**Validation of a simulator for the supplementary teaching of farriery skills to veterinary students**

*Johanna Sharples, Renate Weller, Peter Day*

*The Royal Veterinary College, University of London*

Veterinary graduates in the United Kingdom are required to be competent in a number of day one skills, according to the Royal College of Veterinary Surgeons (RCVS). Students must develop these skills during intra or extra mural rotations or in university clinical skills centres. However, due to multiple reasons these opportunities can prove limited.

The aim of this project was to develop and validate a multi-purpose equine foot simulator. The simulator will provide a safe and realistic environment for undergraduate veterinary students to practice day one skills involving the equine foot. It was developed by modifying a commercially available hinged-leg model named the “Blacksmith Buddy” (Champagne Horseshoe Company, Arcadia, United States of America). Students could thereby use the simulator for practicing: the use of hoof testers, shoe removal, paring and rasping the hoof and hoof bandaging. Instructional sheets were designed to accompany the simulator, and the availability of the simulator in the Clinical Skills Centre (CSC), was advertised to clinical students via mass e-mail.

To validate the simulator as an effective teaching aid, its effect on student’s competency to use hoof testers and student’s opinion of the simulator was determined. 246 fourth year Royal Veterinary College (RVC) students were examined on using hoof testers, during their formative Objective Structured Practical Veterinary Examinations (OSPVE). Results were compared between students who had used the simulator and those who had not. An online questionnaire was then sent out, asking students about their previous experience, their experience of the OSPVE and their opinions of the simulator, if they had previously used it.

Overall, 58.9% of students passed this OSPVE station. 15% had used the simulator prior to the examination, 85% had not used the simulator. There was not a statistically significant difference in OSPVE results between the two groups (p=0.53). There was a significant relationship between the hoof tester OSPVE results and students wanting to go into equine practice (p=0.02), being confident performing the OSPVE (p=0.02), and wanting more opportunities to practice (p=0.04). Additionally, students who had used the simulator were more likely to assess their skills for using hoof testers as adequate (p=0.03).

The study concludes that use of the simulator improved students’ self-assessment of their skills for using hoof testers and that students who were confident in their skills were more likely to pass the hoof tester OSPVE.

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