-haired grey dog all over again.
- An increase in long-term memory capacity.
- An increase in happiness and joy in life.
- An increase of calm in the horse's behaviour and nature.
- A healthy immune system and a lower chance of developing stress-related ailments.
- Better body control.
- An increase in seeking out and maintaining social relationships.
- An increase in engagement with the rider and/or handler. It improves the relationship between horse and human from the horse's perspective.
- An increase in comfort with regard to the presence of other people.
- An increase in willingness when it comes to the tasks people ask him to perform because of the development of reciprocity.

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CHAPTER

4

# PARTNERING WITH EQUINES IN EQUINE-ASSISTED COUNSELING AND PSYCHOTHERAPY



EQUINE-ASSISTED  
COUNSELING AND  
PSYCHOTHERAPY  
HEALING THROUGH HORSES

HALLIE E. SHEADE



This chapter is excerpted from  
*Equine-Assisted Counseling and Psychotherapy:  
Healing Through Horses*  
by Hallie E. Sheade.

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# Partnering With Equines in Equine-Assisted Counseling and Psychotherapy

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Humans have always had an innate fascination with other living things. The earliest cave paintings depict various animals including horses (Olmert, 2009). Humans have interacted with animals in various capacities both in the role of prey evading predators by staying in the trees and later as predator hunting other animals for food. Although theories abound regarding the evolution of human intelligence and transition from prey animal to predator, many theories indicate that humans' propensity for observing animals may have led them to observe the behavior of large predators and begin by scavenging the remains of the large predators' hunts. Even the earliest humans appeared fascinated with animals and may have observed them for both strength and spiritual guidance, and to learn pragmatic survival skills. It is believed that humans first formed symbiotic relationships with wolves, ultimately leading to the domestication of today's dogs. Each had something to offer the other—in exchange for security and companionship, the wolf gained a new type of pack. A pack that was willing to share the spoils of each hunt. The earliest indication of a close, bonded relationship between a human and a dog was found in the remains of an Israeli burial approximately 12,000 years ago, in which a human skeleton and dog skeleton were found buried together (Davis & Valla, 1978).

Our early human ancestors used the equine for one main reason—survival. It is believed that horses may have been domesticated multiple times by different groups. Furthermore, there are many competing theories regarding the domestication of horses. One of the earliest indicators of domestication is an increased variation in coat colors as early as 5500 BCE as a result of selective breeding associated with horses in the Eurasian steppes (Ludwig et al., 2009). It is believed that the first group to domesticate horses was the Botai people of the northern steppe of Kazakhstan. Evidence of their husbandry from the fourth millennium BCE includes leather equipment, milking tools and milk residue in pottery, corrals, and skeletal evidence of biting, indicating a significant relationship between the Botai people and their horses (Gaunitz et al., 2018; Outram et al., 2009). As the Botai people are believed to be hunter-gatherers turned pastoralists, they are likely to have domesticated horses through the “prey pathway” in which horse husbandry arose from efforts to not deplete the horse as a food source from over-hunting (de Barros Damgaard et al., 2018).

In light of new genetic findings, researchers have suggested that the horses of the Botai may not in fact be the ancestors of modern horses. The only horses considered to be truly “wild”, the Przewalski’s horses, show genetic evidence of links to the Botai horses; however, modern domesticated horses do not show such ancestry. Due to both human and equine genetic findings, it is believed that other cultures also domesticated horses independently of the Botai, leading to domestication of the ancestors to modern-day horses. There are several theories regarding the ancestors of modern-day horses due to gaps in the research identifying additional groups of domesticated horses. The high amounts of mitochondrial DNA diversity found in modern horses indicates that horses may have been domesticated more than once by different groups (Vila et al., 2001). These secondary domestication centers are believed to be in Eastern Europe, the Pontic-Caspian Steppe, Eastern Anatolia, Iberia, Western Iran, or the Levant (Gaunitz et al., 2018; Lira et al., 2010; Shev, 2016). The domestication of horses by these groups may have also followed a different domestication pathway, the “direct pathway”, in which experienced farmers first hunted the horses and later initiated horse husbandry so as to not deplete the stock of available animals for food and to create a secondary resource in the form of use for milk, hide, and transportation (Zeder, 2012, p. 245). It is believed that donkeys, descended from the Nubian wild ass, were domesticated in Africa by the direct pathway also, the farmers in this case seeking their assistance in carrying heavy loads longer distances. Unlike other domesticated animals such as pigs and dogs, there are no observable differences in the appearance of wild horses and domesticated horses, leading researchers to rely on archaeological evidence of domestication such as the presence of manure and corrals (Zeder, 2012). These ancient cultures primarily used one of two approaches to domestication and training of equines based on the establishment of either a dominant human-equine relationship or cooperative human-equine relationship. Cooperative relationships were rooted in the culture’s desire to understand equine behavior to form a mutually satisfying relationship.

The domestication of horses has had a tremendous impact on the shaping of all aspects of modern society. Partnership with horses enabled the transmission of language, culture, and trade across areas previously inaccessible on foot (Gaunitz et al., 2018). Evidence of horses being used for riding is demonstrated in the dental patterns of horse bones found in the Botai region (Anthony & Brown, 2011). It is likely that horses were first ridden to hunt wild herds of horses for food and increase effectiveness of livestock management for cattle and sheep. As both mobility and livestock herd sizes increased, herding social economics and political power associated with possessing a larger herd likely followed. This societal change may have led to tribal raiding beginning in 4000 BCE followed by the birth of organized cavalry in 1000 BCE, thus forever changing the nature of warfare (Anthony & Brown, 2011). Cultures which had integrated horses and riding were tremendously successful in warfare and conquest, easily overpowering societies which lacked horses (Outram et al., 2009).

Evidence of horse-drawn chariots based on burial evidence from the Sintasha culture in 2100–1700 BCE shows additional benefits for an edge in warfare (Anthony & Brown, 2011).

## **Healing and the Human-Equine Bond**

As the use of horses expanded to new people and cultures, horses were no longer regarded solely for utilitarian purposes but also for spiritual guidance and healing. Hippocrates may have been one of the first to document the health benefits of riding horses (Riede, 1987). Xenophon, an ancient Greek general and philosopher, also touted the benefits of riding horses to heal physical ails. In addition, the horse also served as a symbol of transcendence (Hamilton, 2011). The ancient Egyptians conveyed the bond between horses and humans through hieroglyphics by depicting an intertwined rope between a horse and a person (Hamilton, 2011). Other cultures also looked to horses for spiritual guidance, including the Celts, various Native American tribes, Bedouins, and Mongolians. Some of these cultures appreciated the horse for enhancing their own self-awareness and viewed their horses as extensions of themselves (Hamilton, 2011). Many biblical and mythical stories across the religious traditions of Christianity, Judaism, Hinduism, Islam, ancient Greek, Roman, and Nordic mythology feature horses as a central part of the stories. In Jewish scripture, horses were often represented as highly regarded heavenly creatures helping the Jewish people to win un-winnable battles. In the book of Zechariah, horses are represented as guardian angels to the world. In the Hindu story of Vishnu, a horse is referenced in saving the world (Howey, 1923).

Horses were not the only animals recommended for healing physical and psychological suffering. The concept of partnering with animals to promote healing in people dates back to the time of the ancient Greeks (Grier, 1999). Living with companion animals (i.e., pets) imparts numerous physical and psychological benefits. Researchers have documented the benefits of bonding with animals to promote resilience and coping during difficult life experiences (Walsh, 2009). In the early to mid-1900s, middle-class Americans began to focus on the role of animals in teaching children self-awareness, empathy, and socialization. It was believed that interacting with animals both in nature and as companion animals enabled children to learn valuable skills that would later assist them in developing positive familial and societal relationships. These experiences were believed to be even more important in training children who had demonstrated cruel behavior to become functioning members of society (Grier, 1999).

Sigmund Freud was one of the earliest proponents of including animals in psychotherapy. Although he initially included his dog, Jofi, in sessions for his own comfort, Freud soon noticed that his patients also seemed more comfortable and talkative in the chow's presence. He noted that the dog provided a source of safety and acceptance for clients in distress (Fine, 2010). Boris

Levinson was one of the earliest therapists to call for the specific integration of animals in psychotherapy in 1961. Levinson advocated for the benefits of including pets as catalysts in speeding up the psychotherapy process, facilitating engagement with withdrawn clients, and helping children to experience healthy relationships (Levinson & Mallon, 1997). Interest in and momentum for including animals in psychotherapy began to really take off in the 1970s (Rice, Brown, & Caldwell, 1973). Corson and Corson began using Levinson's techniques at Ohio State University and conducted some of the earliest research on the inclusion of animals in psychotherapy (Levinson & Mallon, 1997). Pet Partners (formerly known as the Delta Society) was established in 1977 in order to study the effect of the human-animal bond. This organization later became the first group to establish standardized guidelines on providing animal-assisted activities and therapies (Pet Partners, n.d.).

### **Neurobiology of the Human-Equine Bond**

People have much in common with equines. We are both social animals who rely on our families and herds for safety, protection, support, and comfort. We, like other mammals, also share the brain structures (e.g., amygdala and hypothalamus) and neurochemicals (e.g., dopamine, oxytocin, endorphins, and serotonin) responsible for emotion, social connection, and empathy (Panksepp, 1998). As positive social interaction with others in our own respective species results in the activation of our brain's reward system and release of endogenous opioids and dopamine, it is likely that humans and equines experience a similar effect when involved in positive social interaction with each other (VanDierendonck & Spruijt, 2012). The human-equine bond may be rooted in mammalian attachment in which both human and equine experience a reciprocal emotional bond (Payne, DeAraugo, Bennett, & McGreevy, 2016). Researchers have demonstrated that equines can recognize and will respond differently to familiar people in comparison to unfamiliar people by using vocal, visual, and olfactory cues (Lampe & Andre, 2012; Proops & McComb, 2012). These factors combined may help us to connect with equines on an interspecies neurological level and form the foundation of the human-equine relationship.

As prey animals, equines are highly attuned to reading body language in both equines and in other species, such as humans. Equines read and react to tension in human body language in the same manner that they would respond to perceiving physical tension in an equine herd member (Goodwin, 1999). Equines and humans co-evolved to better understand each other and communicate more effectively. Much of this understanding is first communicated through touch (Scopa et al., 2019; Lagarde, Peham, Licka, & Kelso, 2005). It is likely that the relationship was strengthened by the empathic communication that accompanied riding activities. Chardonnes (2009) described Brühwiller Senn's (2003) idea of the empathic reciprocity that occurs between horse and rider in learning to read and respond to each other's posture, breathing, and

movement to work together. This experience likely played a crucial role in the strengthening of the emotional components of the human-equine bond.

Equines are also capable of reading and responding to different human emotions (Hama, Yogo, & Matsuyama, 1996) and facial expressions (Smith, Proops, Grounds, Wathan, & McComb, 2016). Additionally, equines may use human odor to interpret positive and negative emotions in people. In a preliminary study, Lanata and colleagues (2018) found that horses experienced changes in their autonomic nervous system resulting in increased arousal in response to smelling human odors in response to the emotions of fear and happiness, indicating that a transfer of emotions likely takes place from humans to horses. Equine ability to read and respond to human emotion has likely played a large role in the establishment of human-equine relationships for both work and pleasure.

Researchers have found numerous physiological and neurobiological benefits for humans as a result of ongoing interactions with animals, like those that occur by having companion animals. These benefits include improved cardiovascular health such as lower resting heart rate and blood pressure and decreased state anxiety (Barker, Knisely, McCain, Schubert, & Pandurangi, 2010; Levine et al., 2013; Shiloh, Sorek, & Terkel, 2003). Odendaal (2000) and Odendaal and Meintjes (2003) found that when people stroke dogs, both the people and the dogs experienced increases in social connection hormones such as oxytocin and the people also experienced decreases in stress hormones such as cortisol. Hama and colleagues (1996) found that both people and equines have demonstrated physiological indicators of relaxation when interacting in a positive manner. After reviewing literature on the physiological effects of social support through interaction with animals, Virués-Ortega and Buéla-Casal (2006) suggested that these positive effects may be due to stress-buffering resulting from receiving noncritical social support from animals as well as relaxation as a result of classical conditioning.

## **Benefits of Including Equines in Counseling and Psychotherapy**

There are numerous benefits to including equines in counseling and psychotherapy. Equines naturally embody many of the facilitative factors identified by researchers for client improvement and client satisfaction in counseling, namely acceptance and empathy (Lambert & Barley, 2001). In their interactions with people, equines are naturally nonjudgmental and accepting of most people contingent on their ability to feel safe and secure around those people. An equine will not judge a client for how they are dressed, the negative thoughts that play in the client's mind, or the trauma that they may have experienced in the past. Instead, the equine will respond to the client in the present moment, helping a client to feel emotionally safer and less guarded and therefore more open. Equines also possess inherent empathic understanding as they are capable of reading and interpreting the client's many nonverbal cues such as

body language and physiological changes. As equines communicate primarily through body language and facial expressions, that is also the primary way that they seek to understand people (Hill, 2006; Smith et al., 2016). Through observation, the equine can understand some of the client's inner world. Additionally, it is likely that equines are also capable of sensing the client's physiological changes in breathing, heart rate, and hormones, furthering the equine's understanding of the client's present experience (Lanata et al., 2018). The equine's subsequent behavioral feedback in response to these cues communicates this empathy to the client and enables the client to feel understood.

These facilitative factors inherently possessed by equines also enable clients to establish relationships through which they can learn positive relationship skills such as communication skills, social skills, assertiveness, empathy, and boundary-setting. These benefits have also been widely documented by professionals and researchers (Carlsson, Ranta, & Traeen, 2014; Chandler, 2017; Rothe, Vega, Torres, Soler, & Pazos, 2005; Smith-Osbourne & Selby, 2012; Vidrine, Owen-Smith, & Faulkner, 2002). The relationship with equines can become a microcosm of the client's world and patterns of interacting with other people. Through the process of building and testing the boundaries of this relationship, the equine will respond to the client with immediate, honest, and nonjudgmental feedback. Oftentimes, the client will be much more receptive to this feedback coming from an equine than another person. The equine's feedback towards specific choices and behaviors that the client may engage in during the session enables the client to gain a greater sense of personal responsibility for their actions and decision-making skills. Additionally, clients become better at self-monitoring and more deliberate and intentional in their behaviors and communication. In this way, the client-equine relationship serves both as a lab in exploring different ways of relating and later as a template for forming healthy relationships.

Learning to communicate with and gain cooperation from an animal as large as an equine can greatly empower a client while doing wonders for their self-esteem, self-efficacy, and self-confidence (Burgon, 2011; Chandler, 2017). In order to gain this cooperation and trust from the equine, the client must learn emotional regulation and to become authentic and congruent. Through this process, the client gains a stronger sense of self. Oftentimes, the equines will disconnect emotionally or even physically by moving away from clients who are not authentic. Clients will quickly learn that unhealthy patterns of relating such as aggressiveness, passiveness, or avoidance will not work with the equines. As interaction with the equines can be highly motivating, clients may feel safer to disrupt unhealthy patterns, work through barriers, and be authentic with others. As the client-equine relationship grows, many clients begin to express interest in caring for the equine by asking to clean stalls or engage in other "barn chores" independent of hands-on interaction with the equine. These requests often reflect a greater sense of belonging and connectedness in the client's belief about their own abilities to contribute positively to others and the world around them.

