Horses are known to be gentle, trusting, and loving creatures. Going for trail rides or participating in riding lessons can be an enormous stress reliever and a great way to take your mind off other problems. Many find that the horse’s gait and gestures are a type of therapy all their own. Feeling the horse move below can be a calming, rhythmic motion and touching the horse can combine many senses. The overall absolute dedication of the horse benefits the individual. Over time, there have been advancements in rehabilitation that now use horses as a form of therapy. The Professional Association of Therapeutic Horsemanship International (PATH Intl.), a nonprofit equine-assisted therapy business for special needs clients, helps nearly 62,000 children and adults and about 4,000 veterans and active-duty military clients each year. There are 866 centers worldwide to help individuals overcome physical, mental, and emotional challenges through working with the horse. They use therapeutic riding, driving, interactive vaulting, competition, and ground work (PATH). This enables all personnel to be able to use a horse no matter the disability. Equine therapy can help improve muscle movement as well as aid in certain sensory details. Therapeutic riding business specialties range from physical handicaps, Autism, or simply just mild learning impediments. This type of therapy is increasing because of the noticeable difference in customers after riding lessons. Discovering the overall effect of horse assisted treatment is important for future therapy needs. The Social and Behavioral Sciences Journal published research from 2014 examining hormonal differences before and after horse assisted therapy sessions. Horses have a great ability to help physically, mentally, and emotionally challenged individuals accomplish goals. This study will help discover how useful equine therapy is for future medicine.

When a patient enters the facility, it is intimidating at first. The new environment overwhelms their senses and forces them to break out of their comfort zone. Forming a relationship with the horse is the main priority. The patient will learn how to approach the horse correctly, as well as learn basic skills to groom and ride. For example, horses require grooming because they do not do it themselves. Instructors use this idea as a way to work on motor skills. Patients will learn the name of certain brushes and how to use them. Another reason that equine therapy works, depending on the severity of the disability, is because patients find it difficult to relate and connect with peers. Having one-on-one time with the horse and participating in related activities encourages the individual to become comfortable and relax. Being close to the horses, allows bonding and affection that they are not use to. Although the horse is large and sometimes intimidating, they are gentle characters that can connect and take commands from their directors if trained accordingly. Equine therapy doesn’t just help social ability. It can range from physical therapy, psychotherapy, and assisted learning. Also, this type of therapy aids in neurological and neuromuscular disorder treatment (Sanchez et al. 2014). Therapy in the physical aspect will use riding skills, however this does depend on the participant and if they are capable of riding or holding reins. Psychotherapy with a horse can help decrease stress levels and episodes of mental behavior. Assisted learning using equines enables the student to learn from the horse and its accessories. For example, supervisors will repetitively say words and have the student repeat the words back if that student needs to work on their speech. Also, life and motor skills can be taught because individuals will learn to care for the horses and the tools will work their muscles and reflexes, such as the saddle or a brush. Altogether, horse assisted therapy is a great way to ensure better lifestyle and learning for the individual in need.

In order to understand the effects of horse therapy, it’s important to understand the hormones that are involved and their affects. Oxytocin in the body is involved in creating relationships. Identifying and creating honest relationships is important and is linked to tenderness and the act of touching (Sanchez et al. 2014). It is produced in the hypothalamus and released from the pituitary gland into the bloodstream. It creates the feeling of a good mood and also relieves stress. Progesterone is also important because it has the same effect as oxytocin. It has the behavioral tendency for social attachment (Sanchez et al. 2014). In contrast, cortisol is the stress hormone. It comes into the body during times of acute stress or exercise (Aronson, 2009). In the study about the effects of equine
therapy, it was hypothesized that the cortisol levels would decrease after times of equine therapy and oxytocin and progesterone would increase. This would mean that the individual feels less stress and more relaxed. Oxytocin is found to counteract cortisol’s effects (Sanchez et al. 2014). Therefore an increase in oxytocin is beneficial in both decreasing the individuals stress levels, as well as in bettering their mood. Overall, oxytocin, cortisol, and progesterone all play major roles in the study outcome and are equally important for reducing stress.

Understanding the hormones involved helps discover the effects of the study performed. It has been found that the blood plasma of autistic individuals contain lower levels of oxytocin (Sanchez et al. 2014). Since the oxytocin levels are low, Autistic individuals tend to be more socially secluded from others. This causes no formation of close relationships and further affects their social life. Because of these findings, eight autistic male children from ages 5-15 were used for this study. Researchers collected saliva from each participant before the horse therapy session and after. The sessions were about an hour long, therefore collections were about an hour apart. This study lasted for 12 weeks and collection of the saliva occurred on the same day of the week and at the same time (Sanchez et al. 2014). The cortisol and progesterone levels were recorded from the saliva samples because they so closely relate to oxytocin. The researchers found that the equine therapy decreased the cortisol levels and increased progesterone levels as shown (Sanchez et al. 2014).

Table 1. General levels (X ± SE) of Cortisol (ng / ml) and Progesterone (pg / ml) in saliva in individuals with autism Pre and Post Horses Assisted Therapy in 12 weeks treatment (n = 8).

| GENERAL RESULTS |
|-----------------|-----------------|-----------------|-----------------|
| CORTISOL (ng/ml) | PROGESTERONE (pg/ml) |
| Pre-Therapy | Post-Therapy | Pre-Therapy | Post-Therapy |
| 8.71±1 | 6.58±0.63 | 32.78±7.6 | 60.05±6.72 |

The decrease in cortisol is desired because it is the stress hormone. Less cortisol means less stress. This demonstrates that the horse therapy reduced stress levels in the individual. The therapy also found an increase in progesterone after the sessions. Progesterone improved their moods and helped with their social interactions. Overall, the study showed that equine therapy in autistic individuals caused an improvement in mood and behavior and declined stress. Discovering this information will greatly impact future treatment for those with disabilities.

Horse assisted therapy is concluded to be beneficial for impaired individuals because it has been proven to enhance attitude. Large horses may be intimidating, but this forces the individual to come out of their shell and form a bond with the horse. Together, they earn each other’s trust. This greatly impacts the individuals overall wellbeing by forming new relationships when they otherwise could not. Techniques practiced during therapy, such as using equine equipment and physically riding or driving the horse, further assists the patients in their goals. Accessories improve motor skills in certain individuals with handicapped arms or hands by exercising different muscles. Riding or driving the horse stimulates the senses as well as gives the individual a sense of freedom. Overall, being near the horse stimulates the individual causing a mood boost and physical outcomes that they would not be able to find anywhere else. Progesterone is higher in riders or participants after a therapy session causing cheerful and uplifted behavior. Also, cortisol levels are decreased after therapy which decreased the stress of the individual. The study proves that horse assisted therapy has beneficial aspects to the participants that partake in it. Understanding these concepts will help the assisted therapy businesses thrive and continue to service the impaired. Equine therapy could one day be a large part in the treatment for different disabilities. It is a vast business that assists the mentally, socially, and physically impaired population. Horses have confirmed to improve frame of mind and help with social and physical problems. Equine therapy businesses, such as PATH, should continue to thrive and help individuals succeed.
Works Cited

