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August 2011
Volume 49 Number 4
Article Number 4IAW4

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Development and Assessment of an Emergency Responder Horse Handling Training Program in Virginia

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Abstract: With approximately 9.2 million horses in the United States, there should be adequate training for emergency personnel who may respond to an event involving horses. A training program combining theoretical and practical instruction was developed to familiarize emergency responders with horse behavior, first-aid, and safe handling techniques. Surveys evaluated participant experience and comfort level, as well as perceived value and effectiveness of the program. Over 94% reported an increased confidence handling horses and over 78% learned "a lot" about topics covered. Single day training programs appear to be effective in improving knowledge and confidence in horse handling in emergency responders.

Introduction

Over 215,000 horses reside in Virginia, an increase of 26% since 2001 (United States Department of Agriculture, 2008), and an undocumented number are transported into or through the state for competitions, breeding, or recreation. Given the large number of equids in the Commonwealth, there should be adequate emergency preparedness training for first responders, horse owners, and other equine professionals. First responders to any emergency often include fire fighters, police officers, or emergency medical personnel who may have little to no training in equine behavior or handling, and instinctive reactions by the horse can quickly make an already stressful emergency situation even more perilous (Gimenez, Gimenez, & May, 2008).

Miller, Grisso, and Lambur (2006) evaluated the position Extension should take with respect to educating key individuals and industry professionals during emergency response situations. As a result, a website was developed as a resource for educational materials for Extension agents and emergency response personnel to access and prepare for emergency situations. However, some training requires hands-on experience in order to be effective. In response to a pilot survey of emergency responders, a 1-day training program combining theoretical and practical instruction was developed to familiarize emergency responders with horse behavior, first-aid, and safe handling techniques.

Materials and Methods

A preliminary survey conducted in six counties in Virginia Cooperative Extension's Northern District assessed interest in emergency responder basic horse handling training. Recipients were contacted by phone to explain the purpose of the survey and determine the appropriate person to whom to direct the instrument. Thirty-three responses were returned. Over 60% of respondents indicated they had responded to emergency calls involving horses, the majority of which involved vehicular accidents (39%). Only 27% reported having a veterinarian on site during the response. Less than 24% stated they were comfortable handling horses, and only 21% had received any formal training on handling horses.

A 1-day program was developed to educate emergency responders on equine behavior and basic handling, equine first aid, and trailer safety. Topics were first presented in lecture/discussion format using presentations, handouts, and demonstrations of equipment to be used. This was followed by live demonstrations conducted by instructors.

Participants were then divided into groups of one to three and partnered with an experienced volunteer and a horse to receive hands-on practice. Participants were coached through a set of handling skills, including safely approaching and haltering a horse both in a stall and an open paddock; leading, turning, stopping, and backing a horse; tying to an appropriate site with a quick-release knot; and releasing the horse both in a stall and an open paddock. A discussion on vehicle-trailer attachments was conducted, using both a bumper-pull and a gooseneck hitch as examples, and participants loaded and unloaded horses from a trailer. Finally, basic first aid techniques, including assessing pulse and respiration rates, mucous membrane color and capillary refill time, and bandaging methods were practiced. Pre- and post-program surveys were administered to determine previous participant experience in handling horses as well as comfort level doing so, and perceived value and effectiveness of the program.

Results

A total of 137 emergency responders, including fire fighters, animal control officers, and police/sheriff's officers, participated in eight different sessions of the training. Pre- and post-program surveys were collected from 86% of participants.

