Introduction

Welfare concerns regarding equidae predominantly relate to training-, management-, and health-associated practices. Recent studies have determined the most important current issues for equine welfare are fear and stress involved in horse use; lack of owner knowledge of welfare needs of horses; inability of owners to recognise pain behaviour; obesity and inadequate feeding practices; lack of turnout and lack of social companions; inappropriate drug use and poor disease prevention; breeding practices including abrupt individual weaning and over-breeding; trading and unwanted horses; transportation; and delayed euthanasia decisions (DuBois et al., 2018a; McGreevy et al., 2018; Rioja-Lang et al., 2020).

Horses are often classified neither as companion nor livestock animals and will commonly pass through several different homes during their lifetimes. They are kept for leisure, racing, and other competitive roles, used in tourism, for draft purposes, in therapy, for the meat and skin trade, for conservation grazing, and some subsist as feral horse populations. These roles carry different risks for horse welfare.

Training methodology

The International Federation for Equestrian Sports, Fédération Equestre Internationale (FEI) is the international governing body of equestrian sports including dressage, combined driving, endurance, eventing, reining, show jumping, and vaulting. The FEI requires all those involved in international equestrian sports to adhere to the FEI’s Code of Conduct for the Welfare of the Horse (FEI, 2013), “to acknowledge and accept that at all times the welfare of the horse must be paramount” and “must never be subordinated to competitive or commercial influences”. This Code advises that all stages of preparation, training, on-site competition, and post-competition fate should be guided by welfare concerns (FEI, 2013). Events under these disciplines unaffiliated to FEI do not fall under FEI remit. The FEI does not govern horse racing which is regulated by International Federation of Horseracing Authorities (IFHA), or polo, which is regulated by the Federation of International Polo (FIP). However, a partnership exists between the FEI and FIP and the International Horse Sports Confederation (IHSC) formally facilitates cooperation between the FEI and IFHA. The FEI, IFHA, and FIP
work in conjunction with the National Federation of each member country to regulate and govern equestrian disciplines. Despite steps taken to protect welfare of the horse by these and other organisations, horses suffer through many common and routine management and training practices.

There is growing awareness of arousal levels necessary for optimal learning and application of evidence-based ethical training approaches that can result in better welfare throughout a horse’s life. For example, King et al. (2019) report on the successful application of the International Society for Equitation Science (ISES) Ten Training Principles (ISES, 2018) to early training of thoroughbreds, and describe horses better able to cope with the preparation for the next stages of their career, and increased chance of a career after racing. However, many common unethical and inhumane handling and training techniques are in use today. These range from use and abuse of training devices, to training which does not allow the musculoskeletal system to adapt to strains of the discipline. Dyson’s (2021) ridden horse pain ethogram demonstrates behaviours which are at least ten times more likely in a horse with musculoskeletal pain, yet these same behaviours are often perceived as a sign of resistance and subsequently met with inappropriate responses.

Improper bits or improper use of bits can result in damage to the bars of the mouth, lacerations to the tongue or lip commissures, and compress tongue circulation. Aids such as spurs, whips, and side and draw reins are further tools of potential abuse. Analysis of the whip during racing has shown that the horses hit the most frequently, do not win (Arthur, 2011). British whipping rules recognise three legitimate uses of the whip; safety, correction, and encouragement. The British Horseracing Authority (BHA) has begun a consultation process on the use of the whip in the UK, with recommendations expected early 2022. Restrictive nose bands are associated with elevated physiological stress responses and increased prevalence of mouth injuries. They exert sustained restrictive pressures on sensitive tissues and may mask pain behaviours such as tongue movement and opening of the mouth, which may be performed to reduce oral pain resulting from bit pressure (ISES, 2019). Although virtually eliminated due to examination on exiting the ring under United States Equestrian Federation (USEF), United States Dressage Federation (USDF), and FEI regulations, protrusion of the tongue from the mouth – an example of perceived resistance – has in the past been managed by amputation of a portion of the front of the tongue, rather than addressing improper training techniques which resulted in pain or anxiety.

