

# Professional Development Training through the Veterinary Curriculum at the University of Minnesota

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### ABSTRACT

Veterinary education has traditionally focused on clinical skills. Success as a practicing veterinarian, however, also depends on good communication skills, emotional intelligence, and other professional skills that can lead to greater employee and employer satisfaction and increased practice revenue. The University of Minnesota has approached this curricular need by convening a task force and creating a series of courses aimed at improving leadership skills, teamwork, and verbal and written communication; managing conflict; and understanding ethics and personal finance. This article describes the evolution and structure of these professional classes and the challenges in securing faculty and student buy-in essential for success.

**Key words:** communication, curriculum structure, skills, knowledge, professional attributes

### BACKGROUND

Professionalism in the health sciences has been defined as behavior demonstrated through a foundation of clinical competence, communication skills, and legal and ethical understanding.<sup>1</sup> Some students and faculty resist the idea of teaching non-clinical skills of professional development in the veterinary curriculum. Time is short, and students are heavily burdened with course content and acquisition of other new skills. Historically, it was thought that students would somehow be selected for or learn the non-technical skills required of a veterinary professional as they progressed through their clinical year and externships, and perhaps as they struggled through their first years in practice. More recent information has suggested that students must be presented with information about professional development from the very beginning of their veterinary career, as students, to help them cope with the unique stresses of veterinary college and to prepare them for a diversity of careers within veterinary medicine.<sup>2,3</sup> Alternatively, the selection process for admission into veterinary programs could be altered in an attempt to select individuals already equipped with these skills. However, clinical communication is different from social interpersonal communication and would be difficult to mimic in an interview setting.

Several studies have identified components of professional development training as imperative within the veterinary curriculum.<sup>4,5</sup> A survey of successful veterinarians, identified by their peers, defined several non-technical competencies required for career achievement, including business acumen; managing people, processes, and one's own life balance; and satisfying clients, stakeholders, and other constituents.<sup>6</sup> A survey of veterinarians and pet owners identified a similar set of competencies, with most involving communications.<sup>7</sup> In a survey of veterinarians in clinical or non-clinical practice,

non-technical skills were rated as important as traditional medical skills in all fields.<sup>8</sup> Specific skills required in professional development training include verbal and written communications, teamwork, managing financial resources, managing interpersonal conflicts, ethics, and leadership skills.<sup>8-10</sup>

These skills are not only valuable for the veterinarian's personal development and job satisfaction but are also measurable components of successful business. In one survey of graduates, professional development training was associated with greater financial success by 68.1% of 111 respondents, with lower staff turnover by 86.0%, and with greater client loyalty by 96.4%. There was also a positive association between more professional development training and a higher mean invoice transaction fee in practice.<sup>11</sup> Similar findings were reflected in two surveys of recently graduated veterinarians, in which it was reported that lack of professional development training was evident in the inability of new graduate veterinarians to work with staff or communicate with clients at the appropriate level and to anticipate clients' needs.<sup>12,13</sup> A survey of Dutch dairy farmers managing large dairy herds identified lack of conflict management, communications, and business training as serious concerns keeping them from using veterinary services.<sup>14</sup>

Teaching of these skills requires experiential learning and practice in a judgment-free environment. Students often feel that they do not need this training; after all, they have been communicating for years. However, it has been shown that although medical professionals are competent in the aspects of communications used in social conversations, they are deficient in the specific forms of communication required in medicine without specific communications training, even after 10 years in practice.<sup>15</sup> Examples of appropriate teaching and learning strategies for these skills include small-group discussion sessions,

role-plays, and objective structured clinical examinations (OSCEs), which involve role-plays with trained simulated clients.<sup>16</sup> A broad variety of experiences is vital to capture students' interest and demonstrate its relevance to them.

The objective of this article was to provide a framework for veterinary schools considering the creation of a professional development curriculum.

### **CURRICULAR OFFERINGS**

Before 2007, courses presenting professional skills were coordinated and taught by a single faculty member who was not a clinician or researcher at the college, and it was subsequently recognized that a group effort in coordination and teaching was required to create a more relevant course series. As a result, a task force made up of faculty from all academic departments, administrators, and support staff, including the veterinary medical librarian and veterinary hospital social worker, was assembled to oversee the creation of a more cohesive and practical experience for veterinary students.

