

Riding Heart to Heart: A Clinical Psychological Perspective on Therapeutic Human-Animal Bonding

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Impact Statement:

This study explores the transformative psychological impact of therapeutic riding. It offers evidence that horses play a crucial role in emotional recovery, trauma reduction, and enhancing human resilience through deep non-verbal connection.

Abstract

This article summarizes the effects a rider has on the horse and how it would affect their performance as a whole. It also talks about the causes for injury and the reason behind it which can be corrected with just basic understanding of communication between the horse and the rider. This article helps in understanding the need for further research that needs to be done on the psychological factors affecting the horse and the rider and also to research on how the rider can communicate in better ways with the horse for performance enhancement. Various journals such as Journal of sports and exercise Psychology, Journal of veterinary science, New Perspectives on Equine Assisted Interventions, Journal of veterinary behavior and Anthrozoös, were referred to for this review. 62 articles were selected at the initial stage of screening out of which 31 articles were selected for this article. It can be understood from these articles that there is a high amount of correlation between the effects the rider has on the horse whether

positive or negative influence. According to these studies, it can be understood that with more practice and time the communication between the horse and the rider will be improved which in turn would improve the performance as a whole helping in performance enhancement in equitation and the partnership between the horse and rider.

Keywords: Advantages of horse-riding, Equitation, Horse-human interaction, Human-horse relationship, Injury in riding, Psychology of rider, Therapeutic bonding,

Introduction

Affects the rider has on the horse while riding

In other sports, an athlete can perform to their optimal level if their physical and mental ability allows them to do so. Any decision an athlete makes or any step they take depends on their individual perspectives and training. But when it comes to a sport like equitation, it doesn't just depend on what an individual does but it's always a relationship between the horse and the rider. Horses are very sensitive towards the mental state of their rider mounted or while beside the rider and also the slightest change of mind or aid given by the rider. In such a case the communication between them has to be harnessed so well as it affects the performance since the horse can detect both positive and negative signs of the rider such as the positive being self-efficacy, relaxed and good emotional state whereas negative is being anxious along with fear of performance and self-doubt which would reduce the performance of the horse as its partner is signaling something negative causing fear in the horse (6). So, the psychological state of a rider is very important as the horse is very sensitive to it and can understand its rider even without any external action or cue. Psychological skills such as relaxation (the equestrian has to be calm before the competition because raise in their heart rate affects the horses state of mind), attentional focus (a beginner would focus more on the position and diagonal whereas an advanced rider for show jumping or dressage would focus more on the map of the

arena), following a routine in doing things would keep both the rider and the horse relaxed at the time of competition as they both are familiar with the process such as having certain set time of practice or routine steps of warm-up , self-talk and self-efficacy which help the athlete in knowing ways to gain confidence which would help in better performance which would in turn enhance self-efficacy to further perform better in other competitions (11,13) hence these psychological skills are important for enhanced performance (12). Almost all the riders agree to the fact that the horses react and have a change in their behavior as well as performance based on the mood state the rider is in while riding (7). Also, high levels of correlation were seen between the personality of the rider and the behavior of the horse while performing in the show (8). According to the study done by (4), it was known that the mental state and attitude of the rider or handler around the horse affects the way the response of the horse since a more relaxed rider or person with a positive attitude keeps the horse relaxed when compared to a person with negative thought process increased the heart rate of the horse when they stroked them (5).

Injury in horse riding

The horse can sense nervousness and fear not only of the rider but also about the crowd that's around the arena which might, in turn, make a nervous horse putting both the participant and the horse in danger of injury (1). It is known that the risk of injury for riders and other people who are around horses have 20 times higher chances of injury than motorbike accidents causing injury (1). A lot of factors were comprehensively indicated as the cause of injury such as age, experience, the health of the horse where fear of the horse was the highest-rated. But the actual cause of the increased risk of injury for both the rider and horse is improper understanding about the horse and training of the rider (2). So, understanding the horse behavior and training

