

# Competence of Veterinary Graduates, Who is Responsible?

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I have had the opportunity recently to stand back, look at and think about veterinary education from a different perspective than when I was "in the trenches". Very few faculty have that opportunity and therefore I would like to present to you some observations on the subject for your consideration.

Various bodies are responsible for the education and competence of veterinarians at various times. However, there is a lack of perspective and continuity regarding this responsibility, particularly as perceived by the student-cum-graduate. This lack of perspective and continuity and the long term effects of it are a serious impediment to competence of graduates. This is the major point I wish to address.

One could argue that the primary responsibility rests in four possible locations; first, with the admission procedures and criteria; secondly, with the veterinary colleges and perhaps the accreditation system; thirdly, with the veterinary associations responsible for membership and licensure and in some cases, examination; and fourthly, with the public through government or regulatory agencies. On the other hand, one could argue that the individual student-cum-graduate is responsible as an applicant-cum-student-cum-graduate. He or she (from here on "he" will refer to he or she), could argue that all courses were passed, a degree and a license to practice or membership in a veterinary association were obtained and therefore he is competent and will remain so. Even if this were true, for how long is the new graduate competent?

I would like to suggest that the individual is responsible and must be held to be responsible for being competent

and maintaining competence through a career as a student and later as a graduate. If this responsibility is not accepted genuinely, no amount of required, regulated or forced continuing education will ensure competence. The attitude to want to maintain competence and to know how to go about doing so must be present.

Having said that, I would add that most students and graduates are not prepared by their previous experience to accept that responsibility and what is more, may not recognize it as their responsibility. The problem is that in many instances the admissions process, the educational processes of undergraduate study and continuing education, do not prepare the graduate for accepting the responsibility for self competence.

Starting at the admissions process, the applicant is generally not required to know very much about the veterinary profession, what it is, why it is, the services it provides to the public and the economy, and need not have had much, or in some cases, any experience with the profession. In fact, there is generally no formal requirement for further knowledge about the profession and its public responsibilities, except for that acquired during formal classes. The student often does not perceive such knowledge to be important, particularly because neither the faculty nor the veterinary associations place a priority on explaining these aspects to the student.

It is very difficult to place specific responsibility for a student's competence on anyone at one of the veterinary colleges. The system of large classes, many tests, many small hurdles (and getting smaller), many instructors (many of whom never get

to know the abilities of individual students), short answer examinations and multiple instructors per course, often mitigate against any one person taking responsibility for even one course. Faculty members do not feel personally responsible for individual students in many situations; the student doesn't know who he needs to be responsible to and he loses sight of where he is or where he is going. Only the next hurdle matters. Therefore, he only learns "what he has to know" and considers others, not himself responsible for "what he has to know". Students seem to be able to convey the impression to faculty that "I don't have to know about this disease because you didn't tell me the facts in class or in notes". Therefore it is assumed that the problem is the faculty members', not the students'.

To add to this problem, the lack of integration and coordination from year to year, and course to course, does not create longterm or farsighted vision for the student. Therefore, he loses sight of why he is learning the material provided to him daily. If he understood why and had a clear view of the trail ahead, the process might become more meaningful and he would begin to assume responsibility. The process becomes a feat of memory, not synthesis and understanding with the only objective being passage of the small hurdles.

Many of these comments apply to the early years of the curriculum and may improve somewhat in later years, but by then attitudes toward learning and responsibility are set. It is too late. The attitudinal deficiency may be permanent.

A further problem occurs when the student learns to survive or even excel

on facts not on synthesis, evaluation, integration and problem solving, all of which lead to a solid foundation, confidence and pride. The emphasis on facts is becoming rapidly redundant because of the so-called information explosion. David Suzuki recently stated that human knowledge is now doubling every seven or eight years (1). Students and faculty must realize that such changes in scale are happening and change the emphasis of the educational process. Failure to do so will be an abdication of responsibility by the veterinary colleges.

The future emphasis must be on how to learn, what is important, and how to keep up with the information explosion and not be demoralized by it, both in college and later as a graduate. The educational process must become more meaningful and based on continual learning, not just until graduation. The relevance of the whole continuing educational process is at stake. A new emphasis must place the responsibility for competence on the individual as an applicant, student and more important as a graduate. It is time to make the change, not just talk about it.

A recent publication (2) made the following points regarding competence in the medical profession:

- 1) The systems necessary to deliver continuing medical education to physicians in an efficient and effective manner do not exist,
- 2) The legal remedies proposed to meet the malpractice crises were not effective and adequate approaches did not exist,
- 3) The issue of establishing physician competence has not been faced squarely,
- 4) Current efforts to ensure competence through requiring a fixed number of hours of continuing education are unlikely to succeed.

