

The 5 Domains Model and Equine Welfare

Welfare extends beyond preventing suffering to consider both negative and positive experiences

The Five Freedoms model long served as the gold standard for assessing animal welfare, emphasizing freedom from hunger, thirst, pain, and distress. As understanding of equine behavior and neuroscience evolved, however, the framework expanded beyond survival to consider how horses' experiences shape their overall welfare.

Justine Harrison, IAABC, ABTC-AAB, a certified equine behaviorist and educator based in northwest England, says the evolution of equine welfare goes beyond the basics of care.

"The Five Freedoms focused on preventing suffering," she says. "Avoiding harm is the baseline. In contrast, the Five Domains pushes us to look beyond the basics of care and consider what the horse experiences day to day. It's not enough to say, 'My horse isn't hungry, injured, or frightened.' We need to ask, 'Does my horse have a life worth living? Do they enjoy their life? Do they experience pleasure? Social connection? Rest? Choice?'"

The Five Freedoms

The Five Freedoms model largely focused on animals' physical condition, and Harrison says in the horse industry it led to improved equine treatment, care, and training.

With the first freedom, **freedom from hunger and thirst**, the caretaker must provide fresh water and nutritionally appropriate feed as well as consistent access to forage.

Freedom from discomfort speaks to the quality of a horse's shelter, including



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necessary protection from extreme weather and a safe place to rest and sleep.

Freedom from pain, illness, and injury has traditionally been associated with veterinary care. Today horse owners also

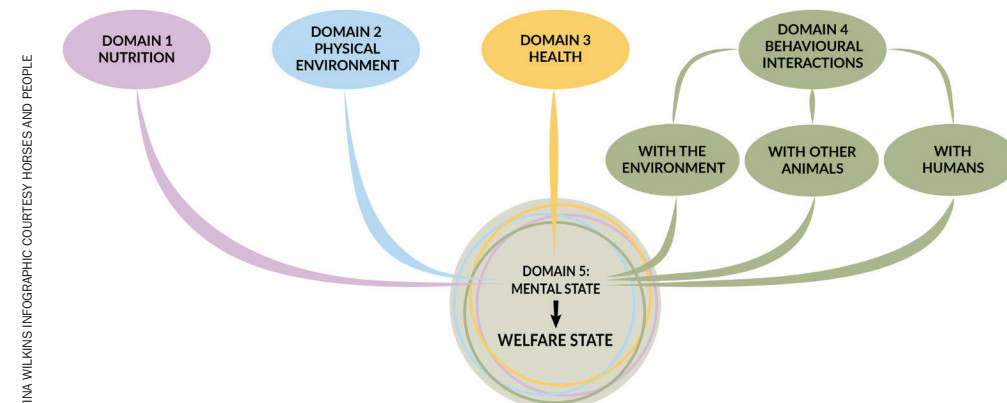
bear responsibility for safeguarding welfare through their daily management decisions.

The last two, **freedom to express natural behavior** and **freedom from distress and fear**, are the areas where human-herd interaction is often most compromised, says Harrison.

While practices such as blanketing are common, such habits might overlook a horse's thermoregulation system and run contrary to his biology.

"Many of our standard practices are based more on human comfort than equine biology," says Harrison. "When considering blanketing, we know that the majority of horses tolerate cold well, and fiber digestion

The 2020 Five Domains Model for animal welfare assessment and monitoring



In the Five Domains model, horse owners and other equine caregivers help ensure a horse's welfare.

generates internal heat. When we over-blanket, especially in mild weather, we can create heat stress, sweating, skin irritation, and pressure points."

Restricted stabling follows a similar idea. "Horses are designed to socialize, move, forage, and make choices throughout the day," Harrison says. "Confinement reduces movement, limits social contact, and can increase stiffness, frustration, and both mental and physical stress."

"A horse may look calm and quiet in a stable, but stillness does not necessarily mean comfort," she continues. "We often mistake quietness for well-being. A life worth living includes positive experiences—grazing and playing with friends, mutual grooming, rolling, exploring, moving freely, and learning in a way that builds confidence rather than fear."

Keeping horses stabled around the clock and restricting movement to training sessions or riding lessons alone not only inhibits their natural herd behavior but also endangers their physical and mental well-being.

Harrison reminds us that horses are inherently social animals. "Mutual grooming, synchronized grazing, shared movement, and play are not luxuries—they're regulatory behaviors," she explains. "They lower heart rate, buffer stress responses,

and support emotional and psychological well-being."

A herd also means safety for a horse. "Horses are more likely to rest and enter deeper sleep when friendly companions are nearby," she adds. "In free-living groups, individuals take turns being vigilant. Social buffering allows others to relax and sleep properly. We need to recognize that preventing physical contact with other horses is social isolation. For a species whose nature is built around herd living, that can amount to psychological deprivation."

The Five Domains Model

Cristina Wilkins, a PhD candidate researching the welfare outcomes of human-horse interactions at the University of New England, in Biddeford, Maine, suggests the Five Domains model has opened the door to a new mindset in the field of equine welfare. By flipping the passive language of the previous model to active voice, the owner and other equine caregivers become central participants in ensuring a horse's welfare.