accordingly was highly recommended to prevent injury since horses that are not comfortable tend to be more aggressive towards humans (3). Horse riding is known to be one of the most dangerous sports, (9) which is mainly caused due by miscommunication of aids or relation between the rider and the horse. It is not only the horse that needs to be free from distraction but also the rider needs to have high concentration levels to understand the cues given by the horse and react quickly according to it to avoid miscommunication between the rider and the horse which might affect the performance of the duo leading to lower levels of confidence further increasing the chances of self-doubt and injury as the rider might not be mentally strong. There are many studies done on how the confidence of the horse would affect its behaviour but there are very few studies done on how the human behaviour affects the horse and the way it performs or responds to the rider (4,5,14) which paves the way to know the impact the rider has on the horse's behaviour. Since horses are prey animals, they have higher levels of flight instinct when confronted with the slightest sign of danger by the leader which is a social communication way needed for their survival (17,18). Horses use their body as an aid for communication, they are experts at understanding as well as using their body to communicate in return (19) which is why they react as quickly as possible to their rider's heartbeat, muscle movements and body positions or aids given by the rider's body. There are certain ways which horses communicate to the riders on how they are currently feeling which if understood can lead to avoidance of injury for both rider and horse as well as it would be helpful in communicating better. Ear position of the horse is one of the most well-known signs of a horse's emotional state. If the ears are turned towards the front, it implies interest and happiness of the horse whereas if they are turned backwards, it indicates a disturbed or agitated state. A horse that is in a calm state and ready to follow their rider has its ears towards the sides (21). The position of the rider is very important as the horse is very sensitive to the way the rider sits on the saddle as each position communicates to the horse what it needs to. When the rider is in

asymmetry position that is the shoulder, hip and heel not being in line or the muscular activity which leads to spina instability which mostly happens for novice riders there are greater chances for injury to occur (27). There is a need for a deeper understanding and increased amount of research done to know how the performance of the rider and the horse is affected by the psychological factors (10,15,24,25,26) which would help in creating a better understanding and enhanced performance.

Advantages of horse riding

Therapeutic

In general animals such as dogs and cats are known as live antidepressants which make the humans feel happy and relieve stress (28). Likewise, the partnership that's achieved between the horse and rider makes the rider feel more relaxed, cope with stress, anxiety, learned to manage their emotions and feel happy as they feel they can turn off the outside world for a while when they ride and feel happy about it. It also helps the rider keep calm and learn to be patient as they realize things don't always go as planned with riding and continued effort only can help them achieve what they desire (29). Apart from riding giving just simple pleasure and ways of coping it has even helped people with clinical disorders such as ADHD and depression to feel better. People have reported that only after riding they feel a sense of calm where their mind seems relaxed which wasn't achieved with any kind of medication (29).

Social

Horse riding helps in improving the social factors as well where people feel they have a companion which would make them feel dependable, they can vent out without being judged and receive support and feel loved (30). Not only this but also being part of riding or such clubs would encourage riders to interact and share with other riders who have the same passion which would further increase social wellbeing of the person (29). Riding also helps in the

developmental part of the riders where they would have improved body balance, concentration and psycho-motor abilities (31).

Method

Search strategy

Various journals such as Journal of sports and exercise Psychology, Journal of veterinary science, New Perspectives on Equine Assisted Interventions, Journal of veterinary behavior and Anthrozoös, were searched for articles on the effects the riders have on horses as well as the psychological factors that affect the partnership of rider and the horse. Keywords such as Human-horse relationship, Horse-human interaction, Psychology of rider, injury in riding, advantages of riding, Therapeutic riding, Equitation were used. The collected data from the mentioned journals were read through and relevant data was considered for further study.