Excessive warm up length can mean that horses are unable to perform at their best in competition due to fatigue, and this can result in immediate corrective training which is likely to be ineffective or abusive. Excessive training or controlled exercise (e.g. lunging) is sometimes deliberately used to produce fatigue and compliance and give the appearance of calm behaviour desired in certain disciplines. Bleeding, marijuana, head tying high for several hours, placing a block of wood in a horse’s mouth (so they are inclined to keep their mouth closed afterwards) are other practices which are used to result in a calm, quiet appearance in the show ring. Some trainers deliberately withhold water and feed to intentionally cause dehydration and depression.

The practice of tail blocking is commonplace in the Western performance horse. A substance – usually ethyl alcohol – is injected around the nerves that supply the muscle that elevate the tail, to block movement of the tail which is considered undesirable. The practice may affect faecal retention and elimination and may cause severe sloughing of tissue and infection. Horses are left unable to perform a normal behaviour. Tail swishing may be present as a sign of pain or conflict behaviour when ridden (Dyson, 2021), and the false appearance of a compliant horse can hide aversive training and riding techniques. American Quarter Horse Association (AQHA) rules prohibit tail blocking. The American Association of Equine Practitioners (AAEP) has also
condemned this practice as unethical. However, horses with partial use of their tail continue to be successful in AQHA classes, which is a factor that drives continuation of the practice. The National Cutting Horse Association (NCHA), National Reined Cow Horse Association (NRCHA), and National Reining Horse Association (NRHA) have no restrictions on the practice of tail blocks.

Reining horses are commonly subject to a training practice termed ‘fencing’ whereby the horse is ridden at speed into a wall or fence to produce a desired effect of stopping with the hind legs under the body. Spinning is also common practice. Professional Rodeo Cowboys Association (PRCA) (2021) rules allow use of a livestock prod “when necessary”.

Use of devices that inflict pain if a horse hits a jump, e.g. jump rails with carpet tacks, wires strung across the jump (sometimes electrified) that the horse cannot see, ‘rapping’ or ‘poling’, a practice of striking the horse’s legs as they jump a fence in order to make them pick up their feet, are further welfare concerns. ‘Chemical rapping’ is a practice of sensitising lower legs with a skin irritant in an effort to make a horse less likely to knock jumps. Use of weighted or pressure boots in training to achieve hyper flexion of hind limbs on jump strides (to avoid knocking fences) may result in the horse ‘tipping over’ in a forward motion on landing. Trainers may use electric whips and spurs and ‘excessive’ use of conventional whips and spurs. Some horses trained in this manner may subsequently refuse to jump. When this happens the training may become even more abusive in attempts to force the horse to jump.

The effect of head and neck flexion on the welfare of dressage horses has received concern (ISES, 2015). FEI (2010b) re-defined “hyper-flexion/rollkur as flexion of the horse’s neck achieved through aggressive force”, as unacceptable.

High tail carriage, an arching neck and alert look, are desirable characteristics of the Arabian horse. Ginger – a mild chemical irritant – may be placed in the anus of the horse to encourage the tail to be held in a higher arch. ‘Whip training’ is a practice of hitting a horse in training with a whip until they poise with ears forward and a stretched, arched neck.

The Tennessee Walking Horse show industry desires an exaggerated high action forelimb step from horses. ‘Soring’ is the application of a caustic substance to the lower limb, or a mechanical device to the front feet, that result in pain such that the horse will alter their gait to relieve this pain. The practice of soring, although illegal, has continued unabated (Heird, 2011). The Prevent All Soring Tactics (PAST) Bill which was passed in the House of Representatives in 2019 aims to end the failed industry self-policing system, strengthen penalties, and ban the use of devices associated with soring not previously banned.

A common theme of these methods is the use of force and ignoring or underrecognition of underlying reasons for undesired behaviour. Unethical and inhumane training can lead to horses ultimately deemed unsuitable or dangerous and sent to sale, adding to the unwanted horse problem. While many of these practices are regulated at competition venues, their practice at home is more challenging to address, and public audiences have little awareness of the quality of the lives of the horses (Leitch, 2011).

