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Does a commercial pheromone application reduce separation anxiety in separated horse pairs?

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Horses may display increased locomotory and vocal activity when separated from their preferred partners, which can increase anxiety levels and injury risk. This study evaluated physiological and behavioral evidence of separation anxiety in separated preferred partners, and the potential stress-reducing effect of Confidence EQ® (CEVA), a pheromone gel for intranasal application. Four strongly bonded horse pairs of various breeds were familiarized three times with Polar equine belts and the intranasal application of the product or a placebo. A Latin Square research design was used with complete randomization of separation combinations comprising 2 horses × 2 locations × 2 treatments. Baseline recordings of heart rate (HR) and HR variability were undertaken on pasture for one hour prior to separation. Both horses were given either a placebo or treatment thirty minutes before the one-hour separation (stall, pasture, with conspecifics). All sessions were videographed for behavioral analysis. MANOVA with pairwise comparisons was performed on standardized physiological or behavioral variables to test for location and treatment effects. There were no significant differences between treatments within separation locations (Z < 1.26; P > 0.05), or when comparing the physiological disparity between pasture and barn locations (Z = 1.76, P = 0.05). These results suggest that the pheromone does not profoundly reduce separation anxiety, but could potentially have potential for mitigation of the extremeness of anxiety, especially when separation involves relocation of horses to a novel environment. Further research with larger sample sizes for its use in increasing the safety of horse and handler during training of horses is needed.

Key words: equine; separation; pheromone; safety; welfare

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Accuracy of horse workload perception by owners when compared to published workload parameters

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A noted consequence of modern management of equeids is that obesity is becoming ever more problematic. Over-consumption of a highly calorific diet, coupled with an increasingly sedentary lifestyle, appears to be instrumental. In order to accurately provide a suitable ration, the weight of the horse, plus the workload they are in must be considered. The aim of this study was to compare the level of work a horse was in, with the perceived level of work that the owner attributed. A face-to-face survey was carried out with owners of 1,207 horses. Owners were asked to state the level of workload their horse was in, the levels being thus: maintenance, light, medium, hard and very hard work. Each owner was then asked how many times per week they rode/worked their horse; the length of time each bout of work lasted, and the type of exercise the work formed. Using this information, each horse was assigned to one of the previously mentioned five workload categories, based on the description of each category stated in NRC (2007). Data were analysed using a Mann-Whitney U (Wilcoxon rank sum) test via Genstat 14. It was found that data were significantly different (U = 446317.5, d.f. = 1206, P < 0.001), with the owner-perceived score being significantly higher than the actual score. It is therefore possible to conclude that horse owners in the UK significantly overestimate the amount of work that their horses are in, which may in turn, lead to over-feeding and confound the problems of obesity in the domestic horse population.

Key words: nutrition; workload; diet; owner perception; obesity

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An industry view of perception and practice of equine management in Canada

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In Canada, horse farms represent differences in geographic location, equestrian disciplines, breed, background and ownership with a wide variety of management practices that have a direct influence on horse health and welfare. Empirical data on the prevalence of management practices in Canada is lacking and comparing perceptions of optimal management to actual practices may point to areas where research and education are needed. An online survey compared perceptions of management practices from respondents who do not currently own horses (R; n = 708). RH reported horses are kept on 24/7 turnout more than R believe (59% vs 33% for RH and R respectively; χ² = 29.2, P < 0.001). While on turnout, RH reported that >80% of horses have access to hay/grass, shelter, water, minerals, and a mud free area but R believe only 30% of horses have access to all these resources (χ² = 4.66, P < 0.05). When stabled, 73% of horses have all-day turnout while R believe 56% have <4h/day (χ² = 36.1, P < 0.0001). These results point to a large discrepancy between the perception and the practice of keeping horses in Canada which may affect how horses are handled and trained.

