



International Society  
for Equitation Science  
[www.equitationscience.com](http://www.equitationscience.com)

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## **How Do We Measure A Horse's Quality of Life?**

Astute horse owners realize that their horse's welfare is about more than having food, water and appropriate shelter. The horse's emotional well-being, also known as their quality of life, is an important piece of the welfare puzzle. However, it is unclear what measurements are accurate and reliable enough to help objectively assess this area of a horse's welfare. A group of researchers from the United Kingdom, New Zealand and Australia have teamed up to address this.

The researchers completed two systematic reviews of studies in horses. One review focused on identifying equine behaviours that could reflect the horse's mood and general well-being, i.e. how they feel. The other review focused on physical measures of equine emotion (e.g. heart rate). The initial results of these reviews were presented on August 19, 2019 at the 15<sup>th</sup> annual International Society for Equitation Science (ISES) conference held at the University of Guelph.

Natalie Waran, from the Eastern Institute of Technology, NZ, presented on the findings related to equine behaviour. This review included 75 publications. Some of the behaviours they looked at included: feeding behaviour, types of interactions with humans and other horses (e.g. were they friendly or agonistic), and interest in the environment. They found that these types of everyday behaviours, and responses to training, were the clearest indicators of a horse's emotional state. Waran adds "Examples of behaviours that indicated a positive emotional state were increased feeding behaviour, friendly social interactions (between horses and with humans) and interest in the environment. Examples of behaviours that indicated a negative emotional state were decreased feeding behaviour, negative social interactions, reduced interest in the environment and increased repetitive non-functional movement patterns". Waran concludes that "these behaviours should help form the basis of assessment criteria so that horse owners and carers can assess and improve the quality of life of the animals under their care".

Hayley Randle, from Charles Sturt University, AU, presented on the results from the physical measures related to a horse's emotion. Randle explains "Heart rate (HR), heart rate variability (HRV) and cortisol are the most commonly measured physiological indicators of equine emotion. Other suggested indicators include eye temperature, respiratory rate and salivary alpha amylase but many of these lack validation in relation to association with emotional state. There were methodological problems with all of the measures we looked at, such as the lack of standardisation of reporting and interpretation." She concludes "The physical measures of equine emotion looked at in this review revealed that these may have limited use when assessing horse welfare. A comprehensive set of measures that takes into

account the horses experiences at any one time is needed to assess equine welfare and his/her overall quality of life.”.

Kate Fenner, ISES council member, expanded on the importance of this presentation. “This research is an important step forward in equine welfare assessment”, she says, “We need studies like this that can help us identify consistent indicators of quality of life in order to build reliable welfare assessment tools that evaluate every domain of equine welfare.”

ENDS –

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Notes for editor:

The International Society for Equitation Science (ISES) is a registered charity (UK) that aims to facilitate research into the training of horses to enhance horse welfare and improve the human-horse relationship. [www.equitationscience.com](http://www.equitationscience.com)

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