"Instead of a horse being free of hunger, it becomes providing sufficient food," she says. "The whole point of the Five Domains is that the conditions that the horse is in, both external and internal, give rise to experience. Negative experiences are corrective mechanisms. They signal that a correction is

needed either through physiology or behavior. Positive experiences are signals that things are going well.

"It's opened the door to making welfare biologically relevant and relevant from the animal's perspective because at the end of the day, what matters to an animal about their welfare is how they feel," she adds.

Wilkins says that in her view, negative experiences remain part of the life of any animal, and they signal a necessary correction.

"A body senses that something is not going well, for its own viability, for its own survival, or for the function of the particular organ or tissue, which triggers a corrective mechanism," she says. "For horses, resolving negative experiences early enough and efficiently enough, and in a way that doesn't cost the body too much, and they don't intensify or become chronic, is the goal."

Within the Five Domains, a horse's agency means he can act on his experiences, with the animal an active participant in his own well-being rather than a passive recipient. Creating the kind of environment in which a horse can exercise his agency rests with the horse owner.

A co-author of the 2025 revision of the Five Domains model, Wilkins credits Five



Justine Harrison says many standard horse practices are more for human comfort.

Domains developer David J. Mellor, PhD, with continually incorporating emerging scientific evidence into the model, which he first introduced in 1994 and has revised seven times.

“David Mellor has been revising his model as new scientific evidence allowed him to say what he really wanted to say without being ridiculed in academic circles,” Wilkins says. “Instead of only talking about behavior and allowing horses to perform natural behavior, whatever that might mean, it focuses on what the animal is and what the animal is actually doing with that behavior. It’s the interaction.”

The Five Domains model places new emphasis on the horse owner’s role as an observer.

“I think you have to be curious and try to get into the horse’s head,” Wilkins says. “What would it be like to be a horse? What is it like for the horse to be in the paddock, or to be in the stable, or to be at a competition? You need to know where they came from and figure out how that particular horse became the animal it is. It’s a little bit like when we meet people. We start the conversation by wanting to know where a person comes from, and it helps us to relate to them and improve the interaction.”

The 5 Domains’ Application in Horse Training

The Five Domains model also influences how horse owners and professionals interpret behavior during a training session. Harrison says growing recognition of the science behind equine welfare has shifted attention beyond whether a horse complies to what that behavior reveals about the horse’s experience.

“Traditionally, the ideal horse complied—quiet, controllable, and predictable. In the past, a well-behaved horse was the goal,” Wilkins explains. “Today, we talk about agency and choice. We now recognize that behavior is not just about how a horse is trained or the outcome achieved. It also reveals the horse’s emotional state.

“A healthy, well-trained horse is responsive and engaged,” she continues. “They understand the cues, they can predict outcomes, and they remain curious and expressive. They might hesitate or question something new, but they stay mentally present. A shut-down horse also appears compliant, but for a very different reason. When pressure is inescapable, unpredictable, or overwhelming, some horses stop offering behavior altogether. They may become quiet and compliant. This can look like obedience, but it may reflect learned helplessness.



Tail swishing can indicate pain, fear, or confusion about what is being asked of the horse.

“We have to celebrate curiosity and the questioning approach,” Wilkins says. “The controversy about horse welfare can be healthy because it can raise many questions, motivate people to think about it, bring it up in conversations, and create more learning opportunities.

“I don’t think you can really apply the Five Domains model without considering the horse’s experience and the conditions that shape it, and how we are influencing that experience,” she adds.

The Five Domains model encourages horse owners and equestrian professionals to interpret behavior from the horse’s perspective rather than through human assumptions. In that framework behavior becomes information about the horse’s actual experience.

Harrison says that applying the Five Domains model begins with interpreting behavior differently.

“We need to recognize that behavior is communication,” she explains. “If a horse is behaving unusually, or not doing something we’re asking, our first thought shouldn’t be ‘A horse is being naughty.’ It should be, ‘Why are they behaving this way?’

“Horses often change their behavior because they are in pain, fearful, or confused about what is being asked of them,” Harrison adds. “Subtle signs such as facial tension, tail swishing, bracing or asymmetry, reluctance to go forward, avoidance of humans or other horses, or aggressive behavior are useful indicators.

“We now have a growing body of research on equine facial expressions, posture, and movement changes associated with discomfort, so I encourage owners to educate themselves about the subtle signs of pain,” she notes. “I hope we reach a point where success in training isn’t measured solely by how compliant they are, but also by their willingness and emotional well-being.

Does the horse feel confident? Do they understand what’s being asked of them?

Do they enjoy aspects of what they do?

Otherwise, what’s in it for the horse?”

Take-Home Message

The Five Domains model shifts equine welfare from simply avoiding suffering to actively supporting positive experiences, agency, and emotional well-being. Viewing behavior as communication rather than compliance challenges owners and professionals to ask if the horse is not only coping but also having his physical, mental, and social needs met. 🐾