

Injury Rehabilitation Ethics in Equestrian and Equine Athletes within the Racing Industry

HN-300-C

Valerie Stein

Introduction

With ever increasing popularity in the sport and pressure to win, the horse racing industry has placed an immense amount of stress on its athletes. Both the equine and equestrian athlete are placed in highly competitive situations, which push their physical capabilities to their limits. Throughout their training programs and competition, the risk of injury is high. In regards to health, decisions made for equine and equestrian athletes must be equally ethical. Post-injury treatments for each type of athlete vary depending on the injury, but measures taken towards the equine athlete are far less extreme. Part of the reasoning behind this is the stigma that an animal athlete, in this case the horse, is not as high of a priority in comparison to its human counterpart. Although there are some rules and regulations in place to ensure the safety of all participants to a certain extent, further protection must be implemented to ensure each athlete, both human and equine, receive fair and ethical treatment. As the industry places ever increasing stress on its equine athletes to perform, the risk of severe injury continues to skyrocket. This puts racehorses' lives at risk due to a lack in ethical protocol that ensures their complete well-being.

Background

Within the racehorse industry, thousands of horses are bred specifically for racing each year. Out of those thousands, roughly about 5-10% of them will ever place a hoof down on a racetrack.¹ For those unfortunate enough to not get selected, the about 10,000 thoroughbred horses are sent to slaughter if not lucky enough to be able to specialize in another career.²

Each year, hundreds of equine athletes are pushed to their breaking points. In 2015 alone, the fatality rate per every 1,000 starts was 1.62 in the United States.³ On track deaths occur as a result of sustaining major career ending injuries, therefore ensuing in immediate euthanasia. Just recently, there have already been 58 documented deaths in January of 2019 while training or

competing.⁴ Of those 58 deaths, twenty two of them came from the same facility in Santa Anita, which is now under investigation due to their increased fatality rate over the past year.⁵

Ethical Reasoning

The use of animals in sporting and competitive events is considered to be morally inappropriate by some individuals. The debatable topics that could sway decisions could include the young age of racehorses and the effect it plays on development, the use and abuse of whips and spurs, the use of doping medication, and the decision to euthanize.⁶ In order to appease the people who have opposing views against these topics, the people involved in the racing industry must ensure justifiable responses to why they do what they do. As society becomes increasingly aware of animal welfare, the racing industry is continuously being challenged as to whether or not it is considered ethical. The goal would be to continue educating the public and horse owners of the strict guidelines and to ensure that the overall goal is to maintain the welfare of the animal first and foremost.

Determining the ethicality of a decision is opinion based, using key points to back up one's argument. When attempting to make a medical decision, it can become difficult to decipher and then justify what and why a specific procedure was performed. To help facilitate the development of moral values, a model of ethical reasoning was created by James Madison University. The model was based on topics of fairness, outcomes, responsibilities, empathy, authority, and rights.⁷ Creating these guidelines to help structure ethical decision making helps to regulate each and every decision.

Along with a structured ethical guide, there are also individuals who devote their lives working for and studying the rights of animals. Peter Singer is a philosopher who specializes in animal rights. He believes in a difference between humans and animals, but only to a certain

extent. Animals are conscious creatures, similar to humans, but lack an immortal soul as powerful as a human soul. When discussing animal euthanasia, he claims that there is a “fine line drawn between humans and animals, and it is unfortunate that the line is drawn in the wrong place, in favor of the higher human side.”⁸ In agreement with Singer, racehorses receive the short end of the stick in regards to ethical treatment. The line drawn between humans and horses raise debate and therefore, must be defined, to ensure consistency within the racehorse industry.

When brought back to the issue of animal rights in racehorses, many argue for the horses’ best interest. Determining what course of action is best, post-injury, brings up endless questioning. For the equestrian athlete, there is no question when it comes to treating injury. There is an entire healthcare system in place to ensure the best possible care for every human. For the horse, on the other hand, they are incapable of advocating for themselves. The challenge injured racehorses face is having their lives in the hands of an advocate who might not consider them a priority.

