Development of a Novel Objects Reactivity Test to Improve Horse Selection

Abstract Summary
The horses that serve equine assisted activities and therapy programs impact the effectiveness of therapy, and they constitute a major program expense. No standardized criterion of temperament exists to help identify a successful therapy horse, yet behavioral problems are a major reason that horses fail a trial period or are released from a program. This project set out to identify differences in temperament that distinguish working therapy horses from companion horses by comparing the reactions toward novel objects of 21 companion horses and 22 therapy horses (from the Little Bit Therapeutic Riding Center.) The therapy horses were significantly less avoidant and less anxious than the companion horses on many elements of the novel objects test. These results suggest that a useful, simple, and quick test of reactivity could be developed to select horses for therapy work, improving trial horse selection and reducing program costs.

Introduction/Problem: The horses that serve equine assisted activities and therapy programs impact the effectiveness of therapy, and they constitute a major program expense. The selection of horses typically involves assessing them for soundness, previous training, general willingness to be handled and ridden, and for fit with particular program use. No standardized criterion of temperament exists to help identify a successful therapy horse, yet behavioral problems are a primary reason that horses fail a trial period or are released from a program. Improving trial horse selection can lead to fewer trials and reduce program costs.

Detail/Purpose: This project set out to identify differences in temperament that distinguish working therapy horses from companion horses. Companion horses were chosen because they share many of the same qualities as therapy horses in terms of soundness, ease of handling, riding frequency, and training history. Identifying temperament qualities that distinguish therapy horses from companion horses is a critical first step toward developing a behavioral screening test.

Detail/Methods: This study compared the reactions toward novel objects of 21 companion horses from six boarding and private stables, and 22 therapy horses from the Little Bit Therapeutic Riding Center. The horses varied in age (5-30 years), sex (13 mares and 30 geldings), and breed. Reactivity to novel objects is a reliable and stable dimension of temperament in many mammals, and horses are no exception. The novel objects used in this study were helium balloons, an umbrella, and a blue tarp. Horses were tested while on lead at four levels of intensity: (1) freedom to approach or move away from the objects; (2) led up to each object; (3) led around each object, and (4) touched by each object. From videotapes, each horse was later scored on behavioral (approach-avoid), emotional (fear/anxiety), and physiological (heart rate) reactivity at each level and object.

Detail/Results: Therapy horses were less avoidant and less anxious than companion horses on several elements of the novel objects test. Nearly twice as many therapy
horses (75%) as companion horses (42%) spontaneously approached and investigated the novel objects, and therapy horses were also more likely to explore the objects when led up to them. Emotionally, companion horses were significantly more anxious/fearful than therapy horses across all objects and levels of intensity. Although these patterns were the same for all objects, the umbrella and helium balloons elicited significantly more reactive anxiety and avoidance than the tarp.

**Summary/Conclusion:** The results of this study suggest that a useful, simple, and quick test of temperament may involve rating a horse's spontaneous approach to a novel object, such as an umbrella, and its response to being touched by the object. To validate the use of this test for screening, a critical next step is to evaluate how well it predicts a horse's success in a therapy program. A validated, standardized behavioral screening test would improve selection of program horses, thereby reducing the time and expense associated with failed trial horses and the management of horses poorly suited for therapy work.