Key words: horse; management; survey; perception; welfare

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Equines as tools vs partners: a critical look at the uses and beliefs surrounding horses in equine therapies and argument for mechanical horses

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Horses have their own unique status as therapy animals due to their function in both physical and psychotherapy. Current models of Equine Assisted Activities and Therapies (EAAT) utilize horses for a range of physical, psychological and learning therapies in order to benefit humans, often referring to horses as therapeutic ‘partners’. In order to fulfill certification requirements for existing models of EAAT, practitioners are required to study equine behavior through the belief systems currently modelled in the natural horsemanship...
community. Despite requiring knowledge in horse behavior, studies and anecdotal evidence suggests that horses used in EAAT commonly display confusion or escape behaviors, ‘burn out’ and/or display signs of depression. These behaviors could be a result of contradictions in the interpretation of equine behavior within the natural horsemanship practices or a lack of understanding and utilization of equine learning theory within the context of EAAT. This study looked at the use of horses for physical and psychotherapy in four leading models of EAAT: the Professional Association of Therapeutic Horsemanship (PATH), Equine Assisted Growth and Learning Association (EAGALA), Natural Lifemanship (NL) and Eponaquest. The study found that, although interpretation of horse behavior is considered critical in each model, there are no standards for understanding equine behavioral psychology within or between the models. Furthermore, the use of horses in physical therapy or as a rhythmic tool for psychotherapy suggests that there may be cause to develop mechanical horses that can produce the same physical benefits as horseback riding.

**Key words:** equine; behavior; assisted; therapy; welfare

### 61 Visual appeal of horses may be linked to human personality

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Equine-Assisted Therapy is becoming popular for treatment of humans with various mental health illnesses. The selection of the horse for therapy work may be important to the success of the treatment. This pilot study examined possible connections between human personality type and preferred choice of horse in terms of appearance. Participants not currently in therapy (n=37) completed a survey containing basic demographic information, horse experience, a personality assessment, and picture-based questions to sequentially choose between sets of pictures to create their ideal horse. Choices were made for size (pony, horse, draft), colour (black, bay, chestnut, grey, palomino, roan), facial- (blaze, star, snip, none), and leg-markings (sock, stocking, none). Horse size was preferred over draft or pony sizes (F_{2,7} = 10.45, P < 0.01). Roan or palomino horses were preferred over any other colour (F_{14,71} = 9.66, p < 0.01). Blazes or stars were preferred over no face markings (F_{3,7} = 6.22, P < 0.05). Humans self-categorized as a friendly personality preferred a roan horse with a blaze and white body patches, whereas shy human personalities chose either a roan, grey or palomino horse with a blaze and white body patches (\chi^2_{1} = 4.80, P < 0.05). It appears that the preference humans may have for particular horses may be based on visual characteristics which may allow for a more informed selection of horses for use in a therapy program.

**Key words:** horse; preference; visual appeal; human; personality

### 62 Exploring human-horse relationships in Australian thoroughbred jumps racing

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This study explores nuanced values and attitudes about horses held by participants of Australian thoroughbred jumps racing. The research question was “how do people describe their relationship with individual horses and what do they value about this relationship?” Twenty three semi-structured interviews, median duration one hour, were conducted with trainers, jockeys, owners, strappers and racing officials. Interviews were recorded and professionally transcribed for narrative analysis and coding of emergent themes using NVivo 10 (QSR International). Emergent themes included the horse as; family, companion, co-worker, competitor and athlete. Emotions expressed by participants included pride, trust, empathy, affection and love for individual horses as well as grief and grieving related to separation and or death. Behaviors indicative of conflict such as biting or bucking were frequently accepted and regarded as part of the relationship dynamic, both physically and emotionally, creating individuality in the horse-human relationship, rather than being perceived as conflict related behaviors. Such behaviors were regarded to be part of the horse’s ‘character’. Participant descriptions reflected tacit, personal and embodied knowledge of their horses. Participants used anthropomorphic language to express love and affection for their horses and to ascribe personality and agency to individual horses. There was limited understanding that some behaviors tolerated within the relationships and regarded as part of the individual horse’s personality were behaviors indicative of conflict, and therefore potentially affecting horse welfare. We suggest educating industry to better understand the significance and causes of such behaviors may improve longer term welfare outcomes.

**Key words:** Thoroughbred; jumps racing; human-horse relationship