Difference Between Athletes

The equestrian athlete, also known as a jockey, is held to the highest of standards in the racing industry. Their professionalism and ability to strategize is key to a successful race. While on the track, it is the jockey’s job to direct the horse in the correct path as well as maintain proper speeds throughout the race. Like any other professional athlete, jockeys are paid to compete. Their salaries could range anywhere from \$30,000 - \$40,000 per year, although some of the top 100 jockeys have earnings up to \$5.7 million. Their earnings fluctuate depending on how successful they are on the track.⁹

The equine athlete plays a just as important, if not bigger, role in the racing industry. Although an animal, the racehorse is considered just as much an athlete as the human rider. The

horses are the power and motor behind every race. From birth, they eat, sleep, live, and breathe racing. Since the equine athlete is an animal, they do not acquire the same benefits as their human counterpart in terms of pay. Horses race because they are raised into the job, unlike jockeys, who train in order to get scouted for the job, which in turn pays them to race. A jockey will typically ride multiple horses throughout a training session. On the other hand, racehorses continually train with the same jockey, to insure consistency and compatibility.

Training

Substantial preparation and training is needed in order to compete professionally for both equine and equestrian athletes. For the equestrian athlete, a lengthy selection process takes place, allowing the jockey to get paired with an agency, starting at the age of 18. Some of the selection process requirements include a weight limit, medical evaluation, and horse handling experience. Height is not a requirement, but the shorter the jockey, the better. Typically, jockeys stay within the weight limit of 108 – 118 pounds.¹⁰ Although smaller than the average American athlete, jockeys are required to be just as, if not stronger, and be able to control large, muscular horses, at top speeds up to 40 miles per hour.

For humans, the body does not fully develop until around the age of 25 years.¹¹ At the peak of a jockey's racing career, they can range in age from 18 – 30 years old. Training, on the other hand, begins much earlier. Before they train on actual racehorses, jockeys need experience handling horses in general and be comfortable riding non-racehorses at slower speeds. With only one training school across the United States, located in Lexington, Kentucky, admittance is very exclusive. The North American Riding Academy only accepts twelve prospective jockeys each year.¹² Once at a top level training facility, jockeys work directly with clients and their own racehorses. In the off season, a jockey works with an average of three horses per day. When in

the height of a season, a jockey works up to about 45 – 50 hours a week, riding as many as twelve races in one day, seven days a week. Although racing is not an endurance sport, jockeys must be able to recover from one race and be ready for another within a short amount of time.¹³ In regards to retirement, some jockeys choose to never officially retire. Some of the more seasoned professionals become trainers in the industry, leaving behind their racing careers for a younger generation. There is no age limit set for retirement, which opens up the competition to a variety of jockeys.¹⁴

The equine athlete has a slightly different upbringing. Its probability of success is determined within the first few weeks of its life, based on its body structure, as well as its bloodline. The breed of horse used in these races is the Thoroughbred, due to their size, power, and speed. These horses reach physical maturity at the age of about five years. If selected as a prospective racehorse, it will begin training as soon as possible, which is commonly even before its first birthday. Competition then ensues by the time they reach an age of two years old.¹⁵ A thoroughbred's racing career is short, only lasting two-three years.¹⁶ During that time, they are put through rigorous training programs. These programs condition their anaerobic capacities, due to the nature of the sport being short and fast. Each program is tailored specifically to each horse and consists of high intensity sprints one to two times a day, six days a week.¹⁷ It is also vital to maintain consistent training, while including a rest day as well. A decline in speed performance is seen as a racehorse reaches past the age of five years old.¹⁵ Retirement from the track itself can occur due to a few reasons. A young champion may be chosen to retire early in order to breed even more successful offspring. Other reasons could also include exhaustion in the sport, being overworked or injured, and not coming up with enough wins to pay back entry fees.

Similarly, both the equine and equestrian athletes strive for perfection and train hard to become the best of the best. They each must train separately as well as together to become a winning team. As anaerobic athletes, they expend all of their energy within a very short timeframe. Although racing requires use of each athlete's anaerobic systems, it is vital to have strong aerobic capacities, as well as balance.¹⁸ Training the cardiovascular system for endurance, in both the horse and the jockey, is an important part of training.¹⁷ When brought together on the track, that is when the high intensity interval training would take place.

Comparing the training programs of both athletes further expands on the topic of ethical treatment. Throughout a jockey's training, every step is a decision made by the athlete themselves. They choose to apply for a spot at the North American Riding Academy and choose to get up every day to train their hardest. They choose their career and work hard to fit the mold of the best possible athlete they can be. On the other hand, a racehorse is born into a strict breeding program. They do not choose their careers as well as how hard they train. Racehorses live their first few years of life under constant control by someone else's agenda. Their decisions are chosen for them and they train however hard and often as their owners would like.