**Management and husbandry**

Routine practices such as travel present welfare issues (McGreevy et al., 2018), such as sufficient space, ventilation, and restriction of head position, which may contribute to respiratory disease. Horseman et al. (2017) identify management practices such as stabling for extended periods and unsuitable environments, as major areas identified by stakeholders for improvement. Many elite horses live in stables the vast majority of the time. Others, such as those used for carriage driving and pregnant mares’ urine (PMU) production, are commonly held in tie stalls such that
they are unable to turn around. Gastric ulceration, airway, and various musculoskeletal problems may be attributable to predominant stable confinement (Mitchell, 2011). Since welfare encompasses not just physical but also social and psychological aspects, effects of stabling on these aspects should also be considered. Horses evolved to be herd animals and confinement negatively effects social interaction and stimulation. Confinement can produce stress and alter physiological functions. Stereotypic behaviour such as weaving, cribbing, and wood chewing may be seen (Henderson, 2007). Time budgets have been used to compare management regimes with free-living horse behaviour. For example, a domesticated horse may be well nourished, but may spend a third of the normal time eating therefore suffer boredom, and be unable to locomote, which over time could lead to prolonged stress (Kiley-Worthington, 2011).

The International Society for Equitation Science 2018 conference illustrated that some countries now legislate aspects of housing, such as minimum turn out times. Group housing is increasingly used to improve social contact available to horses. A major barrier to more widespread adoption of this practice is the belief it increases injury risks (Randle and Waran, 2019). Social learning is limited by common practices such as forced weaning, youngsters in same-age groups, and isolation, which can lead to inappropriate behaviour and the assumption that horses are unable to live in groups (Kiley-Worthington, 2011). Subsequently, interactions are limited or heavily managed. Mating is commonly enforced by physical restraint with straps around the mare’s legs and a twitch, justified to prevent injuries. However, socially educated equines allowed to court and cover freely have higher conception rates (McGreevy, 2012). Domestic breeding stallions are generally kept in isolation. In-hand breeding and semen collection are profoundly different from the normal ethogram (McGreevy, 2012). Preventing elements of stallion socio-sexual behaviour can contribute to handling difficulties.

Feeding

Genetics, life stage, environmental conditions, and level of exercise contribute to an individual’s energy requirement and propensity to gain weight. In natural circumstances, horses will spend up to 18–20 hours foraging. Natural behaviour is to eat and move concurrently, and horses will rest from eating for no more than 4 hours at a time. Many domesticated horses and ponies spend much of the day in confinement housing (stables and small pens). Daily energy provisions often exceed requirements with resultant weight gain. Ponies turned out to pasture for 24 hours may consume up to 5% of body weight per day and up to 1% body weight in 3 hours of pasture turnout (Longland, 2013); 2–2.5% satisfies basic requirements. Additional problems with weight gain may occur because many horses and ponies are provided access to ‘improved’ pastures aimed at promoting growth and fattening sheep and cattle. This forage likely has much higher nutritional value when compared to forage available in non-domestic conditions (Geor and Harris, 2013). Risks of laminitis (inflammation of laminae inside the hoof), equine metabolic syndrome, insulin resistance, pedunculated lipomas, and heat and exercise intolerance are increased by obesity (Geor and Harris, 2013). Restriction of feed intake – though necessary in obese horses – can result in stress, increase risk of gastric ulceration, and hyperlipaemia, and practices to prolong feed intake time are recommended (Geor and Harris, 2013). Management of malnourished horses requires attention to their physical and thermal comfort, identification of concurrent disease, and risks of re-feeding syndrome.

In the natural state, foals will suckle for 35–40 weeks in pregnant multiparous mares, and longer in primiparous mares. Intermittent suckling by the previous year’s foal may also occur when a new foal is at foot. Weaning is a gradual process. Enforced weaning prevents comfort responses between the mare and foal and therefore contributes to behavioural and physiological
stress responses displayed by both mare and foal (McGreevy, 2012). Foals weaned abruptly show greater signs of stress than foals weaned more gradually (McGreevy, 2012). An abrupt change of diet is thought to contribute to the distress of weaning. Pre-weaning creep feed may reduce weaning stress by provision of mineral content to help meet increased requirements of fatigue, trauma and infection often associated with weaning (Hoffman et al., 1995). However Waters et al. (2002) found foals given concentrate feed after weaning were four times more likely to crib bite than foals on grass-only diets. Appropriate change in gut microbiome composition at weaning is likely critical to the development and function of an appropriate stress response (Mach et al., 2017). Long-lasting effects of weaning method and age are likely to affect learning ability (Nicol 2002).