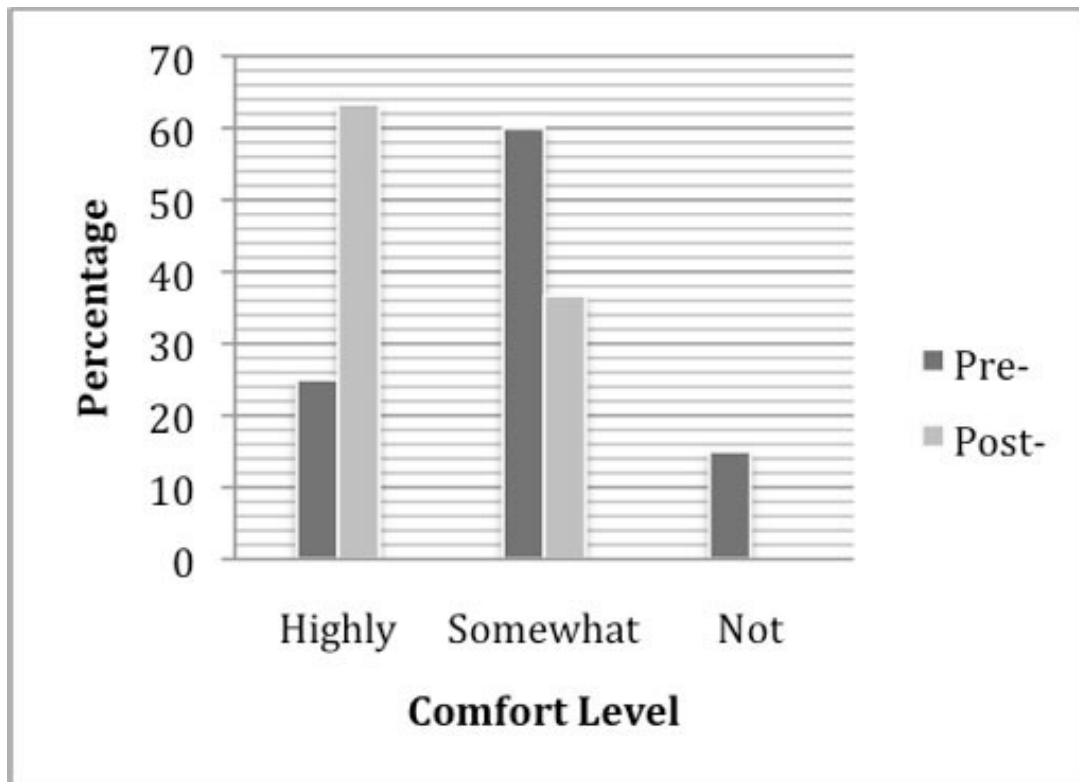
- Over 82% reported no formal horse handling training prior to the program.
- Unsurprisingly, participants having little or no time owning or working with horses reported the lowest levels of experience, with over 30% reporting both no time owning horses and no experience with them.
- While 15% indicated they were "not comfortable" handling horses before the program, none of the

participants held this view by the conclusion of the training (Figure 1).

- In total, 94% became more comfortable handling horses as a result of the program.
- All participants stated they would recommend the program to a colleague.

Figure 1.

Increase in Self-Reported Comfort Level in Handling Horses in Emergency Responders After Participation in a 1-Day Hands-On Training Program



Discussion

Given the large number of horses within Virginia, the probability of equine involvement in emergency situations is high. The first responders to arrive will most likely have little or no experience in handling large animals. Well-meaning responders can exacerbate an already stressful situation by mishandling the animal and may cause greater injury by inappropriately attaching equipment in an effort to extract the horse from an over-turned trailer or a ditch (Gimenez et al., 2008). Another common misconception is that a veterinarian will know how to rescue an animal from entrapment situations (Gimenez et al., 2008). Entrapment and rescue is a specialty of firefighters and rescue services, not veterinarians. The two must work together to effect a safe rescue.

Education and preparation are keys to addressing this situation, and education is part of Extension's mission (Miller et al., 2006). However, Telg et al. (2008) surveyed Extension agents to assess their confidence and

ability to train people in emergency response and preparedness, and found that Extension agents themselves needed more training. While not originally intended as such, this program was also used to train Extension agents so that they could return to their localities and conduct the program.

Guided by the results of the pilot survey, the program was designed to expose participants to basic knowledge and skills, and make them more comfortable with handling horses. Post-program survey results strongly suggest the program was successful, but there was consistent feedback that more advanced training was desired. Of interest was the increased comfort level of participants when handling horses. Although the horses and situations encountered during the program were much less stressful than during an actual emergency, simply having handled a horse may enable responders to be more prepared. Even if they were too uncomfortable to handle the animal during an emergency, their knowledge and understanding of horse handling, behavior, and first aid could still be beneficial in assisting other rescue personnel. The ability to coordinate the rescue effort and provide proper instruction would help keep people safe and effect the equine rescue more efficiently.

Ninety-four percent of participating emergency responders were from northern Virginia, an area of the state that contains the two counties with the largest horse population (USDA, 2008) and is home to the Upperville Colt Show, the Virginia Gold Cup, and many horse large farms. Unsurprisingly, most were at least somewhat familiar with horses, and only 15% reported not being comfortable handling horses before attending the program. A much higher percentage might be uncomfortable in more urban communities.

This 1-day training program appeared to be effective at increasing knowledge of equine behavior and first-aid, and at improving the comfort level and confidence of emergency responders handling horses.

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