Injury

Under the demanding conditions placed on the body during a race, proper technique is necessary. Safety precautions can be put into place, but they do not prevent all injuries. Racing is a dangerous sport, involving thousand pound animals moving at top speeds in close proximity to one another. Injury is a common occurrence, ranging in severity for both athletes. The equestrian and equine athletes are at equal risk for injury, but the repercussions of those injuries for the horse are far more severe.

Injury prevention and safety take precedence when training to compete. Since the jockey is the brains behind the operation, it is up to them to ensure they are properly guiding the horse. Horses contain the motor and power to win, but are controlled by their partner with every move they make. It has been argued that in the case of injury, if one were to get injured, it would be due to a lack of good judgment by the jockey, unless classified as a random accident. In agreement this is argument, horses are trained to do as they are told. If a command involved a risky maneuver, the horse does not have the conscience to think twice about it; they would simply just do, although it may put them at risk of injury.

Jockeys sustain a great number of injuries while racing, although direct cause of each injury may be unclear. Jockeys are seen almost three times a year, on average, for injuries associated with their occupation, according to a recent study. When injury occurred, the incident typically involved the jockey getting knocked off of their horse or both the rider and horse falling down together.¹⁹ When determining which racehorse injuries or racing conditions yielded the greatest risks of jockey injuries or falls, it was determined that the risk of jockey injury increased when their racehorse also experienced an injury during a race. In the majority of cases, the jockey riding a racehorse involved in a race-related catastrophic injury or sudden death, was also severely injured. In thoroughbred racehorses, the most common cause injury resulting in jockey injury was a fetlock injury, which is part of a horse's lower leg.²⁰ For the jockey, concussions and musculoskeletal injuries are most commonly seen.²¹

A career ending injury can be defined as an injury so severe, that an athlete can no longer participate in their sport. Not only can a major injury alter one's career, but it could also decrease that athlete's quality of life, or unfortunately even end it. There is a difference seen between the two types of athletes in regards to the definition of a career ending injury. In the jockey's case, a

few broken bones could result in only taking some time off from racing in order to properly heal. In the horse's case, a broken bone could lead to never being able to use that limb again. The classification of injury severity varies between athletes with the same injury due to the nature of their body structures, which could then impact their career within the industry.

Treatment and Return to Play Considerations

Return to play considerations are fundamental to the practice of sports medicine. A decision based model was created to help clarify the process that clinicians undergo when determining a client's return to play timeline. The purpose of the model was to generate a consistent thought process, which could evidentially decrease controversy.²² The challenge of this model would be trying to implement it into the world of veterinary medicine as well. There are two main steps when assessing an athlete wanting to return to their sport post-injury. A clinician will first evaluate how much healing has occurred since the injury took place. Participation risk is then considered. In other words, a clinician must think about the athlete's ability to protect their injury if participation in their sport resumed. Although, a previous injury increases one's chances of re-injury by four times, so ensuring ample recovery time is imperative.²² From a jockey's perspective, getting back on the racetrack following an injury is their number one priority. Experienced jockeys are in high demand, so the likelihood of them returning once recovered is high.

In the world of veterinary medicine, determining how to proceed with an injured racehorse might present challenge. Veterinarians go through a similar thought process to determine treatments, but are also allowed to make a judgment call on a secondary option; euthanasia. The topic of euthanasia is extremely controversial and is argued by many. In regards to the racing industry, there have been many cases when it was decided to euthanize equine

athletes either at the moment of injury or after some time following the injury. In 2015 alone, there were 484 documented equine fatalities through the practice of euthanasia.³ It is typically seen, in instances where a horse is either too seriously injured or failed to recover properly, that they are put out of their misery.

During their careers, racetrack thoroughbreds are still in their adolescent years, so their musculoskeletal systems are still in the process of maturing. If sustained a major injury, it is up to the veterinarian to decide whether to proceed with treatment, or to euthanize. Treating animals in emergency situations can be far more complicated than a human patient. Unable to communicate or process information, an injured horse can become very panicked, which could lead to further injury. If a thoroughbred were to sustain an on track injury, the injury would most commonly be a broken leg, or fetlock.²⁰ Their legs must be able to absorb a considerable amount of shock. When broken, the chances of a successful recovery are slim.²³ If a horse is able to recover from a serious injury, the odds that they will return to the track are slim to none, although other options for them might include an alternate career consisting of a lighter work load.