Inclusion/Exclusion Criteria

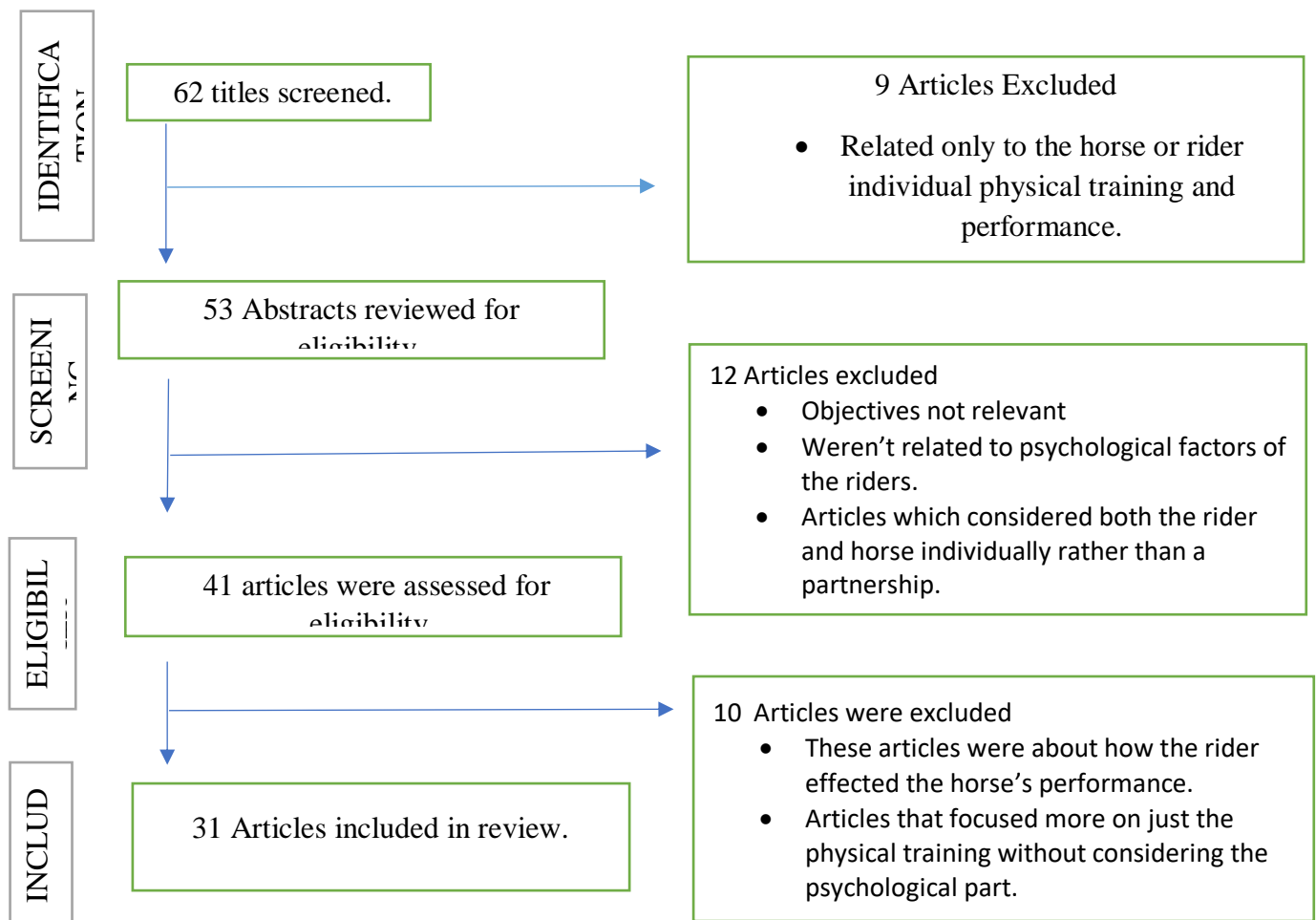
This article consists of: a) Research, review and viewpoint articles, b) article that give data for studies done on the effect a rider has on the horse, c) Articles that give information on how the rider affects the way a horse performs d) Studies include novice and advanced riders, d) Studies include all forms of riding such as Dressage, Show-jumping and leisure, e) Meta analysis, Quantitative and qualitative studies were considered for this article.

Studies were not considered in this review if a) It included non-equestrians, b) Studies were done only the horse or human behavior without adding the relationship between them in the study.

Author Note: This study was not preregistered. Data and study sources are available for further reference in the reference section.

Results

Study Selection



dressage riders were trained on psychological skills for a period of six weeks. Even though the scores of their competition didn't increase, all the riders felt a decrease in pre-competition anxiety and an improvement in concentration levels which they felt had led to a better response from the horse (10). A study was done to know the effects of an equestrian's mood states on the horse using a 30 item POMS questionnaire which was answered a few minutes before entering the ring. Riders were split based on their experience in dressage into 13 novice and 13 advanced level riders as per the British Dressage. It showed that advanced level riders showed lesser level of confusion when compared to the novice riders and the effect size was also large which in turn acted as moderator for their performance (15). A study was conducted where 186

athletes participated in an online survey in order to understand how psychological skills were used in training of equestrians. Results of this study showed that even though goal setting and confidence improvement were used the most ($P = 0.017$) and relaxation was reported to be used the least ($P = 0.017$) in comparison to other psychological skills they didn't show much difference between the usage of the two ($P = 0.52$). It was understood from this study that different psychological skills were used to train equestrians based on their experience level and also depending on the stage of the competition. This proved their hypothesis that trainers were not using much of these psychological skills in their training incorrect as majority of the coaches used PST while training (16). A study to assess the mental skills used by equestrians before the event was done using a psychological inventory for Equestrians which was developed in two phases. A sports psychology inventory was developed to assess the mental skills of equestrians which consisted of 32 items. There were 668 respondents for this inventory which gave results proving that advanced level riders showed higher mental skills when compared to novice level riders (20). A study was done on 40 students to assess how the horses react towards the humans based on their attitude and behaviour using an experiment where all the samples had to walk the same mare around a set course. Both the horse and the human were assessed with a set of tests and observations where the humans were given a questionnaire at first to test their attitude and confidence which improves with experience and then they were assessed by behavioural observation just by looking at the horse's behaviour towards the human, the hand position and lead tension with which the human is leading the horse. Whereas the horse was assessed by observation of how it reacted towards each human by its ear movement, ear and head position and if the horse showed any resistance while being led through the arena. From the results of questionnaire, it was seen that the ear movement ($r = -0.68$) of the horse was reduced when it was led by humans who had a positive, strong attitude and less lead tension ($r = 0.32$). The only variable that showed significance out of the variables