**Free-range horses**

Wild and feral horse protection primarily involves keeping population size in balance with water and forage resources. Foaling and population growth rates will only decrease once horses are suffering from starvation. Wild horse mares will continue to foal until body condition reaches 1 or 2 on the Henneke scale or until they are over 20 years old (Kane, 2011). Whilst natural predation keeps numbers in check in a few areas, most require some form of intervention.

The Bureau of Land Management (BLM) and the Forest Service (FS) are responsible for managing the majority of wild horses on public lands in America. Feral horse populations grazed on common land in the UK are owned by individuals. Most common welfare problems relate to limited feed and water availability. Management usually involves reducing competition by either removing domestic livestock or by removing a proportion of the horses. Roundups risk injury and separation or mixing of family groups. Fertility control using porcine zona pellucida antigen and GnRH vaccines have been attempted. Alternative strategies such as supplementary feeding or artificial water supply require consideration to be given to number and location of feeding stations – limited stations causing unnatural congregation of horses will affect spread of infectious disease and parasitism. Horses are less able to learn to adapt to unpredictably failing water stations than to seasonal variation in water supply.

Aside from malnutrition, welfare and health concerns for individual animals usually relate to acquired or congenital physical problems, or to debilitation due to old age. Infectious disease is a threat after capture in a high risk environment of increased numbers of horses in close proximity with higher stress levels, with most being immunologically naïve to infectious respiratory pathogens. BLM and FS land horses are protected by federal laws which prevent sending to slaughter and to wild horse races, and adopters must meet criteria for space and housing. Horses from other geographical areas are offered no such protection. Nevertheless, the BLM has come under criticism for failing to prevent resale of horses to slaughter facilities. Supply greatly exceeds demand, and the BLM has long term holding sites for horses.

**Veterinary conditions and drug use**

The racing discipline usually requires pre-race examination of horses. However when actions such as shockwave treatment, walking off stiffness, icing swellings on limbs, and administration of non-steroidal anti-inflammatory drugs (NSAIDs) and steroidal anti-inflammatory glucocorticoids are taken in order to pass inspection, then a horse that is unfit to race may be passed as fit to run (David 2009). Relationships between pre-race findings and subsequent racing or training injury (Cohen et al., 1999; Hill et al., 2001) indicate that when pre-existing injuries can be recognised and diagnosed this can allow appropriate action to be taken. Management practices
such as shoeing and training intensity have been found to be common factors associated with increased fatality (Kane et al., 1996, 1998; Anthenill et al., 2007). Conservative estimates of horses sustaining a fatal injury during their racing career are 4% in the US (Arthur, 2011). Training fatalities are not usually monitored or reported.

NSAIDs are permitted in US racing, and prohibited under IFHA rules. Repeated intra-articular administration of corticosteroids results in deterioration of articular cartilage (Wernecke et al., 2015). Firing and blistering (application of red hot iron or chemical irritant, usually to the lower limb) is a practice traditionally thought to promote healing by increasing blood flow, and although illegal in many countries, the procedure is still performed. Furosemide (a diuretic) is routinely administered to reduce exercise-induced pulmonary haemorrhage (EIPH – bleeding into the lungs) and is permitted on race days in North America, prohibited on race days under IFHA rules, and commonly used in training. Alternative strategies include preventing horses from drinking prior to running to achieve reduction in vascular volume. The extent of erythropoietin (EPO – a stimulant of red blood cell production) abuse in race horses is difficult to establish since EPO is broken down relatively quickly. Reticulocytes (immature red blood cells) mature within the bone marrow in horses and so are not found in large numbers in peripheral blood and splenic reserve means that a change in measured haematocrit between samples can be normal. Since EPO use is likely to be human-related EPO, there is a risk to the horse of immune mediated anaemia.

Common risks for horses involved in endurance racing include metabolic and musculoskeletal disorders. Contributory factors for these risks include preparation, i.e. under-training (not sufficiently conditioned) or over-training (fatigued), ride frequency, and rest time between competitions, because accumulated stress leads to higher incidence of metabolic failures or lameness. Common emergency conditions at endurance events include exhausted horse syndrome (dehydration, electrolyte imbalances, and glycogen depletion), myositis (a muscle disorder), synchronous diaphragmatic flutter (involuntary contractions of the diaphragm), colic secondary to intestinal atony, and heat stress.