The presence of the equine can help clients feel less anxious about the counseling process itself and may enable them to be more open (Kaminski, Pellino, & Wish, 2002; Sobo, Eng, & Kassity-Krich, 2006). This openness can help to build strong rapport between the client and treatment team, and help the client feel safer to process upsetting thoughts, feelings, and experiences. The presence of the equine helps the client to stay grounded and engage in deeper processing levels and experience greater improvements. By stroking the equine, the client is likely to gain physiological benefits such as a decreased release of stress hormones and increased social connection hormones (Cole, Gawlinski, Steers, & Kotlerman, 2007; Odendaal, 2000). Through the relationship with equines, clients have the opportunity to process and express themselves nonverbally through touch and physical contact (Sexauer, 2011). Furthermore, the client can express and receive affection from the equines to connect, self-soothe, and self-regulate. Finally, the presence of the equines can increase client engagement in the counseling process by piquing interest and activating different parts of the brain through the novelty of the experience and physical engagement in the process, thus creating a more lasting positive impact.

The presence of the equines can also help to facilitate and strengthen the therapeutic alliance (Carlsson et al., 2014; O'Callaghan & Chandler, 2011; Wesley, 2012). Observation of the treatment team's interactions with the equines can help the client develop trust in seeing the "humanness" of the treatment team. The client is afforded the opportunity to witness how the treatment team will respond to an unruly equine, model healthy communication and boundaries, and cope with unexpected events in the session. On the flip side, the therapist has a unique opportunity to witness how the client responds in real-world situations and relationships outside of the relationship with the therapist. This observation can help the therapist to determine how the client responds to stressors and other unexpected events, as well as evaluate the client's tolerance for discomfort. Through these observations, the therapist can evaluate the client's progress through changes in the relationship with the equines and help the client to apply and evaluate new skills in the moment. The presence of the equines can also influence the client's receptivity to the overall counseling and psychotherapy process. In my equine-assisted counseling and psychotherapy practice, I often find clients to be more motivated to attend and perceive less stigma about attending compared to some colleagues' experiences in office-based practices. I am not alone in my experience. Increased client motivation when participating in equine-assisted counseling and psychotherapy has been widely documented by many other researchers and clinicians (Carlsson et al., 2014; Chandler, 2017; Karol, 2007; Vidrine et al., 2002).

### ***Partnering With Equines Versus Other Common Therapy Animals***

I believe that equines impart unique benefits in comparison to other common therapy animals such as dogs and cats. In my experience, being with equines

tends to provoke a strong initial response by most clients. Many people across cultures have specific feelings and beliefs about horses. Throughout history, literature and art have portrayed romantic notions of horses' power, strength, grace, and beauty. Many clients come to psychotherapy with preconceived thoughts and feelings associated with equines, regardless of their level of previous exposure. Some clients come to psychotherapy with feelings of fascination and awe towards equines. Other clients come with feelings of anxiety, fear, or intimidation as a result of negative past experiences with equines. Overall, most people have less exposure to equines than they do to dogs and cats, therefore making their interaction with equines more unique. For clients who have had equines in their lives, the equine becomes a source of comfort and safety to counteract the anxiety of beginning psychotherapy.

Other factors that differentiate the experience of working with equines from working with other common therapy animals include equines' large size and mentality as a prey animal. The large size of the equines provides opportunities for clients to overcome fears and learn new ways to communicate in order to get the partnership of such a large animal. Even a miniature horse may weigh 200 pounds and outweigh most large dogs. For many clients, working with a large animal can enable them to feel a range of emotions, from safety and security to anxiety and intimidation. Learning to work with such as a large animal can result in increased feelings of empowerment, assertiveness, accomplishment, confidence, and self-esteem (Chandler, 2017). Clients who may be used to communicating in maladaptive ways with others by using force or coercion may find these strategies ineffective when working with an equine.

Unlike dogs and cats, the equine has a prey animal mentality. Therefore, the equine possesses a very different "operating system" or basic understanding of itself and the world around it than humans, dogs, and cats. Equines also have different motivations in their interactions with humans than predators such as dogs and cats do (Payne et al., 2016). The main priority to an equine is to feel safe and comfortable in its herd and environment overall. Therefore, many equines are slower to approach and build trust with a human due to fears about their own safety in the interaction. The equine is highly aware of and attuned to its surroundings at all times—including the people in its environment. In addition, equine are astute readers of body language, as the majority of their communication happens through body language. Not only do equines read the body language of other equines to understand them and communicate, equines continuously read human body language as well. Therefore, working with equines requires people to not only be aware of themselves and own their body language, but also observant of the equine's body language. Learning to read equine body language combined with learning to understand the equine prey animal mentality enables psychotherapy clients to work towards developing high levels of empathy and self-awareness. Additionally, as equines live in herds for increased safety, additional opportunities are presented for clients to observe, experience, and process the social dynamics among the equines in

the context of living in social group with others of the same species. Finally, unlike most predators who tend to be driven by rewards (e.g., food or attention), equines tend to be driven to engage in actions that remove pressure and/or discomfort (Hamilton, 2011).

### ***Benefits for the Equine by Participating in Equine-Assisted Counseling and Psychotherapy***

Participation in equine-assisted counseling and psychotherapy can also be good for the equines themselves and improve their overall quality of life. In fact, it is essential that programs are structured in such a way that the equines do benefit from participation (Hatch, 2007). Often the equines experience the session as enjoyable and communicate a desire to participate. Positive changes in the equines participating in equine-assisted counseling and psychotherapy have been reported at every facility where I have practiced. One program reported that horses who had previously refused to be haltered in the pasture and ran away in response to seeing the halter began to willingly stand and be haltered. A donkey at another facility, who had been badly neglected prior to being cared for by the current owners, used to run at the sight of people approaching. After a few months of participating in equine-assisted counseling and psychotherapy sessions, this donkey began to connect with specific clients and approached them during sessions. Less than a year later, the same donkey became the “pasture greeter” and approached most clients as soon as they entered the pasture. Finally, a therapeutic riding program reported noticing less stress behaviors in the horses during lessons after the horses began participating in equine-assisted counseling and psychotherapy when they were not in lessons. I believe that it is very likely that, like canines, equines experience positive physiological benefits from interacting with people (Odendaal & Meintjes, 2003). Furthermore, the positive nurturing and low-pressure interactions that equines experience with many clients in session can repair the equines’ negative experiences with other people and in other working contexts. This idea is supported by findings from Lynch, Fregin, Mackie, and Monroe (1974) indicating that equines may demonstrate positive physiological responses while being pet by a person. These interactions enable the equine to have more freedom and autonomy to express themselves. The equines can build trusting relationships on their terms with people and have the freedom to express themselves in an environment where they will be heard and respected.

### **History of Equine-Assisted Activities and Therapies**

The accomplishments of Lis Hartel, an equestrian paralyzed below the knees from complications related to polio, are regarded as the catalyst for the development of today’s field of equine-assisted activities and therapies (EAAT). Hartel

successfully competed in dressage at the 1952 Helsinki Olympics and later in the Melbourne Games. Her success spurred interest in horseback riding for people with disabilities (PATH Intl., 2018a; Times Staff and Wire Reports, 2009). From this interest, the first two therapeutic horseback riding centers were established in the United States: The Community Association of Riding for the Disabled and the Cheff Center for the Handicapped. As interest and excitement for the field continued to grow, the North American Riding for the Handicapped Association (NARHA) was established in 1969 to establish programming and standards for horseback riding for individuals with disabilities. In 2011, the organization changed its name to the Professional Association of Therapeutic Horsemanship International (PATH Intl.) to better reflect its growth and expansion in the industry. Today, PATH Intl. not only provides certification and safety standards for therapeutic horseback riding programs, but also for programs for hippotherapy, equine facilitated psychotherapy, equine facilitating learning, therapeutic driving, and interactive vaulting. Equine-assisted counseling and psychotherapy (EACP) has been used to treat a wide variety of mental health concerns such as trauma, anxiety, depression, eating disorders, grief, oppositional behavior problems, autism, and others (Trotter & Baggerly, 2019a, 2019b).

In 1996, the Equine Facilitated Mental Health Association (EFMHA) was established by Barbara Rector, Boo McDaniel, and a group of other PATH Intl. (formerly NARHA) members interested in creating standards, ethics, and definitions for the practice of equine facilitated mental health. Rector was one of the first to formally begin the practice of equine facilitated psychotherapy and learning to address mental health and wellness. Her work with *Adventures In Awareness* and emphasis on the power of equine sentience to promote healing has had a lasting effect on the field (Hallberg, 2008; Rector, 2005). Starting first as a subsection of PATH Intl., EFMHA has accomplished much in the way of creating best-practice guidelines and later a formalized Equine Specialist in Mental Health and Learning workshop and certification to train equine professionals on best practices for EACP. EFMHA formally integrated with PATH Intl. in November of 2010 (NARHA, n.d.). It is important to note that although PATH Intl. provides certification for equine professionals and standards for practice, they do not offer a structured EACP model. As the field continues to develop, there is growing interest in the field. The American Counseling Association established the Human-Animal Interactions in Counseling Interest Network and created competencies for the practice of animal-assisted therapy in counseling (Stewart, Chang, Parker, & Grubbs, 2016). Chandler (2017) developed a guiding theory for the human-animal relationship. Many colleges and universities, such as University of North Texas, Carroll College, Oakland University, Prescott College, University of Denver, and Texas Tech University, offer training programs in animal-assisted therapy in counseling (Chandler, 2017). As interest in partnering with equines with mental health treatment grows, more organizations and models for practice are being developed both

in the United States and worldwide. There are many different approaches for partnering with equines in EACP. There are several models developed for partnering with equines exclusively such as Relational Equine-Partnered Counseling, Equine-Partnered Play Therapy, PATH Intl.'s Equine Specialist in Mental Health and Learning curriculum, the Equine-Assisted Growth and Learning Association, Eponaquest Approach™, EQUUSOMA™, Adventures in Awareness, Natural Lifemanship, EquiLateral, HEAL Model™, Human-Equine Relational Development, and many others. You can find a reference for Schlote's (2018a) comprehensive resource of the many different approaches to EACP in the Resources section at the end of this book. Throughout this text, I will highlight the integration of my approaches—Relational Equine-Partnered Counseling and Equine-Partnered Play Therapy—with case examples, best practice guidelines, client conceptualization, and specific intervention approaches in the practice of EACP.

## **Terminology in Equine-Assisted Activities and Therapies**

As previously noted by Schlote (2009), lack of consistent terminology continues to be an ongoing problem in the field. The term “equine therapy”, despite being widely used, can be a vague and misleading term used in reference to a variety of interventions. These interventions include therapy for people involving equines, services involving equines that do not qualify as therapy, and even therapy for equines provided by people. My preference is to avoid use of this term to avoid confusion and, instead, use specific terms such as “therapeutic horseback riding” or “equine-assisted counseling” to better assist consumers in understanding and identifying the proper service to meet their needs. PATH Intl. (2019) issued a statement strongly discouraging individuals who are not licensed healthcare professionals (and who do not provide services qualifying as medical therapy) from using the term “therapy” in any written literature, program names, and/or marketing. PATH Intl. (2019) advocated for the importance of reducing public confusion related to the services offered and competence of practitioners as the rationale for this recommendation.

PATH Intl. (2018a) created terminology to help clarify the different purposes of the different types of equine-assisted activities and therapies (EAAT). However, there is still much public confusion and incorrect usage of even these terms by professionals and researchers. At the time of publication, PATH Intl. had initiated a task force that is actively working on clarifying and redefining terms for the field. Based on the PATH Intl.'s current terminology, EAAT services can be categorized into equine-assisted *activities* (services facilitated by equine professionals intended to promote overall well-being to individuals with physical and psychological challenges) and equine-assisted *therapies* (services facilitated by a licensed healthcare professional and equine professional intended to meet specific treatment goals for physical and psychological conditions).

### **Equine-Assisted Activities**

*Therapeutic Horseback Horsemanship and Riding:* an activity facilitated by qualified riding instructors intended to promote overall physical and psychological well-being by providing a safe, basic horsemanship or riding lesson.

*Therapeutic Driving:* an activity in which qualified driving instructors teach individuals with physical, cognitive, or emotional disabilities to learn to drive equines from a carriage seat.

*Interactive Vaulting:* an activity facilitated by qualified vaulting instructors that blends dance and gymnastics through a series of different movements on or with the horse.

### **Equine-Assisted Therapies**

*Hippotherapy:* physical, speech, or occupational therapy facilitated by an appropriately credentialed healthcare professional and equine professional to utilize the equine's movement in meeting specific functional or treatment goals.

*Equine-Assisted Counseling and Psychotherapy (EACP)* (also known as Equine Facilitated Psychotherapy): mental health or substance use treatment facilitated by an appropriately credentialed healthcare professional and equine professional to meet specific treatment goals through interaction with horses. It is important to note that EACP is not a standalone clinical framework. Instead, therapists should integrate best practices in counseling and psychotherapy into the delivery of EACP (Ferruolo, 2015).

In this book, my preferred term is equine-assisted counseling and psychotherapy (EACP). The word “equine” encompasses not only the inclusion of horses, but also other equines such as ponies, donkeys, and mules. The term “assisted” recognizes the contribution of the equine in assisting the treatment team's facilitation of the psychotherapy process. The use of this term acknowledges the equine's importance while also emphasizing the need for the presence of a credentialed treatment team to facilitate the process (C. Chandler, personal communication, 2013). Finally, the inclusion of the terms “counseling” and “psychotherapy” enables mental health professionals identifying with various fields such as counselors, psychologists, social workers, psychiatrists, marriage and family therapists, psychiatric nurse practitioners, and others to be included in providing the service and use their preferred term. (It is important to note that, in many places, the terms “counseling” and “psychotherapy” are not regulated and can be utilized by anyone regardless of level of education and/or licensure.) Only licensed mental health professionals (or appropriately credentialed interns under the supervision of a licensed professional) should provide EACP. Of course, requirements to practice counseling and/or psychotherapy can differ across different countries. Therefore, therapists seeking to practice EACP should ensure that they are following the laws of their specific country for requirements to practice. (See Chapter 5 for more information on recommended education, training, and credentials.)



CHAPTER

5

# PROFESSIONAL COMPETENCIES IN EQUINE-ASSISTED THERAPY

The Clinical Practice of  
Equine-Assisted Therapy

INCLUDING HORSES IN HUMAN HEALTHCARE



Leif Hallberg

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by Leif Hallberg.

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## 5 The Clinical Practice of Equine-Assisted Therapy

### **Conducting Therapy in a Non-Conventional Setting**

Although equine-assisted therapy is considered a novel or emerging treatment, it is not a separate or isolated form of therapy (Ekholm Fry, 2013; Pham & Bitonte, 2016). If licensed professionals choose to use an emerging treatment, or see patients in a non-conventional setting, the laws, ethics, and boundaries associated with their professional healthcare practice and licensure do not change (Becker, 2010; Ekholm Fry, 2013).

The validity of non-conventional therapy settings is demonstrated by the use of exposure therapy to treat phobias and anxieties (Abramowitz, et al., 2012), community-based occupational therapy and mental health counseling (Boyd-Franklin & Bry, 2001; Snider, et al., 2007; Kronenberg, et al., 2010; Scaffa & Reitz, 2013; Westbrook, 2014), and wilderness or adventure therapies used to address addiction, mental health issues, self-esteem, and self-confidence in youth, veterans, and women (Powch, 1994; Gass, et al., 2012; Bettmann, et al., 2013; McGeeney, 2016; Joyce & Dietrich, 2016).