Rules and Regulations

In order to address the ethical standpoint within the racing industry, rules and regulations were implemented. Injury management guidelines are in place to ensure consistency and efficiency during races, although this is not the case for training sessions. On staff equine veterinarians are on call during training sessions, but are not always directly present. Rules within the guidelines, on the other hand, state that during a race, an emergency management team must be present in case of an accident for both equestrian and equine athletes.²⁴ In the event of an emergency on the track, a specialized ambulance equipped for assisting both horse and

jockey, follows behind the action of a race. Trailing closely behind the last horse, the ambulance, also referred to as a chase vehicle, is equipped with necessary materials as well as trained staff ready to respond to varying types of incidents. It is in those few moments upon arrival that the emergency medical staff must evaluate and treat the injured athletes. Transport of the jockey occurs in most if not all circumstances. If transport of the racehorse is not an option, due to severe wounds, euthanasia is performed in a professional manner. There are no set rules regarding when euthanasia should or should not be performed, only suggestions to ensure that the animal is being treated in a humane manner.

Although rules are in place to ensure safety precautions are being taken during races, there is a lack when it comes to training sessions. These sessions push the athletes to race just as hard, as if it were a race. There should be regulations on just how hard horses can be pushed during training sessions. High speed conditioning puts a lot of stress on a racehorse's body systems, therefore, overtraining could be detrimental to their health. When worked at 75 – 85% of maximum speeds, multiple times a week, fatigue and exhaustion may set in.¹⁷ Training programs vary by trainer, but regulations should be set to minimize the occurrence of over trained racehorses. Jockeys, on the other hand, are paid athletes with set limits to hours worked per week, so they are not in dire need of these regulations as badly as their equine teammates.

Economic Factor

As a veterinarian, one must not only tend to the animal in need, but they must also serve the human client, or horse owner. Each with their own morals and interests, the veterinarian must balance what is ethically right in each and every situation. Veterinarians play a challenging role in critical decision making when it comes down to the animals' well-being. There is a fine line drawn in terms of euthanasia, but the veterinarian is the one who evidentially has the final say.²⁵

Veterinarians play a key role in providing medical care for sports horses throughout the duration of a competition. The standard client to veterinarian relationship that exists in animal medicine is distorted by involvement of third parties in sports medicine, therefore leading to distinct ethical dilemmas which demand focused, academic attention. Although many of the ethical problems faced in human and equine sports medicine are similar, it is the responsibility of a veterinarian, by the licensing authority, to ensure the welfare of the animal comes first through evidence based practice, rather than being economically driven.²⁶

Money is a key factor in the decision making processes within the racing industry. Winning races is what brings income to the owners, which in turn pays for all expenses related to maintenance and upkeep of their business, including veterinary bills. Costs of medical bills are exponential, especially for a racehorse who suffered an injury. In the case of a serious injury, owners are put in a tough place when choosing how to proceed. They could choose a more ethical approach and invest money into a rehabilitating a horse not likely to race again. Owners could also choose to sell off to slaughter or euthanize their horse to save money, to then put towards a new winning racehorse. From an economic standpoint, the owner would be making a smart decision by getting rid of their no longer beneficial horse. From an ethical standpoint, it is morally wrong to kill an animal in need of medical attention due to the fact that they are no longer useful to their owners anymore. To help persuade owners to make ethical decisions without worrying about the money aspect, an economic incentive is set in place. An option for owners is the purchase of racehorse insurance. Although, not many owners take advantage of this opportunity. There are several types of insurance for an owner's "equine investment" which include compensation for a number of factors; none of which include coverage for surgical or medical expenses. Veterinary bills are extremely costly, so for an owner to invest in insurance

that does not cover them is senseless. Medical treatment for an injured jockey, on the other hand, does not have an effect on the racehorse owner. Although hired by the owner to compete in races, a jockey's medical expenses are up to the jockey and their private agency.