Evaluations are performed by veterinarians before, during and after endurance events. Veterinarians make decisions as to a horse’s ‘fitness to continue’ both in soundness and metabolic capacity. While objective data, e.g. cardiac recovery index (CRI), assist with decision-making, standards and equality of judging can vary across a country and around the world (Loving 2011a). Elevated CRI tends to be associated with fatigue, dehydration, and other indications of exhausted horse syndrome (AERC, 2008; Loving, 2011a). Including ‘vet gates’ early on during an event minimises the number of later metabolic failures by enabling refuelling and rehydration at a point which accommodates for the lag time for a horse’s body to absorb and utilise nutrients (McCutcheon and Geor, 1996). Fewer vet checks during competition (e.g. non-FEI events) present a higher risk for the endurance horse as there are less opportunities to assess whether horses are fit to continue. Australia and France operate an early warning system whereby horses eliminated from competitions for veterinary reasons receive points appropriate to the severity of the disqualifying problem. Horses must only be ridden on shorter rides once a certain number of points are accumulated.

Drug testing is performed at random national and all high-level endurance competitions. There is a drug-free policy. Controlled medication – substances that are regularly used to treat horses – must be cleared from the horse’s system by the time of competition. Banned substances are prohibited at all times. There is some debate as to whether NSAID use could improve welfare of horses with mild problems (FEI, 2010a), and there is concern of increased risk of gastric or colonic ulcers or kidney damage when combining dehydration from endurance racing with NSAID use (Loving, 2011a; Tamzali et al., 2011).
Soundness to compete in the eventing disciplines is evaluated at a trot up prior to the start of competition and after the cross country phase. Fitness- and exhaustion-related injuries include EIPH, tendon and ligament injuries, rhabdomyolysis (skeletal muscle cell damage) and trauma from hitting obstacles. Soft tissue injuries typically occur when supporting musculature becomes exhausted and ligaments and tendons are subjected to abnormal forces (Allen, 2011). FEI, USEF and United States Eventing Association (USEA) rules provide for modifying courses in extreme heat to reduce incidence of hyperthermia. Due to a rise in rotational falls frangible pins have become mandatory on certain fence types. Similar to other disciplines – as competing with an injury or unsoundness may increase the likelihood of a catastrophic event – certain medications are prohibited.

Welfare compromise in dressage occurs when attempts are made to force the horse to perform movements for which they are not physically or mentally prepared. Suspensory desmitis (inflammation of a ligament) and tendonitis (inflammation of a tendon) are common ailments within dressage, and more likely if work continues once the horse is fatigued.

There are very few published papers assessing welfare of polo ponies. Injuries are primarily musculoskeletal and traumatic in nature. Commonly, ponies are not fed during the day when working and water may also be withheld. Further issues include poor fitting tack and poor dental care.

Specific welfare issues pertaining to hunter-jumper horses include placing young horses lacking physical maturity under physical stress, with resultant increase in lameness issues such as physitis (swelling around growth plates of long bones), and acute periostitis (inflammation of periosteum, the outer bone surface) (Mitchell, 2011). Despite the prohibition of certain medications, horses may nevertheless be medicated in an effort to mask pain or alter behaviour.

Dexamethasone (a steroidal anti-inflammatory) is permitted as a therapeutic medication in USEF (USEF, 2020) and American Quarter Horse shows (AQHA, 2020). Many hunter and jumper horses receive it ostensibly for allergies, but it is often in reality administered in an effort to control behaviour due to the belief that it makes a horse quiet (Mitchell, 2011). Immune suppression and laminitis are risks from frequent administration. Intravenous thiamine and magnesium sulphate have been used to calm horses for the show ring. Although the substances are not prohibited, the intent is illegal and administration poses a risk for medical complications. Adrenocorticotropic hormone (ACTH) is frequently used to quieten horses. Repeated use could pose a health risk due to stimulation of adrenal glands. Immune stimulants such as bacterial cell wall derivatives have been used as quieting agents as they cause brief febrile response and subsequent quietened behaviour. This form of abuse is not detected in drug testing.