Specific to equine-assisted therapy, the non-conventional farm setting is considered an important and beneficial part of the treatment milieu (Vidrine, et al., 2002; Bizub, et al., 2003; Chardonnens, 2009; Bachi, et al., 2011; Berget & Braastad, 2011; Ekholm Fry, 2013; Carlsson, et al., 2014).

Like any type of treatment (conventional or novel), patients seek equine-assisted therapy for the purpose of addressing clinical issues and achieving treatment goals. Professionals are responsible for adhering to conventional healthcare practices even when providing a novel treatment, or working in a non-conventional setting.

### **The Right Patient**

Not all patients are appropriate for equine-assisted therapy. Licensed healthcare professionals are responsible for using the results of current research along with their clinical knowledge, training, and expertise to

decide which treatment best serves the presenting condition and the specific individual. These professionals must determine which patients are best suited for this emerging treatment and at what point in therapy the treatment would be most effective.

Key questions a therapist should consider when determining if equine-assisted therapy is an appropriate treatment include:

- What clinical rationale supports the use of equine-assisted therapy for this patient's condition?
- Is there empirical evidence to support the use of equine-assisted therapy for this patient's condition?
- Has the patient been evaluated for any possible precautions and contraindications?
- What treatment goals will equine-assisted therapy specifically address? And, how will incorporating horses and the farm milieu meet those goals more effectively than another, less costly or logistically challenging approach?
- Do the benefits associated with equine-assisted therapy for this condition outweigh the risks involved?
- Does the patient seem interested in equine-assisted therapy? And does he/she like being outside, or have an interest in horses?
- Does the family have the financial resources and time to support the use of equine-assisted therapy?
- Can equine-assisted therapy be delivered in a consistent manner based upon the patient's situation?
- Does the patient (or his/her parents, referral source, etc.) understand the investigational nature of equine-assisted therapy, and is he/she willing to sign a consent form to participate in this type of novel treatment?

Although professionals may be inclined to rely upon their own experiences of equine-assisted therapy and its impact on different patients, they are also responsible for knowing which benefits can be supported by empirical study and which cannot. Precautions and contraindications and the inherent risk of the treatment also complicate matters, and make careful assessment and evaluation on the part of the licensed professional even more important (Tseng, et al., 2012).

## **Clinical Indications**

Many benefits claims related to equine-assisted therapy are advertised by providers and national associations. In some cases, the benefits mentioned are supported only by limited research, and in others the benefits may not be supported by any empirical research whatsoever. The widespread use of anecdotal reports applied in place of empirical evidence, or citing research

that isn't transferable to the type of therapy offered, can mislead consumers into believing equine-assisted therapy is a "proven" treatment approach.

Conditions like ADHD, muscular dystrophy, spina bifida, and depression are widely reported to be effectively treated by equine-assisted therapy. However, current research does not support these claims. Other populations like veterans or active military personnel and autism are commonly treated using hippotherapy, and in many cases professionals suggest this practice is strongly supported by current research. This is inaccurate, as not a single research project published in a peer-reviewed journal could be located at the time of writing this book that investigated the use of hippotherapy for veterans or active military personnel, and out of the 24 published research articles studying the use of an equine-assisted interaction for individuals with autism, only three used hippotherapy.

A vast majority of the current research investigates the use of non-clinical equine-assisted interactions like adaptive riding or equine-assisted learning used to address or even "treat" serious medical conditions like autism and combat-related PTSD. It is impossible to assume a non-therapy method will produce the same or even similar results as a therapy service. Therefore, professionals cannot in good faith use the results of a study conducted using a non-therapy method provided by a non-licensed paraprofessional to support their own clinical decision making.

Given the lack of conclusive evidence, and the investigational nature of equine-assisted therapy, it is not yet possible to state with any certainty that equine-assisted therapy is clinically indicated for a specific population. However, it is helpful for professionals to have a clear understanding of which populations or conditions have been empirically studied. Professionals interested in providing any form of equine-assisted therapy are urged to do so with caution, carefully evaluating their patients for any signs that the treatment may be causing harm, or not producing the desired results. It is also recommended that providers are clear in their marketing materials, and indicate which benefits claims are empirically based, and which are anecdotal.

The following is a list of conditions or populations that have been empirically investigated using a documented form of therapy with outcomes published in a peer-reviewed journal. This list does not include all the studies conducted using a non-therapy method like adaptive riding or equine-assisted learning. Detailed information about these studies can be found in Chapter Four of this book:

- Addictions or chemical dependency (three studies/equine-assisted mental health)
- Anxiety (one study/equine-assisted mental health)
- At-risk youth (eight studies/equine-assisted mental health)
- Autism (three studies/hippotherapy)

- Cerebral palsy (24 live horse studies/hippotherapy)
- Down syndrome (three studies/hippotherapy)
- Eating disorders (four studies/equine-assisted mental health)
- Elderly populations (four live horse studies/hippotherapy)
- Grief (one hippotherapy study/one equine-assisted mental health study)
- Intellectual disabilities (two studies/hippotherapy)
- Multiple sclerosis (five studies/hippotherapy)
- Neurological conditions (four studies/hippotherapy)
- Non-combat PTSD, trauma, and abuse (13 equine-assisted mental health studies/one hippotherapy study)
- Psychiatric conditions or mental illness (five studies/equine-assisted mental health)
- Self-harming behaviors (two studies/equine-assisted mental health)
- Spinal cord injury (two studies/hippotherapy)
- Stroke (two live horse studies/hippotherapy)
- Veterans or active military personnel (three studies/equine-assisted mental health)

## **Precautions and Contraindications**

Equine-assisted therapy presents unique circumstances and additional risks not found in other clinical settings (Cook, 2011). Precautions and contraindications for the use of equine-assisted therapy are numerous, and are based upon the individual circumstances, the condition, the specific patient, and the training and licensure of the provider.

It is advised that professionals read the American Hippotherapy Association Inc.'s (AHA) "Best Practice for Use of Hippotherapy by Occupational Therapy, Physical Therapy, and Speech-Language Pathology Professionals" (AHA, 2017) and the PATH Intl. "Precautions and Contraindications," gain consultation from experienced medical and mental health professionals, and develop their own set of precautions and contraindications given the services they provide, the conditions they treat, and the treatment setting. However, AHA and PATH Intl. provide the following precautions and contraindications to help guide the ethical use of the treatment (PATH Intl., 2016; AHA, 2017):

### *Precautions May Include*

- Age (under 3 or elderly)
- Gross obesity
- Height and weight
- History of animal abuse
- History of fire setting
- History of seizure disorder
- Joint mobility limitation

- Medication side effects
- Migraines
- Stress-induced reactive airway disease (asthma)
- Suspected current or past physical, sexual, and/or emotional abuse

#### *Contraindications May Include*

- Actively dangerous to self or others (suicidal, homicidal, aggressive)
- Actively delirious, demented, dissociative, psychotic, or severely confused (including severe delusion involving horses)
- Acute herniated disc with or without nerve root compression
- Actively substance abusing
- Atlantoaxial instability (AAI)—a displacement of the C1 vertebra in relation to the C2 vertebra as seen on x-ray or computed tomography of significant amount (generally agreed to be greater than 4 mm for a child), with or without neurologic signs as assessed by a qualified physician; this condition is seen with diagnoses which have ligamentous laxity such as Down syndrome or juvenile rheumatoid arthritis
- Chiari II malformation with neurologic symptoms
- Coxa arthrosis—degeneration of the hip joint; the femoral head is flattened and functions like a hinge joint rather than as a ball and socket joint. Sitting on the horse puts extreme stress on the joint.
- Grand mal seizures—uncontrolled by medications
- Hemophilia with a recent history of bleeding episodes
- Indwelling urethral catheters
- Medical conditions during acute exacerbations (rheumatoid arthritis, herniated nucleus pulposus, multiple sclerosis, diabetes, etc.)
- Open wounds over a weight-bearing surface
- Pathologic fractures without successful treatment of the underlying pathology (e.g. severe osteoporosis, osteogenesis imperfecta, bone tumor, etc.)
- Tethered cord with symptoms
- Unstable spine or joints including unstable internal hardware

### **Informed Consent**

If the results of careful assessment suggest that equine-assisted therapy may be a useful treatment for the patient, it is essential that the patient (or his/her parent/guardian) is provided with full disclosure regarding the evidence (or lack thereof) supporting the intervention and its potential risks (Tseng, et al., 2012). Patients also have a right to understand what treatment may be like, and what unique characteristics or circumstances they may encounter. Additional costs and travel time should be addressed, and the licensed professional has a responsibility to consider if this additional cost or time might cause undue stress or harm to the

patient or his/her parent/guardian, or limit the effectiveness of treatment in any way.

Once all of the information has been presented, an informed decision can be made by the patient (or his/her parent/guardian) regarding whether or not to consent to treatment. This is a critical legal and ethical step to conducting treatment. Consent indicates the patient understands the risks and benefits of the service, and is willing to actively engage in the treatment process.

### **Right Patient, Wrong Time?**

Through careful assessment a licensed professional may identify a patient who would be well served by equine-assisted therapy, but the next question to be asked is, “Is now the right time?”

Take for example, a child with cerebral palsy. Although the patient appears to meet all necessary criteria and seems like a good fit, the therapist must take into consideration the timing of the treatment. Hippotherapy is known to be physically challenging (Debusse, et al., 2009), and the therapist may want to see the patient in an office setting until he/she has built up a level of strength, and then introduce him/her to the farm environment. Also, during treatment, the patient may have setbacks and the office setting could be more suited to help him/her regain strength before returning to equine-assisted therapy.

In the case of mental health professionals, working with horses can be provocative (Karol & Tac, 2007), and in some cases the patient may not be ready for the possible unintended disclosure which equine-assisted therapy can invoke. The professional may wish to see the patient in the office until the patient is emotionally and mentally prepared, and skilled enough to manage the outcomes of such disclosure.

Finally, at any time during the use of equine-assisted therapy, a licensed professional may realize the intervention isn't right for the patient at the time, and transition the patient back to an office setting. Sometimes patients need less stimuli and require the safety and comfort of an office setting, or they may need complete confidentiality that cannot be guaranteed in the dynamic farm environment.

### **The Right Type of Treatment**

Once care has been established with the appropriate licensed healthcare professional, and the licensed professional has evaluated the patient to determine if including horses and the farm milieu is a good option for the patient, it is time to determine what model or method will best address the patient's treatment goals.

Each treatment model is different, and may be more or less effective based upon the type of therapy it is paired with and the population or

condition treated. Research and publication related to these different treatment strategies and models of equine-assisted therapy is still in its infancy, but a few researchers and authors have tackled the challenge, attempting to define, describe, and clarify the theoretical or philosophical foundations and practical applications of different forms of equine-assisted therapy (Engel & MacKinnon, 2007; Karol & Tac, 2007; Hallberg, 2008; Latella & Langford, 2008; Kirby, 2010; Bachi, 2013; Brandt, 2013; Cook, 2013; Carlsson, et al., 2014; Notgrass & Pettinelli, 2015; Thomas & Lytle, 2016; Kirby, 2016).

Continued study and rigorous research is still needed to build upon existing concepts and to establish unified, comprehensive, theoretical frameworks and practical applications for the various treatment models used. Even with this lack of research, professionals have a responsibility to be as knowledgeable as possible about the different treatment options and use their best clinical judgement when choosing to include horses in human healthcare.

The upcoming section briefly introduces readers to hippotherapy, equine-facilitated psychotherapy, the EAGALA model of equine-assisted psychotherapy, and equine-assisted counseling. These emerging models are most commonly referenced in the literature, although it is assumed that over time new models will develop and these will morph and change. Readers are urged to learn more about each of these models, and additional resources are provided in each section to help in this effort.

## **Hippotherapy**

Hippotherapy describes the way in which licensed physical, occupational, and speech therapists incorporate equine movement and the farm milieu into their therapy sessions. According to the AHA, these professionals “use clinical reasoning in the purposeful manipulation of equine movement to engage sensory, neuromotor, and cognitive systems to achieve functional outcomes” (AHA, 2016).

Hippotherapy is not to be confused with an adaptive riding lesson. Rather, hippotherapy consists of treatment exercises and activities that take place while the patient is mounted on the horse, usually focusing on improving balance, posture, and gross motor function, and increasing sensory integration, neurologic function, neuromuscular coordination, or motor learning (Benda, et al., 2003; Lechner, et al., 2007; Macauley & Gutierrez, 2004; Latella & Langford, 2008; McGibbon, et al., 2009; Angoules, et al., 2015). In most cases, patients do not control the direction or pace of the horse during hippotherapy (Lechner, et al., 2007; Shurtleff, et al., 2009; Encheff, et al., 2012; Ajzenman, 2013), and most activities take place at the walk in an enclosed arena (Lechner, et al., 2007; Cook, 2014).

Licensed physical, occupational, or speech therapists conduct the therapy session, and are typically supported by horse handlers who control

and direct the horse, and side walkers who support the patient during the mounted segment of the session. The horse may be led through obstacles or patterns (like a figure eight or a serpentine) or asked to change direction, length of stride, or tempo (Shurtleff, et al., 2009; Encheff, et al., 2012; Ekholm Fry, 2013; Ajzenman, 2013). The therapist may manually intervene, helping the patient through stretches, exercises, or activities that take place while mounted on the horse (Lechner, et al., 2003). Regular equipment like bareback pads, halters, lead ropes, and riding helmets are used along with adaptive equipment such as safety stirrups and surcingles with handles (Encheff, et al., 2012; Cook, 2014).

Hippotherapy may also be used in conjunction with farm milieu activities that include horse care, grooming, and social interaction (Shurtleff, et al., 2009; Angoules, et al., 2015; AHA, 2016). Although use of the farm milieu is referenced as a part of hippotherapy (Shurtleff, et al., 2009; AHA, 2016), it is of note that the use of farm-based activities is not well documented in research nor in the training of licensed physical, occupational, or speech therapists.

Due to the similarities in training and application, it can be difficult to distinguish between the use of hippotherapy for physical, occupational, or speech therapy (Shurtleff, et al., 2009). However, each of these professions apply the treatment somewhat differently. For example, a speech therapist might use hippotherapy to address social and communication issues while the physical therapist focuses on restoring function and the occupational therapist works on daily living skills and visual or fine motor skills and movement (Personal communication with Rebecca Cook, January 20, 2017). There is much more work to be done establishing how these different professions incorporate horses and use hippotherapy.

### *Resources*

Many physical, occupational, or speech therapists who provide hippotherapy in the United States receive training through the AHA and are certified by the credentialing process of the American Hippotherapy Certification Board (AHCBC). This process is considered the gold standard within the equine-assisted therapy industry, and is widely recognized.

To date, few manuals or books have been written about the clinical practice of hippotherapy as provided by the distinct professions of physical, occupational, and speech therapy. The following books were identified as resources specific to hippotherapy, but demonstrate the lack of specificity about the type of therapy used.

- Cook, R. (2013). *Brown Pony Series: Book One: Introduction to hippotherapy*. CreateSpace Independent Publishing Platform.

- Cook, R. (2014). *Brown Pony Series: Book Two: Risk management & safety in hippotherapy*. CreateSpace Independent Publishing Platform.
- Cook, R. (2014). *Brown Pony Series: Book Four: The business of hippotherapy*. CreateSpace Independent Publishing Platform.
- Cook, R. (2015). *Brown Pony Series: Book Three: Considering hippotherapy in your career plans*. CreateSpace Independent Publishing Platform.
- Cook, R. (2016). *Incorporating games in hippotherapy: Companion book to the Brown Pony Series*. CreateSpace Independent Publishing Platform.
- Engel, B. & MacKinnon, J.R. (2007). *Enhancing human occupation through hippotherapy: A guide for occupational therapy*. Bethesda, MD: AOTA Press.
- Spink, J. (1993). *Development riding therapy*. Communication Skill Builders.

