

Enhancing the Recruitment and Retention of Food Supply Veterinarians: Changes in Knowledge After the Food Animal Production Tour at Texas A&M University

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Introduction

The importance of recruiting and retaining new food animal veterinarians is well known, and many groups are working on recruitment tools and programs. One of the recognized barriers to interest in food supply veterinary medicine is students' lack of experience and concomitant discomfort with food animal practice. Therefore, in 2008, we began offering an elective to first and second-year veterinary students, the Food Animal Production Tour, to provide students with little experience an opportunity to learn about large state-of-the-art food animal production units. We also wanted to provide students with demonstrated interest and more experience an opportunity to solidify and advance their career goals. The objective of this study was to assess the learning outcomes of the course by administering pre- and post-surveys of students' self-evaluation of learning as well as pre- and post-tests of knowledge of food animal production and veterinary roles.

Materials and Methods

The Food Animal Production Tour is a one-week bus trip to swine, dairy, and beef cow-calf and feedlot production units, to harvest and diagnostic facilities, and to producer groups, in the company of local veterinarians and extension personnel. Ten students and three faculty members take the trip. Using the framework of perceptual knowledge evaluation, we asked students in 2008 and 2009 to self-evaluate their level of understanding (on a scale of 1 to 4, 1 being poor and 4 being excellent) of topics related to the learning objectives of the course. We also gathered comments on students' perception of how the course had changed their career plans. In 2009, we added a pre- and post-test of knowledge, which included indicating whether students intended to perform particular activities as food animal veterinarians. We calculated mean differences from pre- and post-tests for both years.

Results

The biggest changes in students' perceived level of knowledge about cattle, with both years of the tour included, were mainly feedlot- and harvest-related knowledge. For example, a greater than 1.5 units of change in perceived knowledge were noted for the following learning objectives for feedlots: List categories of personnel involved in the beef production cycle; Identify points where biosecurity is important; Describe the role of the veterinarian in the feedlot; and Identify points in the feedlot where a veterinarian could provide services and training to enhance productivity. Students also perceived an increase in the following harvest-related knowledge: Identify control points for evaluating animal welfare; Identify where food safety is addressed; and Understand the impact of health practices performed prior to harvest. Most students commented in writing and in informal discussions that the tour was a significant learning experience, which galvanized or cemented their interest in food supply veterinary medicine. In addition, changes in knowledge, both students' perception of knowledge about cattle production and medicine and students' actual knowledge of importance of veterinary activities, increased during the tour. Several students indicated in written comments that their eyes had been opened, that they were now considering other opportunities to enhance their food animal experiences, and most significantly, they were now more comfortable considering a food animal career.

Significance

Evaluating changes in knowledge is an important adjunct to immersion opportunities for veterinary students considering food supply veterinary medicine careers. The increasing importance of outcomes assessment, particularly where significant money is being spent on arranging learning opportunities, results in a demand for demonstrated changes in knowledge and behavior.