The task force's first goal was to identify what information presented in the course series was core. This information was associated with the creation of learning objectives and the correlation of course activities and assessments with those learning objectives, in response to faculty and curriculum committee concerns about how much time in the curriculum was devoted to these courses. Discussion by the task force with input from student representatives and interested parties from all college departments revolved around determination of core content, pass-fail versus A-F grading, and the request for appointment of course coordinators to include some basic scientists and some clinicians. The initial series of course offerings was assessed using student evaluations shared with all task force members, and the next course offering was altered to recognize redundancy of topics or lack of necessary content. Some course offerings were altered in their presentation as a result:

- The former single day-long session on grief and euthanasia was replaced with two shorter sessions split by several weeks and accompanied by student self-reflection.
- Presentation of information on sexual harassment issues was replaced with a reading and large-group discussion.
- Instruction on searching for information was moved to be presented "just in time" so students would immediately use new information literacy skills to search the literature, answer medical questions, and write sample medical records.
- Some topics deemed unnecessary by students were removed (time management), and others were retained without regard to student acceptance (personal finance).
- One proposed additional course, a practicum based on readings and online cases, was decreased in scale and introduced as a component of the first-semester course offering.

The task force also identified topics that had been placed in Professional Development as placeholders and then never moved into a more suitable course. The task force met with the curriculum committee to determine appropriate course placement for these topics.

The resulting product of the task force consisted of a required series of five courses that span the first three years of the veterinary curriculum. Beginning with freshman orientation and then spread throughout the first two years of the curriculum are the concepts of personal responsibility and servant leadership, defined as the use of personal influence to strengthen the profession from within.<sup>17</sup> All incoming students spend two days at an off-campus site, as part of the two-credit Gopher Orientation and Leadership Experience (GOALe). The GOALe orientation is a two-day experiential training experience that involves a combination of large-group presentation, small-group experiential, and large-group experiential activities. The orientation is modeled on a program introduced by the Washington State College of Veterinary Medicine<sup>9</sup> and expanded into the American Veterinary Medicine Association (AVMA) Veterinary Leadership Experience. Small groups of 10-12 students are facilitated by one to three mentors. Activities in both small and large groups focus on the skills necessary for servant leadership, including emotional intelligence, communication, and conflict management. Concepts introduced during orientation are continued in monthly GOALe small-group meetings and reinforced as part Professional Development course in both semesters of the first-year of the veterinary curriculum.

Currently, Professional Development is divided into five courses with four major topics: (1) transitioning to the veterinary profession and personal management, (2) communications, (3) clinical reasoning and medical records, and (4) business management (see Table 1). Woven through all four topics and all five semesters are the themes of servant leadership and emotional intelligence that were introduced during orientation.

### **SEMESTER 1: TRANSITIONING TO THE VETERINARY PROFESSION**

Transitioning to the veterinary profession involves a new thought process for veterinary students, who must come to understand that they are a part of the profession as soon as they begin veterinary school. Coursework in this semester involves large-group presentations, small-group discussions, and reading of and reflection on relevant literature. Topics covered by reflections on relevant literature include recognition of the need for professional behavior during school as a reflection of professionalism in students' future, professional ethics, and sexual harassment. Personal management is presented with information about personal finance, addiction, and career opportunities, including diverse career options and internships and residencies. Students are also presented with information about public speaking in this semester, which is reinforced in several classes requiring small-group presentations throughout the first year.

**Table 1: Overview of Professional Development Courses at the University of Minnesota Semester of Veterinary Program**

Major topics	First (1.5 credits)	Second (1.5 credits)	Third (2.0 credits)	Fourth (2.0 credits)	Fifth (2.0 credits)
Transition to the veterinary profession, personal management	Personal finances Conflict Management Substance abuse Sexual harassment Giving successful presentations Animal use in the curriculum Professional ethics				
Communications	Inter-personal communication	Client communication Situational ethics OSCE: taking a medical history <sup>a</sup>	Written communication Community outreach—elderly pet owners Dog bite prevention training at elementary schools OSCE: physical exam and difficult client situations <sup>a</sup>	Writing medical records	
Clinical reasoning and medical records				Case-based clinical reasoning Legal and referral requirements of medical records Accessing and critically evaluating the medical literature	
Business management		Talking to clients about medical bills			Introduction to practice management Résumé writing and interview skills

<sup>a</sup> Objective structured clinical examinations (OSCEs) are graduated in difficulty from simple history taking late in the second semester, to taking a history and completing a physical examination on a client-owned animal early in the third semester, to working through three difficult client interactions late in the third semester.