## **Equine-Facilitated Psychotherapy**

Equine-facilitated psychotherapy is provided by licensed mental health professionals who either work in tandem with an equine specialist, or who are “dually trained.” This term indicates the professional is a licensed mental health provider with horse experience and specialty training in equine-facilitated psychotherapy.

The model is loosely organized around key principles that include viewing the horse as a sentient co-facilitator whose free-form behaviors and interactions provide therapeutic fodder (Hallberg, 2008; Ford, 2013; Brandt, 2013). Use of feedback provided by the horse and opportunities for metaphor enhance the therapeutic process and help bring unconscious thoughts, feelings, and responses into consciousness (Rothe, et al., 2005; Karol & Tac, 2007; Hallberg, 2008; Bachi, et al., 2011; Bachi, 2013; Brandt, 2013).

Another key principle of equine-facilitated psychotherapy is the importance of the relationship between the patient and the horse (Karol & Tac, 2007; Hallberg, 2008; Bachi, et al., 2011; Bachi, 2013). The patient is encouraged to develop a deep relationship with the horse, and engage creatively without pre-scripted activities or tasks. Commonly, patients are invited to observe the horses at liberty in an arena or a pasture, engage in spontaneous activities like touching, grooming, leading, or engaging with a horse at liberty to practice communication and develop relationship. Patients may even paint upon the horse as a form of creative expression. Patients learn about equine communication and behavior, and are taught basic horsemanship skills to help ensure safety and respect for both parties, and in some cases, mounted work might be included as a part of the session (Vidrine, et al., 2002; Karol & Tac, 2007; Hallberg, 2008; Bachi, et al., 2011; Brandt, 2013; McCullough, et al., 2015).

Generally, there is a strong focus on present-moment awareness (Karol & Tac, 2007; Hallberg, 2008) and the integration of the mind-body-spirit connection (Hallberg, 2008; Bachi, et al., 2011). Breathing, meditation, and mindfulness practices are commonly included.

Music, drawing, painting, and other creative arts are used adjunctively (Hallberg, 2008; Ford, 2013), and depth or insight-oriented psychotherapeutic approaches pair nicely. Emerging distinctions within the model include Gestalt Equine Psychotherapy (Kirby, 2010, Lac, 2014) and Equine-Facilitated Body and Emotion-Oriented psychotherapy (Johansen, et al., 2014).

Since equine-facilitated psychotherapy is insight-oriented, and mostly guided by the non-manualized, non-scripted interactions between the patient and the horse, it tends to move at the patient's pace of self-discovery and could be considered a long-term approach to psychotherapy. This model may be well suited for individuals dealing with trauma, abuse, anxiety, and low self-esteem who are seeking increased self-awareness and self-actualization.

Since risk mitigation strategies like teaching patients about basic horsemanship skills and educating them about equine communication and behavior are commonly used in equine-facilitated psychotherapy, the risks associated with the model are lessened. However, along with the previously mentioned precautions and contraindications, there are other specific considerations to take into account.

Individuals who are not actively dissociated or psychotic, but who are dealing with schizophrenia or schizoaffective disorder, may be served by equine-facilitated psychotherapy, but the depth-oriented activities that are typically included in the model may be precautionary, as they could prompt breaks from reality (Brandt, 2013). Also, individuals with intellectual disabilities may not benefit from the abstract concepts or activities common to equine-facilitated psychotherapy. Other patients who are seeking a brief, more action-oriented form of counseling may also not be suited for the model.

### *Resources*

Individuals interested in offering equine-facilitated psychotherapy commonly receive training from Eponaquest, Adventure in Awareness™, the Human-Equine Alliances for Learning (HEAL), the Equine Psychotherapy Institute, and the Human-Equine Relational Development Institute (HERD). Training programs that focus on Gestalt Equine Psychotherapy like the Gestalt Equine Institute of the Rockies may also be available. Although some of these trainings, and the books referenced here, may focus on experiential learning or use different terminology, many of the foundational principles are commonly found in equine-facilitated psychotherapy.

Here is a list of books related to equine-facilitated psychotherapy:

- Buzel, A.H. (2016). *Beyond words: The healing power of horses*. Bloomington, IN: AuthorHouse.
- Dunning, A. (2017). *The horse leads the way: Honoring the true role of the horse in equine facilitated practice*. Bishopscastle, UK: YouCaxton Publications.
- Kirby, M. (2016). *An introduction to equine assisted psychotherapy: Principles, theory, and practice of the Equine Psychotherapy Institute Model*. Bloomington, IN: Balboa Press AU.
- Kohanov, L. (2001). *The Tao of Equus: A woman's journey of healing & transformation through the way of the horse*. Novato, CA: New World Library.
- Kohanov, L. (2003). *Riding between the worlds: Expanding our potential through the way of the horse*. Novato, CA: New World Library.
- Lac, V. (2017). *Equine-facilitated psychotherapy and learning: The Human-Equine Relational Development (HERD) Approach*. Cambridge, MA: Academic Press.
- Hallberg, L. (2008). *Walking the way of the horse: Exploring the power of the horse-human relationship*. Bloomington, IN: Iuniverse.
- Rector, B. (2005). *Learning with the help of horses*. Bloomington, IN: AuthorHouse.
- Shambo, L. (2013). *The listening heart: The limbic path beyond office therapy*. Chehalis, WA: Human-Equine Alliances for Learning (HEAL).

## **The EAGALA Model of Equine-Assisted Psychotherapy**

The EAGALA model of equine-assisted psychotherapy is offered by mental health professionals who work in tandem with an “equine specialist.” Both must be EAGALA certified and follow the EAGALA model.

This model is defined by a manualized approach that includes non-mounted, non-horsemanship activities and a specific facilitation style similar to that of a “ropes” or challenge course (Hallberg, 2008; Drinkhouse, et al., 2012; Gergely, 2012; Notgrass & Pettinelli, 2015). In this model, a primary focus is on the process of achieving or accomplishing goals or tasks that include horses (Schultz, et al., 2007; Ford, 2013). In some cases, the horse is considered a therapeutic tool whose responses and actions provide the patients with opportunities for transference, learning, and self-reflection (Schultz, et al., 2007; Gergely, 2012).

The model is action-oriented, in many ways aligning with principles of cognitive behavioral therapy, adventure-based therapy, and experiential education (Notgrass & Pettinelli, 2015). However, it is non-directive in nature (Notgrass & Pettinelli, 2015; Thomas & Lytle, 2016) and does not include teaching skills. Patients are given tasks like haltering a horse or moving a group of loose horses, but a “hands off” approach is used by the

facilitators who provide as little information or direction as possible about how to accomplish the task (Notgrass & Pettinelli, 2015; Thomas & Lytle, 2016; EAGALA, 2016). Facilitators use a specific experiential processing strategy that includes carefully observing the patients in their attempts to accomplish the task, and after the designated time allotted for the task, presenting selected observations using objective language (Gergely, 2012). During the debrief, patients have the opportunity for reflection and to generalize their learning (Drinkhouse, et al., 2012). In many cases this model is provided in a group format.

The EAGALA model does not include teaching horsemanship, horse communication, or horse safety protocols, and uses ground-only activities. EAGALA suggests this makes the model “both safe and effective” (EAGALA, 2016). This statement is in direct opposition to the results of research related to equine injuries which state understanding equine communication, behavior, and psychology—and providing safety training—are two of the most effective ways to reduce the risk of equine inflicted injury (Hausberger, et al., 2008; Cuenca, et al., 2009; Hawson, et al., 2010; Cook, 2011; Merkies, et al., 2014; Carmichael, et al., 2014).

Linda Liestman, an equine insurance broker, adds an important perspective:

Over the past couple years we are beginning to see incidents that cause us concern and we are trying to determine how to deal with this before it becomes a problem. The problems we are seeing occur as therapy moves towards patients/participants being on the ground with horses, and attempting to do something with the horse, such as move the horse around, single a horse from a group, halter a horse, lead a horse, make the horse negotiate an obstacle, etc. without being given safety training or pre-instruction.

(personal communication, May 26, 2016)

She goes on to provide a recent example, “A girl was knocked down when she was told to approach the horse with a halter and figure out how to put the halter on the horse with no safety instruction given” (personal communication, May 26, 2016). Linda provided multiple examples of other insurance claims she is currently addressing that involve participants getting kicked, stepped on, or knocked over during ground-based therapy sessions (personal communication, June 6, 2016). She notes that the accident rate for adaptive riding, hippotherapy, observation-based equine-facilitated psychotherapy, and general riding are acceptably low, with few accidents reported (personal communication, May 26, 2016). Debi DeTurk Peloso of Markel Insurance corroborates, stating that adaptive riding, hippotherapy, and equine-facilitated psychotherapy provided by PATH Intl.-certified individuals are well within the acceptable risk margins, and haven’t been subject to a rate increase since 1999 (personal communication, September 16, 2016).

The research results of Hausberger, et al. (2008); Hawson, et al. (2010); and Carmichael, et al. (2014) support the findings of Liestman, showing that serious accidents occur commonly on the ground. Carmichael, et al. (2014) discovered that although injury patterns were different between mounted and non-mounted activities, the likelihood of serious trauma was the same. The researchers concluded, “Horses are dangerous to riders and handlers, as evidenced by equal rates of head injury” (p. 1482).

Given these reports, without safety adaptations the EAGALA model of equine-assisted therapy may not be advisable for fragile populations like small children, the elderly, or those with physical conditions that could be made life-threatening if they were kicked or knocked over by a horse.

The EAGALA model of equine-assisted psychotherapy can also be evocative and the activities may simultaneously raise frustration levels and highlight dysfunctional or maladaptive patterns of behavior (Drinkhouse, et al., 2012). This can be highly effective with some populations, especially “at-risk” youth, families, couples, or groups, while other populations may not respond well to this therapeutic approach.

### *Resources*

Although EAGALA is the only entity allowed to provide a certificate of completion in its training model, other organizations may provide training that is methodologically similar to the EAGALA model. Horse Sense of the Carolinas is one such example, offering training, continuing education opportunities, and program manuals.

Here is a list of books related to the EAGALA model of equine-assisted psychotherapy:

- Hallberg, L. (2008). *Walking the way of the horse: Exploring the power of the horse-human relationship*. Bloomington, IN: Iuniverse.
- Nussen, J. (2012). *Soul recovery: Equine assisted activities for healing from abuse by others, loss of others & loss of self*. CreateSpace Independent Publishing Platform.
- Knapp, S. (2013). *More than a mirror: Horses, humans & therapeutic practices*. Marshall, NC: Horse Sense of the Carolinas, Inc.
- Mandrell, P. J. (2006). *Introduction to equine-assisted psychotherapy*. Maitland, FL: Xulon Press.
- Parent, I.B. (2016). *The fundamentals of equine assisted trauma therapy: With practical examples from working with members of the armed forces*. CreateSpace Independent Publishing Platform.
- Parent, I.B. (2016). *Teamwork in equine assisted teams*. CreateSpace Independent Publishing Platform.
- Perkins, B.L. (2016). *Counseling in nature with at-risk adolescents: Equine assisted psychotherapy and low rope techniques*. CreateSpace Independent Publishing Platform.

- Thomas, L. & Lytle, M. (2016). *Transforming therapy through horses: Case stories teaching the EAGALA model in action*. CreateSpace Independent Publishing Platform.

## **Equine-Assisted Counseling**

Although equine-assisted counseling is the least developed of the three models of equine-assisted mental health, it is an emerging practice that shows promise and deserves continued investigation. Equine-assisted counseling appears to be a practical, problem-solving, skills-based, present-moment approach to mental health treatment that is closely aligned with the principles of choice and reality therapies (Hallberg, 2008; Trotter, et al., 2008; Cameron & Robey, 2013).

Equine-assisted counseling focuses on present and future goals and the process of developing the skills necessary to achieve those goals (Hallberg, 2008). The relationship between the horse and the patient becomes a fertile teaching ground where patients can practice new skills and witness their own challenges and successes (Hallberg, 2008; Trotter, et al., 2008; Cameron & Robey, 2013). Patients address issues of relationship, control, taking action, and being responsible for their own behaviors, thoughts, and feelings. They learn to make changes in their lives through personal evaluation, planning, and practice (Cameron & Robey, 2013).

Rather than using “ropes” or challenge course-like activities as in the EAGALA model of equine-assisted psychotherapy, equine-assisted counseling is likely to use horsemanship skill building activities including grooming, leading, learning to care for horses, or riding (Hallberg, 2008; Trotter, et al., 2008; Cameron & Robey, 2013). Similarly to equine-facilitated psychotherapy, the inclusion of horsemanship skills helps to reduce the risk associated with the model. These activities foster relationship between the horse and the patient, and increase independence and self-efficacy, guiding the patient away from reliance or dependence upon the therapist.

Since equine-assisted counseling is present-moment focused, it does not necessitate that patients investigate their history or engage in depth-oriented psychotherapy. As such, this type of therapy may not be suited for those in the initial/mid-stages of dealing with past trauma and abuse. However, in later stages of recovery from trauma, this approach may be much more applicable.

Generally, equine-assisted counseling is likely a good match for patients who enjoy a practical skills-oriented approach that involves setting goals, making plans, and working hard to accomplish their desired outcome. This approach may be brief or short-term in nature, with patients seeking out guidance to address a specific goal and discontinuing services once that goal has been reached.

### Resources

Since this model is developing, no specific trainings could be identified and few books detail this approach. However, these three resources may be of help to learn more about the model:

- Burgon, H. (2014). *Equine-assisted therapy and learning with at-risk young people*. London, UK: Palgrave Macmillan.
- Hallberg, L. (2008). *Walking the way of the horse: Exploring the power of the horse-human relationship*. Bloomington, IN: Iuniverse.
- Trotter, K.S. (2011). *Harnessing the power of equine assisted counseling: Adding animal assisted therapy to your practice*. New York, NY: Routledge.

## The Right Setting

Even though equine-assisted therapy takes place in a non-conventional setting like a barn, farm, or riding stable, the facility still must to be viewed as a healthcare establishment that provides a professional service.

The National Institute of Building Sciences provides guidance for healthcare facilities, stating:

The facility conveys a message to patients, visitors, volunteers, vendors, and staff. Ideally, that message is one that conveys welcoming, caring, comfort, and compassion, commitment to patient well-being and safety, where stress is relieved, refuge is provided, respect is reciprocated, competence is symbolized, way-finding is facilitated, and families are accommodated.

(Carr, 2014, para. 1)

Along with ensuring the equine-assisted therapy facility feels welcoming, safe, and comfortable, the facility must also operate under the same legal and ethical safety perimeters as would any conventional healthcare facility. Program directors or other staff who manage the clinical services that take place at the facility are, in essence, healthcare administrators. This means they must be trained to understand, adapt, and implement healthcare laws, standards, ethics, policies, procedures, and protocols in the equine-assisted therapy setting.

## Facility Considerations

The equine-assisted therapy setting is unique as it combines aspects of a farm with a healthcare environment where people receive treatment for physical and mental health conditions. This complicated dynamic necessitates careful risk assessment and risk management with special attention paid to issues of safety, confidentiality, accessibility, hygiene, and professionalism.