of human behaviour ($\beta=0.68$, $p<0.001$) was attitude humans had towards the horse which showed reduced resistance (0.83), lowered the head (-0.50) and had their ears facing forward (-0.59) (22). An investigation was done to study how nervousness of humans affected the horse where 27 riders and 37 horses were a part of an experiment and the heart rate of both the riders and horses were calculated simultaneously. When the rider went from one point to another on a normal ride both the heart rates were normal and later the rider was informed that an umbrella would open at one point and were asked to ride but the umbrella was not opened as said. This resulted in an increased heart rate of the rider which simultaneously increased the heart rate of the horse which was caused just due to the thought of the rider that the horse would fear the situation even though nothing actually happened. Physically the rider was more prone to shorten the reins just before the spot where they were informed of the umbrella opening which only got the horse alert and prepared for any sudden occurrence of danger which eventually increased its heart rate just like the riders which showed how the riders nervousness effects the horse (23).

Discussion

Equestrian sports mainly depend upon the relationship between the horse and the rider as well as the capacity of the rider to manage their psychological factors such as emotions as well as thoughts just enough that it wouldn't affect the horse. With time and practice riders usually are prone to developing management of their psychological factors that would help them in management of emotions and other thoughts as they would be aware at that stage that their mind set or thoughts would affect the horse and performance as a whole more than it does to them. Riders need to understand the importance of communication and how sensitive the horses are towards what they think and towards the slightest postural changes. This is a completely different sport in comparison to all the others only because it involves the horse-rider partnership equally where even if one doesn't perform well then go down together. In

Equestrian, a performance cannot be judged only based on the skills a rider has or just by how good the horse has been trained, in spite of both the rider and horse being good individually, a good performance or in that matter just a performance is possible only if the quality of the partnership is good.

Since, there is great emphasis on the forming the partnership riders need to first understand their horse, making sure the horse trusts the rider and so does the rider which would help build the confidence and bonding in the partnership. The rider would usually understand what the horse is trying to communicate with each sound or body movement with time and experience for example they would know when their horse is doing a happy ride and when it would buck just by looking at its ears, head position and the tail swishing. The rider needs to be aware of these signs as well as the horses emotional state and readiness to ride. All these signs can be understood by the rider only with time and interest they take in forming the partnership which is challenging because each horse is different, moves differently and fears different things. So, the rider needs to take time to know the horse well and also allow the horse to be confident in their rider which would prevent fall and injury and increase awareness of the rider of what they can expect from their horse. This can only be achieved with a lot of time, effort, Sensitivity towards the horse movements and patience and can never be forced. In case this bonding doesn't happen both the rider and the horse are prone to injuries. Knowing the horses use their body as a way to communicate the rider needs to thoroughly understand that even the slightest movement of theirs would be taken as a signal or communication by the horse they ride and it would eventually give what is asked by the rider consciously or unconsciously by using their body as a communication aid.

Apart from the physical aids, a rider's psychological factors and thoughts play a very important role in the performance as it is known that a rider's mind and heart rate directly affect the horses mind and heart rate. Psychological skills training for riders has helped them to build confidence

that they would succeed. It is a need for the rider to not just think but really have in mind that they can perform the task in hand only when the horse would wish to do the same. Only when the rider has fixed in their mind that they have the ability to jump over the fence the horse would gain confidence to do so. If the rider is going to have fear and lack of confidence then it's next to impossible for the horse to do a task which it could have done with a confident rider. Since horses are known to be very quick at recognising what the rider's mind says it's essential for the rider to be positive, confident and never nervous or fearful since the horse would reflect the same while riding.

So, even if the rider and the horse are the best individually, only if there is effective communication and a good relationship between both the human and animal sporting partner only then there would be great performance in the arena. It's always said that the best horse and rider is when they can ride around the ring without any sign of the aids given by the rider to the horse or without any signs of communication seen between them while riding. They seem to be moving together as one so smoothly and effortlessly which is developed through many sessions of practice and understanding of each other to form the perfect horse-human relationship. This would lead the rider and horse to ride gracefully.

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