The rodeo industry is self-regulating and the PRCA provides a framework to protect the horse within the rodeo setting, however the PRCA only sanctions a small percentage of all rodeos, and rules require enforcement in order to safeguard the horse.

Cutting horses suffer from exercise induced traumatic diseases such as synovitis (inflammation of a synovial membrane) and capsulitis (inflammation of a joint capsule) of hocks and stifles, tendonitis and desmitis of suspensory apparatus in fore and hind limbs. Conditioning and training to strengthen the musculoskeletal system in young cutting and reining horses can help reduce these injuries. However, the practice of medication and continuation of training means re-injury often occurs due to insufficient recovery time.

Routine injection of stifles and hocks on a scheduled maintenance programme in the absence of any perceptible lameness is commonplace within the cutting, reining, and cow horse industries. Inherited diseases affecting quarter horses include hyperkalaemic periodic paralysis (HYPP – a muscle disorder, elevated blood potassium) and hereditary equine regional dermal
asthenia (HERDA – a skin disease). Genetic associations in osteochondrosis (OCD – disturbance of normal cartilage formation) incidence in some breeding lines has also been noted.

Therapeutic medication is allowed in the rules of many North American horse show organisations (USEF, 2020). NSAIDs are permitted for therapeutic purposes up to 12 hours prior to competing under USEF and Equestrian Canada (EC) regulations and within 24 hours of an event under AQHA (2020) regulation. Concurrent use of several NSAIDs is not permitted for 72 hours prior to competition. Welfare issues can present when there is a lameness without diagnosis, or when NSAIDs are given prophylactically, potentially masking a new injury.

City-issued registration identifies Northern American carriage horses used in the tourism industry, and indicates that they have been examined fit by a veterinarian. Periodic veterinary examinations vary in frequency across states and cities. Sick, lame, and inappropriately shod horses are prohibited from working. Time, shift, and area recommendations are designed to reduce risk of traumatic injury by avoiding peak traffic and mandating maximum shift and rest periods. Common health problems of the carriage horse include lameness from continuous concussive work on hard paved ground. Colic is a major cause of death and suspected inadequate deworming and subsequent intestinal vascular damage, and abrupt feeding change together with lack of exercise when trade low, are possible reasons. Other problems include respiratory issues such as asthma, with urban air pollution suggested as a contributing factor (although there is no evidence for this), and pleuropneumonia in new carriage horses who arrive from auctions. Skin problems and harness sores, weather-related problems (most cities have hot weather regulations for carriage horses), trauma due to slipping on uneven pavement, and rub marks from stalls, are also seen. Emergency vet care for horses may not be readily available near major cities as these services are often located in rural areas.

Welfare health concerns relating to the companion horse include obesity with consequent increased laminitis risk, especially if the horse or pony has metabolic or hormonal imbalances; parasite burden; and slow decline due to a combination of dental problems, malabsorption, metabolic problems, chronic pain reducing appetite, and pain induced catabolism. The question of euthanasia and when it should be performed – neither too early nor too late – depend on a person’s ability to provide for medical needs.

Working equids include draft animals and those used for transportation. Provision of basic needs such as food, water, safe housing, farriery and veterinary care are likely to be met in higher-income countries. However these needs are met to varying degrees in working animals in low- and middle-income settings. Working equids within the limits of their ability based on their aptitude and fitness, weather conditions, type, and level of task required, is necessary. Tack should be appropriate for the task and not unduly burden or injure the equine. A negative impact on welfare occurs when the horse, donkey, or mule are not provided basic care, and if they are overworked or abused in order to make them work.

The donkey skin trade is almost entirely unregulated or illegal; by 2021, 4.8 million donkeys are killed annually for the Chinese medicine ejiao. Donkeys are often transported in overcrowded trucks for days without food, water, or rest. They may arrive at slaughterhouses with severe injuries and, in some cases, up to 20% of donkeys are dead on arrival at slaughterhouses (The Donkey Sanctuary, 2019). They often can be held for days at slaughterhouses without access to food or water before being slaughtered, often brutally.