The care, upkeep, and appearance of a healthcare facility is important for patient wellbeing and for the reputation of the program or provider. Facilities should meet basic conventional healthcare standards which include general upkeep, life safety, confidentiality, and recordkeeping considerations.

Probably the biggest struggle healthcare providers face when dealing with a non-conventional setting is the ability to protect patient confidentiality and assert appropriate clinical boundaries (Becker, 2010; Bachi, et al., 2011).

The juxtaposition of a confidential healthcare service that takes place in an open setting, or even at a public facility where non-therapy services are also provided, can cause challenges for licensed professionals. Lack of designated confidential farm-based treatment areas, the difficulty in maintaining acoustical and visual privacy during treatment, and the way in which confidential patient information is shared and stored can pose opportunities for unintentional breaches of confidentiality.

Although licensed professionals providing equine-assisted therapy may have patients sign a confidentiality waiver which acknowledges the provider cannot guarantee the confidentiality of the patient while at the farm, this action does not abdicate the professional's responsibility to use every means possible to maintain patient confidentiality.

Although each professional may have different requirements related to patient confidentiality during treatment, all healthcare providers utilizing the farm environment have an important responsibility to safeguard patient confidentiality. Professionals are urged to consider the following questions when evaluating the facility for equine-assisted therapy use:

- Does the facility appear well maintained and cared for? Are the animals healthy? Is the treatment equipment up to date and safe?
- Are the treatment spaces private and protected from public areas?
- Is there acoustical and visual privacy from public spaces, including waiting areas, driveways, pedestrian paths, and main roads?
- Is there a private area to conduct treatment team meetings or meet with patients or parents?
- Where are patient records stored, and how are they handled? Do these practices meet standards of the Health Insurance Portability and Accountability Act (HIPAA)?
- How is patient and visitor movement managed while on site?
- Does the facility have all of the spaces needed for the specific type of therapy (i.e. outdoor/indoor arenas, small working spaces, fenced pasture, sitting areas, private therapy rooms or outdoor spaces, a sensory trail, etc.)
- Is there a professional, comfortable, and welcoming waiting area for patients, parents, and caregivers?
- Is there an accessible bathroom?
- Does the facility meet basic healthcare facility requirements like having lighted exit signs, fire extinguishers, fire alarms, sprinklers, posted

emergency information, an evacuation plan, and a locked cabinet for animal medication storage?

- Is there enough parking?
- Can patients easily find their way around the facility? Are private and public areas well marked?
- Does the facility meet requirements of the Americans With Disabilities (ADA) Act?
- Is the facility fully fenced with a gated entrance? If not, how are visitors checked in and monitored?

The PATH Intl. standards also provide a helpful and comprehensive resource when considering a facility's appropriateness. They can be accessed online at [www.pathintl.org](http://www.pathintl.org).

### **Personnel Considerations**

People are a vital part of any clinical setting. How they present themselves and the way they interact with patients plays an important role in professionalizing the setting and making patients feel safe, comfortable, and welcomed. Providing equine-assisted therapy is not the same as offering riding lessons or other, non-therapy, equine services. Differentiating between therapy and non-therapy services is ethically and legally important, and how the staff present themselves can help patients identify they are receiving a healthcare service.

Just as in conventional healthcare settings, the providers, staff, or volunteers working at an equine-assisted therapy program have a responsibility to act and dress professionally and consider how their demeanor may be perceived by patients. Although the farm milieu can afford therapists the ability to connect more authentically with their patients, boundary violations are also more prevalent (Becker, 2010; Bachi, et al., 2011). Therapists, staff, and volunteers walk a fine line between appearing too casual and therefore risking unintentional boundary violations, or seeming too rigid and formal.

Non-licensed staff employed at programs that offer equine-assisted therapy and even the volunteers who assist with services should be trained and educated about healthcare practices just as if they worked in a conventional healthcare setting. This will help to foster greater awareness about the importance of adhering to conventional healthcare practices, laws, and ethics.

### **□ Designing the Equine-Assisted Therapy Session**

Assuming care has already been established with a patient, a treatment plan is in place, and the results of careful evaluation suggest that equine-assisted therapy is an appropriate treatment option, it is time to begin contemplating the design of the equine-assisted therapy session.

## **Develop Session Goals**

The first step in designing an equine-assisted therapy session is to carefully review the patient's treatment plan and determine which treatment goals will be addressed during the session. This process necessitates that licensed professionals use clinical reasoning coupled with research results—and the values, preferences, or individual limitations of their patients—in an effort to provide the best “evidence-based” approach possible (Sackett, et al., 2000).

Setting session goals is an important part of the patient-professional collaborative process. The best treatment plans are likely the result of a collaborative effort between the licensed professional and the patient or the patient's parent or guardian (Coulter, 2011). If patients or their parents/guardians (if the patient is too young or doesn't have the cognitive ability) feel empowered by the treatment process, they are more likely to engage and work harder to achieve their treatment goals. Talking through these goals before the session begins, and discussing the outcomes at the end of the session, can help the patient (or parents) feel more engaged and invested in treatment. This process can also help professionals evaluate the effectiveness of the treatment on a session-by-session basis, and make changes to the treatment plan as necessary.

Both long-term treatment goals and shorter-term session goals should be written in a manner consistent with whatever form of conventional therapy the professional offers. For example, a long-term occupational therapy goal could read “Demonstrate improved endurance and strength for postural control and upper extremity function by maintaining position for 4 minutes with verbal cues.” Each session is composed of specific activities conducted while mounted on a horse designed to help to achieve this goal. It is important each of these activities is worded clinically, not as an equine activity. For instance, a session or short-term goal might read, “The patient will be able to push himself erect from a prone position with little assistance and maintain the position for 2 minutes.”

Similarly, a mental health goal could read, “Decrease anxiety symptoms and demonstrate increased ability to function independently.” A corresponding short-term goal could read, “The patient will be able to follow a simple set of directions and engage in a solo activity for 5 minutes with little additional contact with the therapist.” The activity conducted to address this goal includes teaching the patient how to groom a horse, and then practice grooming alone with the therapist at a safe distance observing.

The task of the therapist is to match clinical goals with appropriate equine activities. This is one of the key areas in which specialized training in equine-assisted therapy is necessary for a professional to be considered competent.

## Determine the Context

Dependent upon the presenting issues of the patient and the associated treatment goals, the licensed professional must determine what context therapy will take place. Would group or individual therapy be most effective? What is the right dose (length of session, frequency, and duration of treatment) of equine-assisted therapy for the condition and the service? These important decisions can alter the effectiveness of treatment.

### *Individual vs. Group*

The AHA (2010) states, “Hippotherapy is a one-on-one treatment and generally occurs until the client meets discharge criteria” (p. 1). Although physical, occupational, and speech therapists may use other farm-based activities which could include a group approach, research does indicate that typically physical, occupational, and speech therapists see patients individually, whereas mental health professionals are more likely to see patients both individually and in a group context (Stroud & Hallberg, 2016).

The choice to see a patient individually or in a group context should be made based upon clinical reasoning and the presenting needs of the patient, not because either approach is easier or more cost/time-effective for the therapist. Many patients require the privacy and complete attention of the therapist, and thus individual therapy is the appropriate choice. However, in some cases patients would benefit from supported interactions with peers and learning from the experiences of others. In this case, a group context might be indicated. But it is important to remember that not every patient is suited for group therapy, and not every treatment model supports the group context.

Providing therapy in a group context is a nuanced specialization, and conducting groups with horses is even more specialized (Schroeder & Stroud, 2015). Licensed professionals considering offering equine-assisted therapy groups are advised to obtain additional training and supervision in group facilitation and group dynamics, and ensure they can maintain the safety of the group while working with equines.

Finally, if a group context is chosen, the number of patients per group is important to consider both for clinical reasons and to address the staff-to-animal-to-patient ratios. When providing groups, the training requirements for staff and animals are different as are the facility needs. Licensed professionals must take all of this into account prior to offering group sessions, and make sure they have enough trained staff or volunteers to support the group format, and that their animals and facility are appropriate for offering groups.

### *Session Length, Frequency, and Duration of Treatment*

Establishing therapeutic dosing for any treatment is a science that combines many factors, and necessitates formal (and well-designed) dose-response

studies, through evaluation of existing research results, and ongoing patient observation and titration of the treatment (FDA, 1994).

Healthcare professionals who recommend any treatment are expected to carefully monitor their patients to determine the effectiveness of the dose. If the dose is effective, the patients will show notable improvement in symptomology without severe side effects. Along with ensuring the patient can tolerate the treatment without side effects, healthcare professionals must also evaluate the responsiveness of their patients and titrate the treatment accordingly.

Little research has been done to date to establish the proper dose of the various equine-assisted therapy services based upon condition or stage in treatment. This is a critical step in gaining credibility for the equine-assisted therapy industry (Vohnout, 2011; Holm, et al., 2014; Berg & Causey, 2014; Kendell, et al., 2015).

At present, the variations in possible dosing are notable ranging from 4–40 sessions of different lengths and types (Whalen & Case-Smith, 2012; Tseng, et al., 2012; Park, et al., 2014; Kendall, et al., 2015; Nurenberg, et al., 2015). Literature suggests that sessions range in length from 5 minutes to 120 minutes, depending upon the type of service and the context (group vs. individual). According to research, hippotherapy sessions are most commonly 30–45 minutes in length and could take place once or twice a week (Champagne & Dugas, 2010; Cook, 2011; Vohnout, 2011; Whalen & Case-Smith, 2012; Park, et al., 2014). Individual psychotherapy or counseling ranges between 45–60 minutes in length and is more likely to take place once per week (Gresham, 2014; Stroud & Hallberg, 2016). Group psychotherapy or counseling appears to be more time-intensive ranging from 90–120 minutes in length (Schroeder & Stroud, 2015; Stroud & Hallberg, 2016). It is likely this wide variation may be causing some of the mixed and inconclusive research findings (Kendall, et al., 2015).

Given the state of therapeutic dosing and equine-assisted therapy, licensed professionals are urged to follow best practice guidelines for the specific clinical intervention they use, and carefully observe how their patients tolerate treatment. Based upon these observations, professionals may make adjustments to session length, frequency, and duration.

### **Choose the Appropriate Activity**

Once the goals and the session context have been established, it is time to decide what types of activities will best help the patient to achieve these goals. This step is critical in demonstrating that equine-assisted therapy is being used intentionally, not just because the therapist likes the setting or personally enjoys horses.

Designing treatment activities is a skill that develops through education, training, and experience. The professional must learn to apply specific equine activities using clinical reasoning to address long-term treatment

goals, as well as short-term session goals. The therapist is responsible for understanding the potential impact these activities might have on the patient, and for determining which activities to use at what stage in treatment. In this author's experience, those new to equine-assisted therapy may design activities that are too complex or difficult for the patient's stage in treatment, or include too many activities for one session. This usually occurs because the professional is excited to try new activities, and concerned about keeping the patient engaged. Many times, instead of being engaged, the patient may become fatigued, overwhelmed, or frustrated.

Physical, occupational, and speech therapists tend to be highly conscious of fatiguing their patients and take active steps to ensure they do not ask too much during the course of one session (El-Meniawy & Thabet, 2012; Silkwood-Sherer, et al., 2012; Homnick, et al., 2013; Baik, et al., 2014; Gencheva, et al., 2015). Hippotherapy and other equine or farm-based activities can be more strenuous than in-office techniques, and patients may be more likely to complete these activities without noticing they are tired, overwhelmed, or in pain. This can be both an advantage and a concern when providing equine-assisted therapy.

For skilled mental health professionals, one simple activity like observing a horse or learning to touch a horse can produce weeks of therapeutic fodder. If a session has too many activities planned, the nuances or subtleties that could emerge from any one of those activities may go unnoticed, and instead, maladaptive patterns might be exhibited as patients feel pushed or overstimulated (Drinkhouse, et al., 2012). Also related to equine-assisted mental health, professionals have numerous approaches or models to choose from, but picking the right one for each individual patient is very important. For example, if a patient presents with a high level of arousal, a history of sexual assault, and challenges with focus and attention, and the treatment goal is to decrease hyperarousal, an EAGALA model activity that involves chasing or moving loose horses in a group context may not be suited. Instead, an individual equine-facilitated psychotherapy session involving an activity that focuses on quiet, calming, and meditative grooming while practicing deep breathing is a choice that can be supported by clinical evidence (King, 2016; Creswell, et al., 2016).

Licensed professionals who provide equine-assisted therapy are typically used to—and likely comfortable with—being outdoors in the natural environment. Many patients who attend equine-assisted therapy do not have the same history or experience. Just spending time outside can be tiring or can even feel overwhelming for some patients. This, coupled with the intensity of the treatment activities, is important to take into account when designing equine or farm activities. Giving patients space to rest, to sit, or to relax in a comfortable position can be a helpful strategy to combat fatigue or sensory overload.

## **Choose Staff and Animal Partners**

Given the session goals, the contextual decisions, and the activities used to address the goals, the next step in designing a session is to determine the personnel needs for the session, including animals. This decision relies upon understanding the functionality and personality of the patient, the amount of time in treatment, the treatment goals intended to be addressed by the session, and the activities utilized.

### *Choosing Staff*

As addressed in earlier sections of this book, licensed professionals have a responsibility to uphold the dignity of their patients (ACA, 2016; APA, 2016; AOTA, 2016; APTA, 2016; NASW, 2016) and to keep them safe (both emotionally and physically) during therapy. Although various training and membership associations have detailed requirements about the staff that must be included during an equine-assisted therapy session, in some cases these requirements may not take into consideration the larger ethical concerns.

Patients have a right to choose how their private healthcare information is shared, and with whom (ACA, 2016; APA, 2016; AOTA, 2016; APTA, 2016; ASHA, 2016; NASW, 2016). Licensed professionals must gain the patient's prior approval before bringing another person into a confidential therapy session or sharing information with such an individual. At any point, the patient can request a change to who is present or how confidential healthcare information is shared.

It is advised that licensed healthcare professionals spend time discussing the possible staffing scenarios, and even introduce the patient to the staff or volunteers who might be present. It is important that the professional gives the patient a chance to decide if the inclusion of these individuals feels safe to him/her prior to conducting the session. Also, throughout the duration of the service, the professional should check in with the patient privately to see if he/she feels differently as treatment progresses.

There are significant differences in staffing models between hippo-therapy and the different forms of equine-assisted mental health. During hippotherapy, multiple staff and/or interns or volunteers may assist the licensed healthcare provider in the roles of horse handler and side walkers. The licensed healthcare professional is clearly in charge of the session, providing clinical direction to the patient and the staff/volunteers/interns, or may even step in and physically manipulate the patient's body to enhance treatment outcomes. During the mounted portion of the session, the therapist is likely to focus on guiding the patient through hands-on activities designed to address functional goals, and may give specific directions to the side walkers or the horse handler. It is common for the therapist to use time either before or after the session to meet with the patient and/

or family members alone in a confidential office space to discuss health-related issues, provide activities or exercises to do at home, or discuss progress and set goals.

In contrast, the various models of equine-assisted mental health have different ways in which licensed healthcare providers include other staff, volunteers, or interns. In some cases, the licensed professional works directly with a non-licensed “equine specialist” who is present during most or all of the session. Unlike hippotherapy, in which the licensed professional remains clearly in charge of the therapy session and oversees the staff and volunteers, equine specialists are commonly viewed as a partner with equal but different responsibilities for the clinical session.

As such, the role of the “equine specialist” may include designing and facilitating the equine-assisted activities, attending to the welfare of the horse or horses, and keeping the patient physically safe during the session. It is common for the licensed mental health professional to share confidential patient information with the equine specialist in order to help him/her to achieve these tasks effectively.