## SEMESTER 2: CLINICAL COMMUNICATIONS

Communications is offered in two semesters. The first semester is prefaced by a survey asking students their attitudes about communications training. Results of this survey are presented in the first class session. Examples of responses from classes surveyed in 2008 and 2009 include agreement that developing communication skills is just as important as developing medical knowledge and varying thoughts across the class about how hard it would be to admit to having problems with communication skills. This semester consists primarily of small-group work, in which specific topics are discussed and students are required to practice communication skills and receive peer feedback. Materials used are from the Bayer Animal Communication Healthcare Project.<sup>18</sup> Topics covered include core communication skills, ethics, compliance, breaking bad news, grief and euthanasia, dealing with difficult client situations, medical errors, and talking to clients about money. Students complete a series of ethics cases throughout this semester. They also attend the Minnesota Veterinary Medical Association meeting and write a reflective piece on a seminar they attended; this is intended to model for them how they will pursue continuing education throughout their career

and is very well received. At the end of the semester, students complete an OSCE, in which their interaction with an actor trained to be a client is videotaped and evaluated by the “client” and by the student. Medical cases used in this first OSCE assess the student’s ability to take a history using the core communication skills of open-ended questioning, use of empathy, and building rapport.

## SEMESTER 3: EXPERIENTIAL COMMUNICATIONS

The second semester of communications training is experiential, incorporating the larger local community and two OSCE experiences. Although the value of simulated patients in communication training has been questioned by some researchers,<sup>19</sup> the feedback from our students has been very positive in these exercises, and the competence of instructors or facilitators may have the largest impact on student learning.<sup>20</sup> Early in the third semester, students go through an OSCE during which they perform a complete physical examination and take a history. The dogs used for this exercise have the AKC designation of Canine Good Citizen and the clients are the dogs’ actual owners. Students receive feedback from the client

and from instructors, and they also self-assess. Later in the semester, students complete a second OSCE, working with trained actors through scenarios that involve working with an angry client, admitting a medical error, and talking to a client about an unexpectedly large bill. Community outreach is also expected this semester. Students are trained to work with elderly or handicapped clients through an interactive laboratory highlighting common disabilities and are then required to visit a client with a pet, perform a physical examination on that animal, take a brief history, and return to the veterinary school with any questions or concerns. This serves a need for this portion of the community, many of whom are homebound, and for the students. Finally, students work in pairs to plan and present information about dog-bite prevention to students at area elementary schools. Throughout this semester, students keep a journal of their goals and progress, reviewing skills developed in the previous semester, setting target goals for each encounter, and reflecting on their progress after the encounters. Although the semester focuses on the student's developing an individualized personal record of achievements, we also have large-group discussions related to the role a veterinarian plays in the community, the application of the skills to clinical practice, and the implication that these activities have on their professional development.

Written communication is also addressed in this semester. Students are required to complete a multiple-choice grammar examination, which helps pinpoint specific problems in their writing; to edit a piece and demonstrate knowledge of errors noted; and to write a short description of a case for a lay audience, using information provided. Specific deficiencies are noted for students who do not demonstrate competence in all three areas and targeted remediation and re-testing are provided until competency is achieved.

#### **SEMESTER 4: THINKING LIKE A DOCTOR**

The fourth semester of Professional Development contains information about medical records and clinical decision making, emphasizing problem-oriented thinking and evidence-based medicine. Students are presented with the concept of problem-oriented clinical decision making<sup>21</sup> and work in small groups through several cases in a variety of species, with facilitation by faculty. The value of documenting case information and legal requirements of medical records are stressed. Additionally, reinforcement of communication skills, both written and oral, in lay terms (e.g., discharge letters to a client) and professional terms (e.g., presenting a case to a colleague) are incorporated into the cases presented and experienced by the students. Much of the work is done in small groups, and rubrics are used for self-assessment and assessment of and by peers for group assignments.

Proper clinical decision making relies on information literacy and using evidence-based medicine. To be a lifelong learner, veterinarians require an understanding of the major veterinary databases, how to search them, and how to critically review scholarly information to make informed clinical decisions. Instruction on literature-searching techniques was originally given by the veterinary medical librarian as a stand-alone presentation;

feedback from students indicated that they did not find this information relevant. This presentation was then moved to directly follow a presentation on the basics of evidence-based medicine to provide better context and flow. An emphasis was placed on skills in using PubMed because this search engine would continue to be free to students after their affiliation with the university ended. In addition to becoming more effective at finding articles to answer clinical questions, students participate in small-group journal club sessions led by clinical faculty and house officers and learn to critique the primary literature in both written and oral formats.

#### **SEMESTER 5: PRACTICE MANAGEMENT**

The final semester covers the basics of business management and veterinary law. Outside speakers provide students with personal information about creation of a résumé and cover letter and tips about interviewing for jobs and negotiating employment contracts. The basics of business management are also reviewed, as are basics of veterinary law. Students with a greater interest in business management may enroll in a program, Applied Business in Managing the Professional Practice, offered through the University of Minnesota College of Continuing Education. Students complete five online courses with coursework in leadership, communications, marketing, cost accounting, and human resources.