PMU ranching farms use harness apparatus to collect urine from mares in foal. PMU contains oestrogen in an orally active form. Federal, provincial, and contractual regulations provide requirements for care of the mares. Welfare concerns include limited access of mares to outside corrals or pasture for six months of the year, and the fate of the foals after forced weaning. Foals and barren mares may be sent to slaughter, although in more recent years North American PMU ranchers have improved marketability of foals for performance activities.
Collection of blood from pregnant mares for extraction of equine chorionic gonadotropin (eCG) for use in farming industries is a poorly regulated practice. Collection takes place between 40 and 120 days of gestation, and in some regions it is common for the pregnancy to be terminated so that the mare can be rebred for a second blood collection period that year. Live foals are routinely weaned prematurely. Horses become weak, emaciated, and die when mares are bled too frequently or if too much blood is collected at any time (Manteca Vilanova et al., 2019). Mares are usually managed extensively on pastures with minimal oversight. Some facilities house mares indoors under intensive conditions. Often horses may be poorly desensitised and habituated to handling, with resultant fear and stress at handling during blood collection.

Unwanted horses

The entire horse industry – including all breeds and disciplines – is responsible for wastage and the unwanted horse problem (Lenz, 2011; Wightman and Mendham, 2021). The large numbers concerned mean they are candidates for neglect. Those slaughtered for meat represent the lowest economic value horses with age, physical disability, and behaviour all factors contributing to their economic worth. Opponents of anti-slaughter legislation argue that unintended consequences could include increased neglect, abuse, and abandonment. However, proponents argue that the availability of slaughter has led to a prevailing culture and attitude that horses are disposable, with horses suffering at and during transportation to slaughterhouses.

Euthanasia is regarded as an acceptable option for unwanted horses by many individuals and organisations involved in welfare, because current rescue and retirement facilities cannot accommodate all unwanted horses. Acceptable methods of euthanasia include injectable barbiturates, gunshot, and penetrating captive bolt (AVMA, 2020); in the UK captive bolts are permitted to stun, and bleeding or pithing is subsequently required.

Alternative options to slaughter include retraining, rescue, adoption, or retirement facilities. Organisations promoting retraining include the Jockey Club in the UK, Thoroughbred Charities of America, and the Thoroughbred Retirement Foundation in the US for racing thoroughbred horses, the AQHA “Greener Pastures” scheme, the Colorado Unwanted Horse Alliance, and the Unwanted Horse Coalition. However, the numbers through these routes form only a small percentage of the horses used in these industries. Owing to the relatively long natural life span of 25–30 years, considerable time, space, and financial commitment is required to care for horses. There is a need for oversight in order to prevent animal hoarders who are unable to provide for their needs, or dealers, from taking horses under false pretences.

A call for change

Studies have shown that most owners believe horses to be sentient and capable of emotions such as pain, fear, or joy (DuBois et al., 2018b; Hötzel et al., 2018). However, belief in sentience does not appear to reflect understanding of welfare issues (DuBois et al., 2018b). A recent survey (Bell et al., 2019) illustrated that horse owners had a lack of knowledge of behaviours associated with negative affective states. McGowan et al. (2010) demonstrated that owners could not identify all clinical signs of ill health in their aged equines and did not seek veterinary advice in all cases when it was warranted. Furthermore, studies have indicated that owner awareness of welfare issues such as keeping horses with social companions or use of training methods identified as causing distress, is frequently at odds with their behavioural practice towards equidae in their care (Hartmann et al., 2015; Bell et al., 2019), suggesting that knowledge was not the only factor involved in poor horse welfare. Other barriers to improving horse welfare may be related
to financial constraints, opportunity to change practices, habit, and cultural norms around horse management (Hartmann et al., 2015; Bell et al., 2019).

Horses in our society are still considered personal property and they are frequently kept in a manner that inadequately assures their physical, behavioural, psychological, or emotional welfare needs. Within the horse industry there is too little regard for prioritising the welfare of horses and the horses often lack someone to advocate on their behalf. Given the widespread welfare issues across all disciplines, and that the main beneficiary from the human–horse relationship is the human, it could be argued that the interests of the horse are best served by our leaving them alone – breeding only those who can live sustainably in free-living environments and taking care of remaining domesticated horses as they live out their natural lives. Given this is unlikely to gain popular appeal or to occur in the near future, it is imperative that we make changes to the ways in which we interact with horses in our custodianship if we are to ensure their welfare. A change to current habituation of trainers, owners, and industry to inhumane practices and training methods is necessary, together with engendering empathy for the pain and suffering of the horse. Further to this, regulation and active enforcement of regulation violations with measures for protecting horses in their home environments, is necessary.