There is also a difference seen between owners and trainers. Typically, the owners are the ones calling the money shots, stay behind the scenes, and do not get directly involved with the process. Trainers are paid by owners to be completely hands on, and are the brains behind the training process undergone by both athletes. There is a divide seen between how each acts regarding the ethics of animal welfare, in regards to racehorses. Trainers want their jockey-horse combination to win just as badly as the horse owners, although owners ream all the benefits, financially. The well-being of both athletes are taken into further consideration by the trainers. Evidently, the owners are paying the trainers salary, so if the owner demands better results on the track, the trainer is forced to push both athletes harder.

Considerations

To improve the racing industry, modifications must be implemented in order to further benefit the equine athlete. Three main considerations that would greatly impact the well-being of racehorses are delaying the age at which rigorous training begins, limiting occurrences of overtraining, and creating medical insurance. Delaying the age at which a racehorse begins its training program to three years old would allow time for its legs to fully develop, therefore lowering the chance for injury. Limiting occurrences of overtraining would place less stress on a racehorse's legs and allow proper recovery time from each training session. Lastly, creating medical insurance would benefit the horse owner, financially, which would make them more inclined to go forth with medical intervention following an equine injury. Applying these developments into the racing industry not only improves the ethical treatment of the equine

athlete, but it also creates a safer environment for all athletes involved. By decreasing the risk of injury for equine athletes, it in turn lowers injury risk for jockeys as well.

Conclusion

An athlete is a living being who is proficient in sports or other physical forms of exercise. Both a jockey and racehorse fit into the definition of an athlete, yet lack equality in ethical treatment. Although an animal, a racehorse trains just as hard as any other professional athlete, and deserves the recognition it has worked for. Included in that recognition is equivalent measures taken for medical care. Equal standards of care are offered for professional human athletes, yet top rated racehorses are being euthanized because it is still considered humane to end an equine athlete's life due to a severe career ending injury. Although current research does not allow for further medical advances to increase the chances of racehorse survival post-injury, enhancing protocol to decrease risk of catastrophic injury to the equine athlete could have a huge impact on injury rates, and therefore the need for post-injury medical treatment. Looking forward, more must still be done to enforce the idea that all athletes, both human and equine, are of equal caliber and deserve the same ethical treatment post-injury, within the field.

Acknowledgements

I would like to recognize and thank the professors who were involved in the advising process of this capstone paper. Professors Alicja Stannard and Brent Little were able to provide constructive and informative feedback. Professor Thomas Terleph also assisted in coming up with a basis of research, while helping further define the initial argument.

References:

1. Horse Racing Fact Sheet. <https://horsefund.org/horse-racing-fact-sheet.php>. Accessed March 18, 2019.
2. Overbreeding and Slaughter. PETA. <https://www.peta.org/issues/animals-in-entertainment/horse-racing-2/horse-racing-industry-cruelty/overbreeding-and-slaughter/>. Accessed April 8, 2019.
3. Hundreds of racehorses die at the track each year. Their deaths may be preventable. Washington Post. https://www.washingtonpost.com/sports/hundreds-of-racehorses-die-at-the-track-each-year-their-deaths-may-be-preventable/2016/07/13/1250df9e-3412-11e6-8ff7-7b6c1998b7a0_story.html. Accessed March 18, 2019.
4. Killed, 2018. *Horseracing Wrongs*. February 2018. <https://horseracingwrongs.com/killed-2018/>. Accessed March 18, 2019.
5. Santa Anita bans drugs, limits whips after 22nd horse suffers fatal injury. <https://www.nbcnews.com/news/us-news/another-horse-dies-santa-anita-race-track-n983361>. Accessed March 18, 2019.
6. Is-racing-ethically-justified-Health-welfare-and-racing-An-ethical-challenge.pdf. https://www.researchgate.net/profile/Andrew_Higgins/publication/262674868_Is_racing_ethically_justified_Health_welfare_and_racing_An_ethical_challenge/links/5533f4df0cf27acb0def8dc7/Is-racing-ethically-justified-Health-welfare-and-racing-An-ethical-challenge.pdf. Accessed February 15, 2019.
7. James Madison University. Eight Key Questions Handbook. 2018. <https://www.jmu.edu/ethicalreasoning/Docs/8KQ-Handbook-Web.pdf>.
8. Equality for Animals?, by Peter Singer. <https://www.utilitarian.net/singer/by/1979----.htm>. Accessed February 15, 2019.
9. The Average Salary of a Horse Jockey | Bizfluent. <https://bizfluent.com/info-8666073-average-salary-horse-jockey.html>. Accessed March 18, 2019.
10. Exercise Rider and Jockey Training Program. <https://www.thehorses.com/racetracks/25-backstretch-programs/53-exercise-rider-and-jockey-training-program>. Accessed March 19, 2019.
11. Johnson SB, Blum RW, Giedd JN. Adolescent Maturity and the Brain: The Promise and Pitfalls of Neuroscience Research in Adolescent Health Policy. *J Adolesc Health Off Publ Soc Adolesc Med*. 2009;45(3):216-221. doi:10.1016/j.jadohealth.2009.05.016
12. Morgan J. Derby Experiences' Inside Look on the Life of a Jockey. <https://social.derbyexperiences.com/derby-experiences-inside-look-on-the-life-of-a-jockey>. Accessed March 19, 2019.