#### **ASSESSMENT**

Re-occurring assessments at the end of each course are carried out to identify areas for improvement and to capture the students' sense of value in this coursework. The task force meets quarterly to review student evaluations of instructors and courses. Individual course coordinators share ideas for possible changes for group discussion. Within courses, small-group facilitators meet regularly to brainstorm about problems as they arise and to ensure consistency of presentation of course material.

One problem with teaching this set of non-technical skills is the lack of a ready means to assess students' competence. Ongoing projects that will help us determine whether we have made a difference include

- *Assessment of fourth-year students on clinical rotations:* Students on the General Practice service will be videotaped, with client permission, performing one wellness examination and one examination of an animal presented for illness, based on information that communication style differs between these two scenarios.<sup>22</sup> Videotapes will be critiqued with the students for their learning and will be evaluated using a scale based on the Calgary-Cambridge guide<sup>23</sup> to compare students from one year to the next. A validated client satisfaction instrument will also be compared for students from one year to the next.
- *Learning styles vary with experience:* Novices evaluate problems with a more sequential approach and experts with a more global view. First-year students take an online survey of learning styles. The objectives of this exercise are to make them

aware of their own learning style and how that might affect their teaching style as they work with clients and colleagues and to permit tracking of changes in their learning styles as they move through the curriculum, to see whether students achieve the mindset of experts within the veterinary curriculum.

- *Surveys of students beginning the clinical year of training and of graduates one, three, and five years into employment:* These surveys will be evaluated for self-assessment of competence in professional skills and evidence of job satisfaction resulting from enhanced professional development training. Similarly, focus groups of practitioners employing our graduates will be evaluated for this information.

## RECOMMENDATIONS

Faculty may be less comfortable taking on the role of facilitator rather than lecturer.<sup>24</sup> Specific types of teacher discomfort include cognitive discomfort (uncertainty over content knowledge), beliefs-driven discomfort (differing beliefs about what should be taught and best practices), and emotional discomfort (concern about vulnerability because the teacher is no longer the expert throughout the situation).<sup>25</sup> Recognition of these types of discomfort and acceptance of them as a normal response to this change in instruction is vital to success. Some are easily managed; for example, small-group facilitators regularly meet to ensure all are comfortable with the content presented and the activities used in small-group sessions to minimize cognitive discomfort. Others take much discussion, ensuring the group comes to some common beliefs and expectations to ensure consistency in the course. Emotional discomfort is usually overcome with experience. Student and instructor apprehension is good and, within reason, enhances the learning experience.

Creation and maintenance of a series of courses of this type requires buy-in from administration and commitment from the faculty involved. Highly functioning teams are reported to be those that exhibit trust, ability to embrace conflict constructively, commitment, accountability, and attention to results.<sup>26</sup> This task force has exhibited all of those characteristics, with all individuals recognizing their input as valuable and all course coordinators readily sharing their plans, student evaluations, and changes for improvement with the entire group.

Finally, any concerted effort in professional development training requires faculty development for appropriate modeling of behaviors by faculty for the students and for faculty knowledge of expected skills for students and appropriate feedback.<sup>27</sup> Several members of the Professional Development Task Force will be providing faculty with communications training in the near future and are developing similar training for interns and residents. Moving forward, the University of Minnesota is acknowledging the importance of an interprofessional approach to health science education by offering a one-credit course across all seven academic health center schools starting in fall 2010. This course will offer in-person and online components covering professionalism, ethics, communication, and the interdependence of related fields.

## ACKNOWLEDGMENTS

The authors thank members of the Professional Development Task Force: Robert Morrison, Christina Clarkson, Kelly Hall, Julie Churchill, Roberto Novo, Micky Trent, Alvin Beitz, Timothy Goldsmith, Gary Goldstein, Maria Killos, Jeannine Moga, Laura Molgaard, Thomas Molitor, Edward Patterson, Jane Ponder, Michelle Ritt, and Robert Washabau.

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Please note that this is a final corrected version of Root Kustritz M, Nault A. Professional Development Training through the Veterinary Curriculum at the University of Minnesota. *J Vet Med Educ.* 2010;37(3):233-7. doi:10.3138/jvme.37.3.233, originally published online on September 19, 2010. The DOI and publication date remain the same. This article is being re-published to correct a manuscript processing error that is wholly the responsibility of JVME.