This role evolved because many licensed mental health professionals are not trained in equine physiology, psychology, or behavior, and in some cases receive little training in the application of the equine interaction. This led to concerns by the equine community that licensed mental health professionals would not be able to attend to the needs of the horses, or keep the patients safe during a session. In the models mentioned previously, the licensed mental health professional may take an observer role, watching the interactions occurring between the horse, the patient, and the equine specialist, and stepping in only to facilitate the processing portion of the session, or add clinical interpretation. In other cases, the licensed mental health professional works closely with the equine specialist, co-facilitating the experience. In either of these situations, due to the dynamic nature of equine-assisted mental health, it is possible, if not likely, that the therapist will discuss deeply personal psychotherapeutic issues with the patient in front of the equine specialist (Lee, et al., 2016), and in some cases the equine specialist may even comment or add to the discussion.

The relationship between the equine specialist and the licensed therapist is complicated and deserves much greater research (Lee, et al., 2016). The roles of the two individuals appear confusing, and the interaction is fraught with possible ethical boundary violations. One suggestion to help remedy this situation is for licensed mental health professionals to gain more training, education, and experience working with horses and facilitating the equine-assisted mental health session. This would allow licensed mental health professionals to guide the direction of the session based upon clinical goals, use clinical reasoning to choose activities, and decide when it is appropriate to include another person in a session.

If the licensed mental health professional needs safety support during a portion of the session, the role of the horseperson can remain clearly that

of an assistant who follows the direction of the clinician. This helps to address ethical issues created by a non-licensed person potentially influencing the direction of a clinical session. If the licensed mental health professional feels a co-facilitator is necessary, as in the case of a group or family session, he or she should work with another licensed mental health professional or Master's level intern in counseling or social work.

Obviously, the equine-assisted therapy industry has some growing to do related to how it handles the inclusion of additional non-licensed individuals in confidential therapy sessions. However, ensuring that the patient feels safe and comfortable is the first and most important step for licensed professionals to take. This includes making sure their patients (or the parents) understand it is their right to choose if additional people are included in the therapy session. Based upon this information, the therapist may have to modify the service, or may even determine that equine-assisted therapy isn't the appropriate intervention at the time.

### *Choosing Animal Partners*

The process of selecting equine partners takes clinical reasoning, thought, and intention (Anderson, et al., 1999; Matsuura, et al., 2008; Moisa, et al., 2012; Janura, et al., 2012). The physiological, psychological, and behavioral characteristics of the horse have a great impact on the patient. Licensed professionals can intentionally use these attributes to enhance the treatment, and animal selection is made based upon pre-existing knowledge about the patient's condition, the treatment goals, and the activities used.

In most cases, physical, occupational, and speech therapists carefully choose a specific horse for the session based upon the clinical needs of the patient and the confirmation, temperament, and personality of the horse. Mental health professionals may use similar clinical reasoning when pairing patients and horses, or may use the "mutual choosing" approach in which patients and horses choose each other with little intervention by the mental health professional. The number of horses who will participate, and how they will participate, is also an important consideration.

In some cases, other animals will be included in therapy sessions. This should occur only after the professional is additionally trained to work with the species and the specific animal.

Licensed professionals learn to make these clinical decisions after specialized training, education, and experience, and may use ongoing supervision as a tool to enhance their skills and knowledge.

### **Identify the Specific Farm Setting**

Given all the factors just discussed, the licensed professional will then decide what farm setting best supports the session. This could be an arena, a smaller pen, a pasture, a sensory trail, or a few chairs near the horses.

Once the setting has been identified, the professional should check the area to make sure it is safe and all necessary equipment is present and in good working order. As a part of this preparation, licensed professionals may want to consider how the setting can be made as comfortable and professional as possible. Evaluating for confidentiality issues and mitigating any concerns is an important step to creating a safe and professional setting. Considering how the patient will be welcomed into the space can also help elevate the professionalism of the service, and set the tone for the session.

### **Prepare Staff and Volunteers**

Another essential step in setting up an equine-assisted therapy session involves preparing any staff or volunteers who will be helping with the session. This includes a brief review of the patient(s) attending, the treatment goals, the activities that will be conducted, the animals who may participate, the setting that will be used, and most importantly, what the roles are of each of the staff or volunteers.

Preparing staff and volunteers also helps with retention issues. Staff and volunteers who do not feel they are properly briefed and know what is expected of them may become frustrated or disenfranchised, and may eventually seek out other volunteer opportunities (Dollard, et al., 2003). The more prepared the staff and volunteers, the more capable, competent, and independent they will become. A prepared staff is a confident staff, and they will help the service run smoothly, and allow the professional to focus more intently upon the patient.

Following a session, it is also important to take a moment to debrief with the staff and volunteers. This offers an opportunity for staff or volunteers to ask questions and voice concerns, and for the professional to offer feedback and direction for upcoming sessions. In many cases, the staff or volunteers may see things the professional missed, and this information can be helpful in developing a deeper understanding of the patient and his/her needs.

Some licensed professionals who work with the same staff or volunteers all day or even for half of a day may do one briefing in the morning for all upcoming patients, and a debrief before lunch or at the end of the day. Others chose to do briefings and debriefings every session. Although briefings and debriefings with staff and volunteers takes extra time, having a well-prepared staff speaks volumes about the professionalism of the service.

### **Prepare Yourself**

The final step in designing an equine-assisted therapy session involves the professional themselves. So often this step is the one that is forgotten or

left undone. Licensed professionals are urged to take a moment prior to welcoming the patient into the session to ground and center, check in with themselves, and review their plan for the upcoming patient. This process allows the professional the time to identify how they are feeling, and gives them a chance to move out of their role as organizer and into their role as a healthcare provider. This can be invaluable as it is easy to lose sight of this role when attempting to manage staff and volunteers, deal with horse or facility issues, and prepare logistically for a day at the farm.

In some cases, this time of personal preparedness can take place while staff and volunteers are preparing the horses and getting themselves ready for the session. This can be a nice ritual for all involved. It allows everyone the time to step into their roles and prepare before the patients arrive. This way, when the patients do arrive they are more likely to experience a sense of harmony and order rather than the chaotic energy of people trying to get ready for the session.

With all the moving parts involved in offering equine-assisted therapy, it is easy to rush through to the moment of seeing the patient. But, each one of the steps included here supports the effectiveness of the service, and enhances the professionalism of the industry.

## Conclusion

The complexity of providing equine-assisted therapy is not to be discounted or overlooked. The treatment environment is dynamic and nuanced, and presents both opportunities and challenges that are not present in a conventional treatment setting. Knowing how to use these opportunities while mitigating the risks takes skill gained through training, experience, and support.

As the industry advances, professionals will refine their knowledge and expertise, becoming more and more capable and effective in helping patients reach their individual treatment goals through the use of equine-assisted therapy.

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CHAPTER

6

# THE ETHICS OF APPROPRIATING HORSES FOR HUMAN WELLBEING

The Clinical Practice of  
Equine-Assisted Therapy

INCLUDING HORSES IN HUMAN HEALTHCARE



Leif Hallberg



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## 7 The Ethics of Appropriating Horses for Human Wellbeing

### □ The Five Freedoms

Equine-assisted therapy provides a vocation for horses, in some cases saving them from abandonment or even death. It gives horses a purpose in a time when the future of the horse-human relationship is in flux. From the anecdotal reporting of the professionals providing equine-assisted therapy, for the most part, horses appear to enjoy the work.

However, when humans appropriate another species for the good of mankind, there are ethical considerations that must be attended to. The Five Freedoms (ASPCA, 2016) provide a first step in understanding ethical care. These principles were created in the United Kingdom as a response to livestock welfare, but were adopted over the years by the World Organization for Animal Health, the Royal Society for the Prevention of Cruelty to Animals, and the American Society for the Prevention of Cruelty to Animals (ASPCA).

The Five Freedoms are:

1. **Freedom from hunger or thirst** by ready access to fresh water and a diet to maintain full health and vigor
2. **Freedom from discomfort** by providing an appropriate environment including shelter and a comfortable resting area
3. **Freedom from pain, injury, or disease** by prevention or rapid diagnosis and treatment
4. **Freedom to express normal behavior** by providing sufficient space, proper facilities and company of the animal's own kind
5. **Freedom from fear and distress** by ensuring conditions and treatment which avoid mental suffering

Each of these five areas provides an opportunity for objective assessment. But, as researchers point out, objectively understanding equine welfare can be challenging (Anderson, et al., 1999; Popescu, et al., 2014; Lesimple, et al., 2014). Researchers identify that horse owners or handlers may be resistant to seeing indications of poor welfare, and that defensive attitudes

can make it further difficult to change behaviors. Popescu, et al. (2014) propose that welfare assessment needs to be a tool not only for identifying problems, but also for supporting the positive actions of the owners or handlers. They hope that by doing this, horse owners or handlers may soften to the idea of ongoing assessment and support making critical changes that could positively impact the animal.

As Fazio, et al. (2013) state, “Despite remarkable amount of papers about the therapeutic horse-back riding wishing to analyse the therapeutic effects on human health, still very few studies focused on the impact of these activities on horses and their welfare” (p. 139). The results of the literature review conducted for this book support Fazio’s statement. Only five peer-reviewed journal articles could be located specific to studying the wellbeing of horses working in equine-assisted therapy programs (O’Rourke, 2004; Kaiser, et al., 2006; Gehrke, et al., 2011; Fazio, et al., 2013; McKinney, et al., 2015). This is in stark contrast to the 227 articles published to date related to the conditions or populations served by equine-assisted interventions.

These studies show a general uncertainty about how horses may be affected, and it is clear researchers have work in front of them to determine which variables to study, and the best tools to measure those variables.

Regardless of the outcomes of research, professionals providing equine-assisted therapy have an important responsibility to find ways to assess (as objectively as possible) the horses they work with using the Five Freedoms, and to carefully consider all the factors that might influence equine wellbeing.

## □ **Understanding Horses**

To be able to objectively assess horses, one must first understand their behaviors and actions. A lack of scientifically-based ethological knowledge about horses coupled with little horse experience may lead professionals to be unable to assess the horses they work with, or to unknowingly engage with horses in a manner that results in negative physical or emotional responses (Merckies, et al., 2014).

People of all levels of horsemanship frequently misinterpret equine communication and behavior, commonly grounding their understanding of horses in information provided by horse trainers or books written by horse trainers, or on their own personal experiences. In most cases, this information is not derived from empirical scientific investigation.

Equitation science and rigorous ethological study provide a platform from which to better understand horses, and make informed decisions about how to engage with them. Included here are three topics that tend to be the least understood, or most misused, in the equine-assisted therapy realm.

## **Communication**

Overarching all the following topics is the general issue of equine communication. As social animals, horses are highly communicative and synchronized as a herd, using visual, acoustical, tactile, or chemical communications to convey information (Goodwin, 1999; Waring, 2007; McGreevy, 2012).

Horses have a well-defined “language” which can be effectively understood by humans. Horses use communication in an attempt to diminish acts of actual (vs. perceived) aggression and violence. Typically, when all attempts at non-violent communications have been ignored, horses turn to more aggressive behaviors like biting, kicking, chasing, or striking. If humans are trained to understand the subtleties of equine communication, they are less likely to be injured because they will be responsive to the non-violent communications of the horse, and thus the horse will not be forced to escalate behaviors (Hausberger, et al., 2008; Cuenca, et al., 2009; Hawson, et al., 2010; Cook, 2011; Merkies, et al., 2014; Carmichael, et al., 2014; Starling, et al., 2016).

Horses use an assortment of vocal and non-verbal body-based actions to communicate including the noises they make, ear positions, facial expressions, use of head and leg gestures, and tail movements to subtly (and sometimes not so subtly) convey feelings, thoughts, and emotions (Hill, 2006; Waring, 2007; McGreevy, 2012).

This book cannot do justice to the depth of study and understanding ethologists have brought to equine communication and behavior (Goodwin, 1999; Brandt, 2004; Waring, 2007; Krueger, 2007; Warren-Smith & McGreevy, 2008; Goodwin, et al., 2009; McGreevy, et al., 2009; McGreevy, 2012; Henshall & McGreevy, 2014; Fureix, et al., 2015; Starling, et al., 2016). Providers of equine-assisted therapy should be trained to observe, interpret, and understand these critical communications. They are urged to pursue deeper investigation by reading books and research articles, and taking college or university courses.

## **Dominance**

Goodwin (1999) points out, “As horses can establish an enduring social order, reinforcing the dominance relationship between individuals is of comparatively low importance and this must have implications for the human-horse relationship” (p. 17). For many years, horse people asserted that dominance over horses and the horse’s corresponding submission was necessary to safely interact, but more in-depth scientific study shows this is not the case (Goodwin, 1999; Goodwin, et al., 2009; McGreevy, et al., 2009).

In fact, the concept of dominance is generally misused when transferred from humans to horses. In ethological terms, the term “dominance” relates to how horses use social structure and behavioral strategies

to reduce the likelihood of violence and aggression between herd members (Waring, 2007; Henshall & McGreevy, 2014). Horses use ritualized posturing to assert themselves rather than engaging in actual acts of violence (Kaufmann, 1983; Henshall & McGreevy, 2014). Conversely, the human concept of dominance includes the use of controlling and aggressive actions with the intent to be viewed as more powerful than others, resulting in their submission. This is commonly misconstrued by humans as leadership.

When humans exert their type of dominance over horses, the horse is likely to understand the behaviors as aggression, and react by attempting to flee, using submissive (or appeasing) behaviors, avoiding, or in less frequent cases, responding with aggression. As Goodwin (1999) states, “If human individuals repeatedly attempt to reinforce their dominance over the horses in their charge, it should be recognised that the natural equine response is avoidance” (p. 17).

Leadership in horse herds is generally left to a female (mare), who typically uses a non-aggressive style to guide her herd to food and water and away from danger. In free-ranging herds, horses rely upon kinship, and they respect one another’s space, thereby decreasing the need for shows of dominance (Goodwin, 1999). Use of aggression (when not a life-saving act) or controlling behaviors similar to the human construct of dominance are usually only exhibited in young horses or in bachelor herds.

In observing horse herds, one can watch as the herd (including the lead mare) distances from aggressive horses, preferring the company of those who respect their space, and don’t push or chase them. This has implications for the horse-human relationship.

### **Fight, Flight, Freeze, Appease**

Horses evolved as prey animals who rely primarily upon their ability to flee from predators to keep themselves safe (Starling, et al., 2016). The sympathetic nervous system alerts the fight, flight, freeze, appease pattern, and this system is activated when the horse feels fear, stress, confusion, or pain (Starling, et al., 2016; McDonnell, 2016). The first stage of this pattern is freezing, or ceasing all motion to check out the potential danger and assess what action is necessary. From this point, the horse may choose to submit (appease), run, or fight.

Humans activate the fight, flight, freeze, appease response when using certain training or engagement activities, particularly when they chase, confuse, or corner horses who cannot escape from the pressure. Horse trainers commonly use this as a way to assert their “leadership” or dominance over the horse, which leads to the horse’s submissive or appeasing behaviors. In many cases this is considered a positive or effective way of bonding, communicating, or humanely interacting with horses (Henshall & McGreevy, 2014).

