Changing Understanding of Competition Horse Welfare: New Evidence

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Introduction

Horses are commonly trained for competition, but some training methods may compromise horse welfare (Hockenhull & Creighton, 2012; McGreevy *et al.*, 2012). Welfare refers to "the state of an individual as regards its attempts to cope with its environment" (Broom, 1986). Recently, it has been added when considering welfare, that it is not simply the biological functioning of an animal that must be taken into consideration, but also the "affective states", such as emotions, pain, suffering and frustration (Heleski & Anthony, 2012). This essay will focus on four studies published in the past year that investigated the impact on horse welfare of restraints, education, ethics and science in horse training. It will also highlight areas that may help to improve the welfare of competition horses.

Discussion

Current training methods can tend to emphasise restraining, and overlook the importance of training (McGreevy, 2011). A study conducted by McGreevy *et al.* (2012) investigated the use of double bridles and crank nosebands in five dressage horses, assessing their effect on face and eye temperature. Any piece of gear that restricts a horse's movement can compromise welfare. However, there is no specific advice on the fit of a noseband in the current Federation Equestre Internationale (FEI) rules. This study found noseband tightness corresponded to changes in eye and skin temperature. There was a significant increase in eye temperature and a significant decrease in skin temperature when the noseband was over-tightened. (Unless and until a standard gauge is used to measure the distance between the nose and the noseband, this crucial tightening will be left to the individual's more or less expert judgment). The researchers suggested that the change in eye temperature was a physiological stress response. This response was measured using the correlation with circulating cortisol concentration, as this has been established as an indicator of physiological stress in animals. The decrease in skin temperature may be due to a decrease in vascular perfusion caused by a constricting noseband. The results of this study show that the current rules in dressage are not robust enough to fully protect the welfare of horses in competition.

A study conducted by Visser & Van Wijk-Jansen (2012) suggested that to reduce welfare problems in horses, the knowledge and skills of horse enthusiasts must be addressed. Their survey identified four distinct clusters of riders and trainers that were separated by: level of knowledge, emotional involvement and application of knowledge to improve horse welfare. This separation indicates that people are involved in the horse industry for different reasons and so may have differing opinions on what constitutes good welfare. Further study into the clustering of approaches throughout the horse industry would allow for a better understanding of definitions and how best to address education. Another study by Hockenhull & Creighton (2012) found, through an internet survey, that when riders used a higher proportion of rewarding responses to overall behaviour, their horses had fewer generic ridden behavioural problems. These studies on rider education seem to show a link between the education and behaviour of the rider, and the response of the horse. This is an important link as the response of the ridden horse can be used as an indicator of welfare (Hall *et al.*, 2012).

The introduction of an ethical and values-based component may enhance equine welfare further (Heleski & Anthony, 2012). Equitation science looks at the use of objective measures in studying horse welfare. It may be appropriate, however, to recognise that science alone may not be enough. Science has an important role in providing sound, defensible data on animal responses in practice, but ethical decisions by the general community also help to determine acceptable welfare standards for animals. These decisions must be based on both moral values and scientific fact. Since equine welfare has come into the public spotlight (Heleski & Anthony, 2012; McLean & McGreevy, 2010), the concept of ethical equitation is gaining currency in the horse world. Ethical decision-making assessment tools, including ethical matrices and flow charts, are important starting points and a platform for continuing debate and assessment of this topic (Heleski & Anthony, 2012).

These studies highlight education and ethics as important areas for improving the welfare of competition horses. In a study by McGreevy *et al.* (2012) it was noted that education of the gear-check stewards at competitions may help to improve horse welfare. These stewards could be issued with standardised gauges to test the fit of nosebands and given authority to loosen nosebands they judge to be overly tight. This change could help to reduce the detrimental effects that were found in the study. Education of riders can also play a role in reducing the detrimental effects of poor training on horse welfare.

The study by Visser & Van Wijk-Jansen (2012) showed that horse enthusiasts are not a homogenous group of people, but separated into distinct groups. These separations highlight that education programs developed to improve horse welfare should be aimed at these groups and take into account emotional involvement, knowledge and daily practices of the riders. Science can be used to provide evidence for education of riders, while ethical equitation appears to be an important link between science and welfare (Heleski & Anthony, 2012). Exploration of this link may be important in evaluating if horses are truly tolerant of riders and training or if their behaviours are simply excellent manifestations of their abilities in habituation, associative learning or even learned helplessness (McGreevy & McLean, 2007).

Conclusion

New research shows that horses can show signs of stress when they are restrained in a way that limits their expression of natural behaviour. It is also evident that education of riders and trainers can improve horse welfare. These are good examples that indicate potential to improve horse welfare in real and implementable ways. However, for any of this research to make a difference, it must be incorporated into rider education and the rules and regulations of competition bodies to ensure that horse welfare is maintained at all levels.

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