Management practices such as medical interventions, shoe type, training practices, or management techniques which contravene any aspect of holistic health of the horse in order to fulfil requirements of a particular industry, must be re-evaluated. Furthermore, requirements of disciplines should be re-evaluated and changed if they encourage such practices. If medication is required in order for horses to perform then the demands of the activity itself must be called into question, and the benchmark for competition should be reviewed. If horses need furosemide to run in the racing industry, they shouldn’t be running so often, as far, or at all. Endurance horses ridden in a way that necessitates metabolic treatment reveals an unacceptable consequence of performance demands. While an incentive to ride with emphasis on finishing in good condition is afforded by the Best Condition award, incentives and practice need to go further. Rather than pushing to extremes, would the ‘sport’ not be more ethical if working within a horse’s natural physiological capability? Mandatory log books for endurance horses with sufficient records of sound judgements is surely a minimal requirement to help abolish horses being pushed beyond their capabilities.

Proactive routine investigation is warranted, with trainers, owners, and veterinarians on board, in order to make early diagnoses and prevent situations where injuries are ignored or deemed too low-grade to investigate, which can bring catastrophic results (Arthur, 2011). Race trainers with high fatality rates currently suffer few repercussions. Accurate mandatory reporting of racetrack and training fatalities, with appropriate independent investigation and accountability, is a basic starting point from which to tackle this issue.

The use of overwork, psychotropic medication, and other practices, require change in judging guidance and improvement in ability of judges to evaluate genuine and natural displays of calm and relaxed behaviour, rather than rely on markers which are subject to abuse. Stringent rules and enforcement policies are required. Veterinarians and stewards need better guidelines and support to recognise, monitor and prevent abusive riding and exercise, and to enforce regulations.

Clear identification of horses with microchips and fit-for-purpose electronic systems and databases can assist with compliance of legal requirements such as working hours of carriage horses, and movement and sale of horses with particular reference to illegal travel to slaughter (Wightman and Mendham, 2021).

Across all industries, recognition of pain or discomfort behaviours is necessary, rather than interpreting behaviour as a sign of resistance. Understanding that prevention of expression of
such behaviours is likely to further compromise horse welfare, is also necessary. Education along with the introduction and enforcement of robust regulations is essential to promote ethical practices. Methods used to train and work with horses should move towards a true partnership between horse and human, taking account of ethology, and progress to working with consent from the horse.

Horses should be allowed to wean naturally, or at least gradually, in groups, and consideration should be given to pair bonds. Dietary adjustment should be made to at the very least mimic natural foraging. Daily turnout with herd mates should become the norm to allow species-specific behaviour, with a move away from reliance on individual housing systems and abolition of tie stalls.

Emphasis on retraining of horses and increased provision for retirement, with responsibility taken for this by the industries which contribute to the problem, is required. A move towards owners taking lifelong responsibility for the natural life span of their horses would likely necessitate reduction of the problem of unwanted horses at source by responsible breeding, which in some cases may mean no or highly limited breeding. It is simply not acceptable for horses to be malnourished, suffering from physical and psychological stress, or sent to slaughter to uphold human wants. Eventual transition towards horses becoming legal ‘wards’ with owners considered ‘guardians’ may in the future place limitations on human use and abuse of horses (Loving 2011b).

Conclusions

We must improve our treatment of equidae. Commonplace forceful training-, management-, and health-associated practices which subordinate equine welfare to human interests require human behaviour change in order to protect the horse from suffering. There needs to be a cultural change, whereby human–horse interaction is dependent on genuine concern for the welfare of the horse, underpinned by understanding of ethology, and prioritisation of physical, psychological, cognitive, social, and emotional needs of the horse. For optimum equid welfare we must communicate empathetically with horses, gain their consent for interaction, and further, allow horses choice and control over their lives.

References