Henshall & McGreevy (2014) provide a description of “round penning” and an explanation provided by horse trainers as to its use:

The horse is released into the round pen and is first chased away from the trainer by the application of aversive postural and auditory stimuli which elicit flight responses in the horse. This action is explained as the trainer assuming the role of the herd leader or alpha mare by banishing the horse from the protection of the “herd” or acting as a predator.  
(p. 3)

They go on to describe how the trainer forces the horse to “move its feet,” as a technique to demonstrate higher social status or dominance over the horse. This activity is ceased when the horse lowers its head, turns inwards, and “licks and chews.” These behaviors are described as “The horse showing respect for the trainer and signaling its desire to return to the vicinity of the trainer or safety of the herd” (Henshall & McGreevy, 2014, p. 3).

The researchers point out concerning flaws with this method. They remind readers that in the wild, “Chasing is usually of short duration and, during resource contests, usually ceases once sufficient distance between members of the dyad is achieved” (Henshall & McGreevy, 2014, p. 7). In a confined space like a round pen or arena where the horse cannot escape, horse trainers might chase the horse or require it to remain in a flight response for up to 15 minutes. Since the horse cannot remove itself, or gain sufficient distance from its pursuer, the sympathetic nervous system is triggered just as if the horse were experiencing a prolonged chase by a non-human predator.

As Dr. Leslie Steward points out, humans respond differently to a stressed or fearful animal and a calm and relaxed animal (Steward, 2017). In equine-assisted therapy, even if the human is told by the horse expert or therapist that the chasing activity is healthy and normal, the patient may respond to the horse’s stress or fear by simultaneously experiencing discomfort or anxiety.

Equine reactions to stress are commonly misinterpreted by humans. Probably one of the most misunderstood is the licking-and-chewing response. Licking and chewing reflects a change in the autonomic nervous system, which results in salivation (Goodwin, 1999; McDonnell, 2016). For example, if a horse has been operating in a sympathetic state (fight, flight, freeze, appease) and the fear or pressure diminishes or is relieved, the horse will revert to a parasympathetic state (rest and restore). This transition stimulates the salivary glands, and results in licking-and-chewing, and sometimes swallowing (Goodwin, 1999; McDonnell, 2016). Yawning and stretching may also be attributed to the change between sympathetic and parasympathetic states.

Henshall & McGreevy (2014) suggest that licking and chewing during activities like round penning “may be of physiological [rather] than

communicative origin and they constitute evidence of stress in the horse undergoing the technique” (p. 8). According to Warren-Smith & McGreevy (2008), “Head lowering and licking-and-chewing may also simply be a reflection of the physiological response to the presence of a potential predator” (p. 287).

McDonnell (2016) states:

You asked whether this licking or chewing might mean processing. I have heard trainers comment at this moment that the horse is “chewing on a thought.” It is usually in the context of working a horse by running it around in a round pen or pestering a horse to load into a trailer, then stopping to take a break and saying, “He’s thinkin’ about it.” Whether scared or confused or excited from the running around or the trailer loading, the horse is in sympathetic mode.

(para. 5)

Goodwin’s (1999) research supports this statement. She suggests, “Licking-and-chewing may therefore prove to be a displacement activity or comfort behaviour, associated with conflicting motivations in the horse” (p. 18).

Evoking the fight, flight, freeze, appease response in horses is unlikely to do what horse trainers and others working with horses hope it will. In fact, according to Warren-Smith & McGreevy (2008):

The benefits of chasing horses, especially in confined spaces, have been questioned (McLean, 2003) as it may serve only to enhance the flight response, which in the interest of safety should be avoided in all handling of nonhuman animals (Gonyou, 1995).

(p. 287)

A majority of equine-related injury research supports Warren-Smith & McGreevy (2008), showing that accidents are more likely to occur when a horse is confused or afraid (Ball, et al., 2007; Hawson, et al., 2010; Merkies, et al., 2014; Starling, et al., 2016). Hawson, et al. (2010) report, “This study also found horse behavior to be the most significant factor in horse-related incidents and that the majority of case reports alluded to the horse showing a fear response” (p. 325). Starling, et al., (2016) agree, stating, “Research has suggested that horses displaying a fear response (either flight or fight) features prominently in horse-related injuries to humans” (p. 8).

Horses (like all animals) learn the most effectively from positive reinforcement. When horses feel safe, they can be curious and investigatory, and this leads to lasting behavioral change (Waring, 2007; Starling, et al., 2016). Training and interaction techniques that foster curiosity, investigation, and a sense of security and safety lead to long-lasting positive

outcomes for both horses and the humans who engage with them. As Waring (2007) points out:

When a horse is in an approach-withdrawal situation, fear can prevent or impede close investigation. Avoidance is typical. Thus an anxious horse may be repelled by slight or even imaginary barriers, such as a pool of water or an open doorway; whereas, when calm the same horse may approach, investigate, and proceed without incidence.

(p. 95)

Conversely, if a horse experiences fear, trauma, confusion, or pain, specific neural circuits in the brain are activated that shifts the brain into fight, flight, freeze, appease mode. This causes the horse to be less receptive to learning, and more reactionary to future negative stimuli (Starling, et al., 2016). Even if the horse is appeasing and submissive, and responds by doing what the human requests, if he/she is acting out of fear, whatever lesson the human is trying to instill will be harder (if not impossible) to recall in different circumstances.

The Five Freedoms expressly state that animals should be free from fear or distress. It seems clear from all the research that activities which include pushing, chasing, cornering, or confusing horses induce the fight, flight, freeze, appease response. Equine-assisted therapy professionals are urged not to use these types of activities, and rather develop other means of engaging with horses that do not trigger this fear-based response.

## **Responses to Physical or Emotional Distress**

Detecting physical pain in horses has been a growing concentration of research over the past decade (de Grauw & van Loon, 2016). Currently, assessment of facial expressions in horses seems to be a promising way to understand equine pain (Dalla Costa, et al., 2014; de Grauw & van Loon, 2016). Physical pain is difficult to assess even in other humans (Wenholz, 2004), and each individual human or animal has its own experience of pain which can make it hard to objectively assess. Horses are known to be stoic about pain, which can lead to further complications with detection and evaluation.

That being said, objective assessment is possible, and providers of equine-assisted therapy are urged to research the topic of equine assessment thoroughly and work closely with their veterinarians to develop objective assessment tools to use with their horses. A checklist of possible evaluation criteria is included at the end of this section. Providers are urged to establish a baseline for what “healthy” condition is for each horse, and then use the assessment regularly to evaluate their horses.

Emotional distress may be easier in some ways to evaluate, but more difficult for owners to accept. Studies have found that horses suffer from

depressive symptoms due to an unhappy work environment, chronic stress, physical pain, or social isolation (Hausberger, et al., 2009; Fureix, et al., 2015). One study investigated how the work-related stressors of interpersonal conflicts, suppressed emotions, and physical constraints negatively impact a horse's mental state leading to behavioral problems (Hausberger, et al., 2009).

Hausberger, et al. (2009); McGreevy (2012); and Fureix, et al. (2015) report that horses who are under emotional distress are likely to present in a number of ways, from appearing withdrawn or depressed to engaging in stereotypic behaviors like cribbing, weaving, head shaking, tongue play, licking, wood chewing, pawing, kicking, or biting.

Assessing physical or emotional distress in horses comes down to knowing how to observe horses, set aside ego or personal agendas, and ask for help from a knowledgeable horseperson who does not spend time with the horse or horses in question. Outside assessment is key to evaluation, but the owner or caretaker must also be willing to consider the feedback provided.

The following criteria are important when assessing physical or emotional distress:

- Is the horse's temperature, pulse, and respiration (TPR) and capillary refill time (CRT) normal?
- What is the horse's body condition score? Is it in the normal range between 4–6? If not, what action needs to be taken?
- Is the horse eating, drinking, defecating, and urinating too much or too little?
- Is the horse redistributing weight frequently between his/her feet? Can the horse stand comfortably on all four feet, or is it shifting its weight and holding its body strangely?
- Is the horse obviously lame on any of its feet? Can the horse turn in a small circle and walk out sound? Is the horse sound at all gates? Is the horse sensitive to different types of footing?
- Does the horse move away from pressure exerted on his/her back?
- Are there signs of swelling or heat anywhere on the horse's body?
- Are there obvious wounds or other injuries?
- Is the horse laying down more or less than usual?
- Can the horse get up and lie down easily?
- Does the horse have normal gut sounds?
- Is the horse pawing the ground or biting at his/her barrel?
- Are the horse's eyes bright or dull?
- Are there wrinkles around the horse's eyes and corners of the mouth?
- Do the horse's ears go alert when something enters its space or can be seen from a distance?
- Does the horse seem excited by or interested in novel stimuli?
- Is the horse acting more agitated or aggressive?

- Is the horse isolating from others?
- Does the horse seem withdrawn or “shut down”?
- Is the horse displaying stereotypical behaviors like cribbing, weaving, head shaking, tongue play, licking, wood chewing, pawing, kicking, or biting?

## **Respecting and Responding to the Needs of Horses**

Human behavior has a direct impact on equine welfare (Lesimple, et al., 2010). This statement may sound simplistic and obvious, but it is important. Horse owners and caretakers make choices on a daily basis that impact the wellbeing of animals under their care.

Opinions abound in the horse industry regarding how to care for horses. It seems nearly every horseperson has a different approach, and believes their way of caring for horses is irrefutably correct. Once again, the scientific study of ethology is useful in developing and measuring humane horse care practices with less personal bias or opinion. The Five Freedoms also provide a general guideline to consider the essential components of equine welfare.

Providers of equine-assisted therapy have a vital responsibility to ensure that the horses they work with are physically and emotionally fit and able to engage in ethological behaviors that are inherent to the long-term health and wellbeing of the species.

### **Horse-Horse Companionship**

Wild or feral horses rarely if ever live alone, as they rely upon each other for survival. They live in highly structured and stable matriarchal family groups or bachelor herds (Goodwin, 1999; Waring, 2007; McGreevy, et al., 2009; Henshall & McGreevy, 2014) and form long-lasting relationships with the other members of the herd.

Horses also develop “pair” bonds, in which two horses spend most of their time together, grazing, mutually grooming, playing, and resting (Goodwin, 1999; Waring, 2007). Horses enjoy engaging in all manner of comfort behaviors, many of which rely upon horse-to-horse relationships and the freedom to move.

Providing horses with the space to move freely and the time to be alone together without human contact is a critical aspect to equine wellbeing.

### *Grooming*

Horses groom themselves and each other frequently. They use licking, nibbling, rolling, or itching themselves with their teeth or hooves or against a hard surface or tree branch (Waring, 2007). They seek out different areas

within their environment to conduct some of these behaviors. For example, on a hot day, a horse might seek out a muddy, sandy, or otherwise cooler area to roll in, whereas after a cold night they may choose a nice patch of grass to lay down, roll around, and sunbathe. It is common to see horses do a full body shake once they have completed their grooming rituals. Many times, when one horse is rolling or sunbathing, a companion will stand watch to alert for danger.

Mutual grooming is common between horses, and usually involves standing face to face and using teeth to scratch around the withers, shoulders, back, or rump. One of the obvious purposes of mutual grooming is that it accesses parts of the body the horse could not easily reach by him/herself.

Humans can engage in the grooming process by using tools or their hands to rub or scratch the horse's body. Of course, each horse responds to grooming differently, and it is important to learn how individual horses like to be touched and groomed. Some have very sensitive skin, and don't enjoy touch in the same way as others.

Observing horses in a herd environment helps humans better understand which horses like contact, where they like to be touched, and how they communicate when something feels good or bad. Respectful trial and error is also important in developing human-horse grooming rituals. In some cases, humans assume all horses like grooming, and think it will foster deeper bonds. But, forcing a horse to withstand an activity that is uncomfortable or unpleasing to him/her is unlikely to foster a sense of connection or deepen the relationship. Instead, respectfully listening to the responses and reactions of the horse, and finding ways to adjust the activity to make it more comfortable for the horse will probably produce more positive outcomes.

### *Play*

According to Waring (2007), "Play behavior seems to have a major role in the behavioral, social, and physiological development of equids" (p. 83). Horses play in a number of different ways. They run, buck, swerve, jump, hop, paw, strike, and kick. They may also pick up items in their mouths like brooms, hoses, or loose items laying around, or try to manipulate things with their mouths like door latches, light switches, or hooks. When they play together they rear, chase, nip, play fight, or run around just enjoying the fun of a good gallop. Horses need the space and opportunity to engage in these playful behaviors.

Although some humans believe they can effectively "play" with horses, this thinking is likely to be dangerous or at the least, confusing to horses. People are not horses, and although both species can come to understand each other, pretending to be a horse is not an effective way to communicate or engage with horses (Brandt, 2004; McGreevy, et al., 2009; Goodwin, et al., 2009; Henshall & McGreevy, 2014).

Although there is a proliferation of “games” that humans are taught to “play” with horses, the reality is these games are for humans, and are really training techniques or scripted ways for humans to engage with horses. The best way humans can support play in horses is to simply allow them to be horses, giving them plenty of space and time to be loose with other horses without human interference in a safe environment where they can play as much as they like.

## **Movement**

Horse herds travel between various environments throughout the year based upon weather conditions and grazing opportunities (Waring, 2007). Depending on the season, they may spend more or less time eating, moving, or resting, but according to Hampson, et al. (2010), horses in the wild are likely to roam between 5–18 miles per day.

McGreevy (2012) adds additional detail, suggesting that free-ranging horses are likely to spend approximately 60% of their time eating, 20% standing, and 10% laying down (p. 18). This is very different from stalled horses, who spend 65% of their time standing, 15% laying down, and 15% eating (McGreevy, 2012, p. 18).

The freedom to move over distances is essential to equine wellbeing. Movement allows the digestive process to work naturally and mobilizes all other physical functions. Horses also use movement to seek sanctuary from weather, predators, and pests like biting flies and mosquitoes. Horses will abandon grazing territory simply to avoid the discomfort caused by these pests, sometimes traveling many miles to do so (McGreevy, 2012).

It is no wonder horses who are stalled or contained in smaller paddocks, arenas, or pens for long periods of time without adequate access to large turn-out (this means acres of space to roam), the companionship of other horses, and free-range feed develop stereotypical (or maladaptive) behaviors and health problems (Waring, 2007; McGreevy, 2012; Popescu, et al., 2014).

### *Shelter-Seeking*

Horses seek shelter from adverse weather conditions, and move between different types of environments based upon the weather. If it is hot, they will seek shade and water. If it is buggy, they will move away from water sources and seek windy, drier, or otherwise protected conditions. They will help each other by standing head to tail and swishing their tails to keep the bugs off of one another. If it is cold, they will turn away from the elements and huddle together or seek more substantial shelter if conditions worsen.

When horses are appropriated by humans, it is the humans' responsibility to provide ample shelter. This can come in the form of covered run-in shelters or stalls. It is important to understand the herd dynamic and provide

the appropriate amount of sheltered space. Horses who are higher on the social hierarchy may not allow horses lower in the social order to enter sheltered space. This can cause emotional stress and increase health risks for those horses, especially if they are older or sickly.

### *Exercise and Conditioning*

Although there are a number of papers detailing optimal equine characteristics and selection for equine-assisted therapy (Anderson, et al., 1999; Ciesla, 2007; Matsuura, et al., 2008; Pluta, 2009; Moisa, et al., 2012; Pawelec, et al., 2014; Łojek, et al., 2015), there is a paucity of peer-reviewed research articles exploring the importance of exercise and conditioning for equine-assisted therapy horses.

This is unfortunate, as horses who work in equine-assisted physical, occupational, or speech therapy programs that offer hippotherapy, or any other program that offers mounted activities without an emphasis on proper riding position, are routinely expected to carry riders who are unbalanced and whose movements may alter the natural pattern of the horse's gait. In order to handle this disruption, horses must compensate by adjusting their stride and holding their bodies differently.