13. Cannon CM. Jockeys: When the toughest get going; Athletes: Linebackers and hockey players are not in the same league as these gutsy little guys. *baltimoresun.com*. <https://www.baltimoresun.com/news/bs-xpm-2000-05-19-0005190298-story.html>. Accessed March 19, 2019.
14. Durso J. HORSE RACING; Old Jockeys Don't Retire; They Fade Into Training. *The New York Times*. <https://www.nytimes.com/1992/07/16/sports/horse-racing-old-jockeys-don-t-retire-they-fade-into-training.html>. Published July 16, 1992. Accessed March 19, 2019.
15. GRAMM M, MARKSTEINER R. The Effect of Age on Thoroughbred Racing Performance. *J Equine Sci*. 2010;21(4):73-78. doi:10.1294/jes.21.73
16. How Thoroughbred Horses Work. HowStuffWorks. <https://animals.howstuffworks.com/mammals/thoroughbred-horse.htm>. Published October 4, 2011. Accessed March 19, 2019.
17. Basic Conditioning of the Equine Athlete - eXtension. <https://articles.extension.org/pages/11280/basic-conditioning-of-the-equine-athlete>. Accessed March 19, 2019.
18. Are You Strong Enough to Be a Jockey? Furthermore from Equinox. <https://furthermore.equinox.com/articles/2018/05/jockey-fitness-kentucky-derby>. Accessed March 19, 2019.
19. Press J, Davis P, Wiesner S, Heinemann A, Semik P, Addison R. The National Jockey Injury Study: An Analysis of Injuries to Professional Horse-Racing Jockeys. *Lippincott-Raven Publ Clin Issue Sport Med*. 1995. file:///Users/valeriestein/Downloads/The_National_Jockey_Injury_Study__An_Analysis_of_5.pdf.
20. Hitchens PL, Hill AE, Stover SM. The role of catastrophic injury or sudden death of the horse in race-day jockey falls and injuries in California, 2007-2012. *Equine Vet J*. doi:10.1111/evj.12392
21. Forero R, Manuel A, Walter L, Gilchrist M. Fall and injury Incidence rates of jockeys while racing in Ireland, France, and Britain. *Elsevier*. May 2010. doi:10.1016/j.injury.2009.05.009
22. Creighton D, Shrier I, Shultz R, Meeuwisse W, Matheson G. Return-to-Play in Sport: A Decision-based Model. *Lippincott Williams Wilkins*. 2010;20(5). file:///Users/valeriestein/Downloads/Return-to-Play%20in%20Sport_%20A%20Decision-based%20Model.pdf.
23. Do horses with broken legs have to be shot? HowStuffWorks. <https://animals.howstuffworks.com/mammals/broken-leg-horse.htm>. Published July 16, 2008. Accessed March 21, 2019.

24. Berkeley K, Blea J, Bramlage L, et al. AAEP Thoroughbred Race Day Injury Management Guidelines. :13.
25. Tannenbaum J. Veterinary Medical Ethics: A Focus of Conflicting Interests. *J Soc Issues*. 1993. doi:10.1111
26. Campbell MLH. The role of veterinarians in equestrian sport: A comparative review of ethical issues surrounding human and equine sports medicine. *Vet J*. 2013;197(3):535-540. doi:10.1016/j.tvjl.2013.05.021