Lesimple, et al. (2010) studied the effects of riding technique on levels of pain in horses. The researchers state, "This set of data [implied] that improper riding postures may have a strong effect on horses' postures at work that may also lead to chronic vertebral problems" (p. 6). They learned that unbalanced, novice riders could induce "chronically altered welfare" (p. 6) if the riding instructor did not teach the student how to control their body posture.

These researchers also report that horses who are most negatively affected move with high, hollow necks. This causes chronic pain, and can lead to a variety of problem behaviors as well as depressive emotional states (Hausberger, et al., 2009; Lesimple, et al., 2010; Fureix, et al., 2015).

One of the remedies to this problem is exercise and proper conditioning conducted by an expert rider who is highly trained and knowledgeable (de Oliveira, et al., 2015). This regime should include stretching and bending, and encourage lateral flexion, head lowering, and long-loose strides. Strength- and endurance-building exercises are also important, as are fun outings in which the horse can experience new scenery and do something different (e.g. going on a trail ride, participating in a horse show, etc.). These types of off-site activities can help keep therapy horses fresh and engaged.

Ideally, horses used for hippotherapy or any other type of equine-assisted therapy that includes mounted work should be physically and emotionally fit, of prime age, supple, strong, and of a size, breed, and confirmation that can comfortably handle carrying unbalanced weight. Many programs that offer hippotherapy ensure their horses are fit and conditioned, since

the quality of the horse's movement is a key therapeutic tool. But, in the case of adaptive riding programs and some equine-assisted mental health programs, these vital characteristics are not as commonly found. In many cases, horses are donated, and may be elderly, slightly lame, suffer from past traumas, and not in the best shape. Furthermore, volunteers may be recruited to exercise these horses who are not expert riders and may receive limited, if any, professional instruction.

Even for programs offering equine-assisted mental health, exercise and conditioning is very important. Just as with any human working in the helping industry, therapy animals need respite. They need a break from dealing with people's emotions and, just like people, exercise is a powerful remedy. Using their brains and challenging their bodies in different ways can help therapy horses by reducing the effects of stress on the body and the mind.

## **Sleeping, Eating, and Drinking**

Since resting, eating, and drinking consume a great deal of the horse's daily life, these pursuits are important to understand and properly attend to. Horse caretakers commonly disagree upon the best practices for attending to these needs. In many cases, the opinions they hold are not based upon ethological knowledge, nor are they tempered by an understanding of the effects of domestication on the species. Furthermore, each horse is an individual with different needs and likes. In order to provide the best care possible, all of these factors must be taken into consideration.

### *Sleeping*

In a pastured or free-ranging environment, horses sleep approximately 4–5 hours per 24-hour cycle. The majority of this time they stand up, although most horses lay down to sleep at least once per sleep cycle, and may spend up to 60 minutes in this position (Waring, 2007).

In a stalled environment without access to free-feed, horses are more likely to sleep longer, and lay down more. There are positive and negative aspects to this, and as Waring (2007) points out, every horse is different in his/her sleep needs. Each individual horse has a different sleep pattern. Some may be more comfortable sleeping at night while others prefer to sleep during the daytime. The season also plays an important role in sleep patterns. Waring (2007) notes that researchers have observed horses are less likely to lay down and more likely to graze during the nighttime than cattle or sheep.

Providers of equine-assisted therapy require their horses to be awake and alert for good portions of the daytime. It is important that horses get enough rest and relaxation time, as well as time to play, groom, and exercise. Thus, caregivers should carefully observe their horse herds, and

determine how the horses function best given the constraints of working. This may take a process of trial and error to determine when they rest the most and best, and when they socialize, graze, play, and groom. This schedule may have to be adapted seasonally to account for changes in weather and daylight.

It is recommended by this author that providers of equine-assisted therapy have both stalls or private pens, and group turn-out spaces for horses to choose between. If stalls are provided, adequate bedding material is essential, as is proper hygiene and stall-cleaning practices. Some horses enjoy the security of a stall or private pen for portions of the day or night, while others may prefer to remain outdoors. Having private spaces for horses allows caregivers to monitor water intake and feed special supplements or medications as necessary, and it can give horses the opportunity to rest, relax, and eat unhindered if that is something they need or enjoy.

Generally, horses are clear communicators, and will make their needs heard. The best way to gain an understanding of the wants and needs of horses is through careful observation. For example, during summer, horses may want to come into their stalls or sheltered areas during the heat of the day to rest and escape the sun and the bugs. They may enjoy getting turned out later in the evening and lingering in pasture as the temperature cools. During the winter months, the horses may be at the pasture gate as soon as it gets cold, wanting the warmth of their stalls. Responding to the horses as individuals is likely to improve the overall wellbeing of each horse and the herd as a whole. Just like people, no one shoe fits all.

### *Food and Water*

Horses in feral or pastured environments spend approximately 70% of their time foraging for food (McGreevy, 2012). They tend to graze in cycles of three or more feeding periods per day, with long breaks between each cycle, and the most grazing occurs in the morning and early evening (Waring, 2007).

Typically, they maintain themselves on a high-fiber, low-protein diet that includes grasses and legumes, but they will resort to eating roots, herbs, shrubs, aquatic plants, or branches and twigs as necessary (Waring, 2007). This is in stark contrast to horses in a controlled human environment who spend approximately 10% of their time foraging (McGreevy, 2012), and are likely to eat a higher-protein diet.

It is important to note that foraging is not the same thing as free-feeding. Foraging requires the horse to move frequently or even constantly while seeking food, sometimes traveling long distances in a day. During this process, the horse may eat a variety of food types, some of which are higher or lower in fiber and protein. Recently, there has been a movement among horse owners or caretakers to provide free-feed for their horses in an attempt to mimic the feeding patterns of horses in the wild. In order for

this to work effectively, the horse must have the space, and be motivated to move while eating, and the type and quality of the hay must be carefully considered. If these factors are not attended to, horses are likely to overeat and suffer the physical consequences of obesity and may even develop laminitis, a very painful hoof condition.

Horses digest their food the most effectively when their heads are down at ground level as in a natural setting, and they like to be able to see and hear and move their ears while eating (Waring, 2007). The design of many of the feeders commonly used in the horse industry are contrary to the ethological preferences of horses. If they have to stick their heads into a feeder that is against a wall, or even free standing, they cannot comfortably see and hear and move their ears, and in many cases, their necks are elevated above the ground.

Horses also may like to dunk their feed in water to moisten it, particularly if it is dry forage. Although some caregivers believe water should be separated from feed, thereby motivating the horse to move, others feel water should be provided in close proximity so the horse can dunk its dry forage.

Common horse knowledge suggests that horses drink between 5–10 gallons of water per day. Horses are more likely to drink temperate or warm water over very cold water (Waring, 2007). In cold weather climates, heated water buckets can encourage water consumption, and in hot weather climates having ample access to fresh, clean water is very important.

Horses whose movement and feeding patterns are the farthest from what they would experience in nature may develop a myriad of health and behavioral problems including weight gain or loss, digestive issues, a tendency to colic, wood chewing, eating feces, licking salt, or excessive water consumption (Waring, 2007).

## **Healthcare**

As stated in the beginning of this chapter, one of the Five Freedoms is the freedom from pain, injury, or disease. Horses who work in equine-assisted therapy programs have a right to speedy and effective care, as well as regular and ongoing wellness services.

Horses who are in pain should not be asked to work and the cause of their pain should be identified, remediated, or remedied if possible. All effects should be made to keep horses physically and emotionally healthy and fit.

### *Veterinary Care*

Horses should have routine veterinary care at least once a year (twice for horses over 20 years of age) that consists of a wellness checkup, a dental exam, and any necessary vaccinations.

Wellness checkups usually include checking the horse's vital signs; determining body condition score; assessing movement; checking the condition of the hooves, feet, and legs; looking for abnormal lumps, growths or skin problems; and an appraisal of the nervous system (Loving, 2008). Veterinarians will also frequently inspect the horse's living conditions and discuss diet, nutrition, exercise, and socialization with the owner or caregiver.

Horses are vaccinated annually or biannually for a variety of diseases. Common vaccinations include tetanus, equine encephalomyelitis, influenza, rhinopneumonitis, West Nile virus, strangles, and Potomac Horse Fever (American Association of Equine Practitioners, 2016).

Historically, veterinarians recommended de-worming 4–6 times a year, with seasonal changes. More recently, however, vets are supporting fecal testing to detect for parasites. This approach is far more targeted and specific to each individual horse, and can be significantly less taxing on the horse's system. It is important to discuss these options with a veterinarian to make the best choice given geographical region and the horse's lifestyle. Some horse owners or caretakers who believe in “natural” care choose not to de-worm at all. This is a dangerous mistake. According to the University of Minnesota, studies show that 80% of colic cases are associated with parasites (Wilson, 2016). Beyond colic, parasites can make horses extremely ill, and if untreated can lead to the contamination of other horses.

### *Dental Care*

Just like humans, the health of a horse's mouth is of great importance to their overall health. If a horse is experiencing tooth or mouth pain, he/she may become irritated, aggressive, or withdrawn. All veterinarians are trained in basic dental care, but some have specialized in dentistry, making them a better choice for more serious concerns or procedures.

Horse teeth are different than human teeth. A horse tooth will continue to emerge or “erupt” (commonly misconstrued with growth) until the reserve crown beneath the gum is exhausted. Usually this happens once the horse is around 20–25 years of age (Taylor Veterinary Dentistry, 2016). In the wild, horses forage approximately 70% of the time (McGreevy, 2012), and tooth eruption evolved accordingly. When horses are stalled and don't forage, the erupting teeth cannot be controlled naturally. Thus, horses must have their teeth “floated” (ground down) at least once a year.

Other tooth- and gum-related problems may cause horses pain and suffering, and should be diagnosed and treated as quickly as possible. Signs of tooth or mouth issues can include head tossing, bit-resistant behaviors while riding, a change in food intake, and sensitivity around the head and face.

### *Hoof Care*

Domestication has altered equines in many ways, and the structure and shape of horse hooves is no exception. Each breed of horse and each

individual horse within those breeds have different hoof care needs, but all horses rely upon their hooves to exist, and they can experience a great deal of stress if their feet are in pain.

Ideally, horse hooves are balanced in order to work effectively without causing pain and discomfort. In the wild, horses move between 5–18 miles per day (Hampson, et al., 2010) through varied terrain and are not responsible for carrying humans. This, along with their diets, helps to keep their hooves in decent condition. If a horse is unable to keep up with the herd or flee from predators due to a problem with his/her hooves, the horse usually dies. When horses live in captivity, they commonly carry humans, and their lifestyle does not involve moving as many miles a day. Thus, their hoof care needs are different.

As stated previously, no two horses are alike, and thus their hooves should not be treated equally. Some horses may do very well being “barefoot” (without shoes), while others experience ongoing discomfort which can only be mitigated through constant attention to their feet or by shoeing. This can change seasonally, or may be based upon the type of terrain a horse moves across and what he/she is doing. Unfortunately, it is all too common to see horse owners become invested in “natural hoof care” practices, which includes the horse going “barefoot,” but not have the knowledge, skill, time, or resources to keep the hooves trimmed in a way that supports comfortable movement. This can lead to the horse suffering for the human’s philosophical beliefs. Owners are urged to understand the commitment associated with keeping certain horses “barefoot” and decide if this decision is realistic for their situation. If they realize it isn’t possible to invest the time or money needed, and the horse will do well with shoes on, it is recommended the owner choose that option. This is especially important for horses who are asked to work regularly in a therapy program.

As a general rule, horse hooves need to be trimmed every 6–8 weeks and the horse shoes replaced (Boyce, 2016). If the horse is barefoot, the trimming process is different and requires a specific skill set. Hoof walls and the sole of the horse’s hoof must also be tended to by applying moisturizer, creating mud holes for horses to stand in to help dry hooves, or removing the horse from moist environments and keeping them in drier areas if their feet are too wet. Diet also plays an important role in hoof health.

### *Complementary Care*

Providers of equine-assisted therapy commonly use alternative forms of healthcare for their horses. Examples include acupuncture, massage, chiropractic, aromatherapy, energy work, or other forms of body work. Herbs and supplements can also be used to help aid in the healing process, or provide daily support for horses.

Even though Dr. Allen Schoen was recognized in 2016 as one of the fifteen most influential veterinarians for his pioneering work in the field of integrative veterinary medicine, in his recent book co-authored with

Susan Gordon (Schoen & Gordon, 2015), he reminds his readers to be wary of anyone who markets their complimentary animal services as the “only” way to treat a problem. Non-veterinarians are not legally allowed to diagnose diseases or conditions, and these authors point out the importance of a collaborative relationship between complementary and conventional care.

As with every other category of horse healthcare, it is essential to remember that each horse is an individual, and will respond differently to healthcare approaches. Careful observation and setting aside personal biases or beliefs can help ensure ongoing equine wellbeing.

### *Hygiene*

The World Horse Welfare (2016) organization states, “One of the most important elements of protecting your horse and yard from disease is good hygiene” (p. 3). Hygiene is critical in maintaining the health and wellbeing of horses kept by humans. In the wild, horses have their own way of dealing with hygiene that cannot be replicated without acres and acres of space to roam. In typical human confinement, horses cannot maintain their own hygiene effectively.

According to the Kentucky Equine Research Group, “Horse farms had markedly fewer biosecurity [procedures designed to protect a specific population against harmful biological or biochemical substances] protocols in place than other animal operations, such as pig and cattle farms” (EquiNews, 2014, para. 3). This group notes that proper hygiene is essential to protect horses from the spread of communicable diseases such as ringworm, salmonellosis, strangles, methicillin-resistant *Staphylococcus aureus*, and other gastrointestinal and respiratory diseases.

Important steps to take to ensure good hygiene include once or twice daily removal of manure and urine from stalls, paddocks, or smaller enclosures and the addition of clean bedding material, and disinfecting and scrubbing water containers routinely, removing scum or algae buildup (World Horse Welfare, 2016).

Fly and pest control is also essential for the comfort and health of horses. Flies cause physical irritations, annoy horses, and carry bacteria that can lead to disease in horses (Texas A&M, Veterinary Medicine & Biomedical Science, 2012). As Waring (2007) states, horses in the wild will travel many miles to avoid flies and other types of pests. If horses are confined to small areas where they cannot escape to a different type of environment (forested, dry, windy, hilly, etc.), they cannot effectively manage the problem themselves. Fly mitigation strategies include the use of fly masks, fly sprays, and oral fly treatments. During the summer months or whenever flies and other pests are present, caretakers should make sure to protect their horses through the use of these preventive measures.

## □ Conclusion

Although horses and humans have been co-existing for thousands of years, humans still have a great deal to learn (and unlearn) about horses. The study of equine ethology provides probably the most unbiased understanding of equines because it studies horses in the wild, and compares natural behaviors to those observed in human-controlled environments.

The human desire to anthropomorphize—or place values, judgements, and human constructs—onto animals can both help and hurt the animals in question. The most important way to avoid the negative ramifications of anthropomorphism is to use well reputed scientific study of animals in their natural environments to temper the desire for assumptions. Through this process, humans can learn more about horses, and will be able to engage with them in healthier and safer ways, and take better care of them.

Providers of equine-assisted therapy have an ethical responsibility to ensure the welfare of their equine partners. This requires understanding them more fully, being able to objectively assess them, asking for help and support from outside sources, and responding appropriately to their needs.

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