A new journal dedicated to Continuing Education in Health Sciences (4) describes the art and science of continuing medical education as being in their infancy and just entering the earliest phases of study. Evaluation of continuing education is poorly developed and requires much research to determine if current systems are effective and actually contribute to improved performance by those taking continuing education.

To a large extent, continuing medical education is self directed by the learner whose responsibility it is to maintain professional competence and to learn whatever it is he needs to know. This may be perceived by either the learner or by others. It is influenced by the level of training and sophistication of the learner, the practice situation and individual learning styles (4).

A recent graduate in the health professions is likely to stay current for perhaps five years at the most, unless specific measures are taken to continue to learn and to keep up with progress and change.

It is time to deal seriously with questions of competence. We are still early in the process of implementation and evaluation of continuing education mechanisms. We must evaluate undergraduate education and competence as a part of the entire educational process including continuing education. As stated earlier, the two must be a continuum and perceived in a positive manner as a continuum by the learner and the public. The whole process must be effective and be seen to be effective. A recent book (5) states that "much of every professional's attitude toward future learning and the ability to undertake it has been established by the time of entry into the service". Therefore the changes must start at admission and in college.

The universities and the professional associations must participate together to bridge the gap between student life and graduate life. There are several avenues to explore toward a better method of making these educational processes more meaningful and effective. I will list ten:

1. Work from the premise that the student and the graduate is responsible for what he knows and is able to do.
2. Define realistic behavioral objectives for the undergraduate and graduate in terms of what he is required to know and be able to do. Relate these to veterinary medicine and start doing so on day one at college. Allow these to guide the educational process.
3. Include problem solving exercises which require self learning at all stages of the curriculum to create an approach to problem solving

which will last for a lifetime and establish these activities as a significant component of student evaluation and self evaluation.

4. Regularly emphasize self learning and evaluate it. Consider a system of "student effort hours" with assignments, rather than only student contact hours in the classroom. This emphasizes self learning and dispels the notion that all that needs to be known will be provided in class by the instructor.
5. Require the student to use books and journals and evaluate how they are used. There is an increasing tendency to replace the use of books and journals with handouts or lectures and this practice conveys the idea that it is not necessary to use books and journals. This is a very serious problem now and will increase unless action is taken to alter the practice. It mitigates against the continuing education process.
6. Evaluate the learning efficiency of students and provide assistance for slow readers, or poor organizers, or poorly motivated students. Study and learning habits are often found to be highly inefficient, even in students with several years of university courses. Such assistance requires professional help and can contribute greatly to learning ability and an appreciation for learning not just as students, but later when it is actually more important.
7. Avoid isolation of parts of the curriculum from each other physically and functionally in order to improve integration of the learning process. Integration by juxtaposition of disciplines, rather than integration by body system courses, is likely to be more efficient, economical and rewarding for both students and faculty and also improve the evaluation process. Coordination within related subjects is possible and effective in some circumstances, a notable example being a combined physiology, pharmacology and surgical exercise laboratory. Imagine the beneficial integration of knowledge in such a course! There should be more examples in functional and physical juxtaposition

of such areas as the anatomy laboratory and postmortem laboratory which would allow much greater benefit for students from both. Coordination between anatomy and radiology, histology and pathology, surgery and anatomy, medicine physiology and pharmacology are examples of areas for improving the learning process. Flexibility in the bureaucracy within colleges is also required to allow for an improved educational process.

8. Devise systems to monitor over-teaching and underteaching and to make changes as appropriate. Manage the curriculum.
9. Insist on meaningful evaluation of students, courses and faculty.
10. Shift the responsibility for learning from the faculty to the student in all the above endeavors. Only in this manner will the graduate accept the responsibility for continuing education after graduation.

The professional veterinary association responsible for licensure performs three functions: first, it provides registration; second, certification and third, a mechanism whereby actions of practitioners can be monitored and the privileges of practice revoked if performance standards are not met. The associations do not seem to perform a similar function regarding competence for nonpractice areas of the profession which includes close to fifty percent of the profession. This omission is a serious neglect of responsibility by the associations. Competence is required in the nonpractice areas as well and my comments apply to all fields of the profession.

A recent article from the American Veterinary Medical Association (AVMA) touches on competence but again from the standpoint of private practice:

"Certification of knowledge and ability may be equated with possession

of the veterinary medical degree but in its traditional form certification does not provide a mechanism for anything other than indicating a certain level of competency at a certain point in time. Licensure incorporates the elements of registration and certification plus it provides a mechanism whereby the actions of the practitioner can be monitored and the privilege of practice revoked if the practitioner fails to meet performance standards. While the three control mechanisms are frequently confused and the terminology less than adequate, licensure is the highest level of control and is used only where the needs to protect societal interest are greatest. It is in this context that certification (obtaining a degree) has been judged to be inadequate in regulating the practice of veterinary medicine.

A basic problem with equating graduation from an accredited school with competency to enter practice is that curricula vary from school to school and not all have the production of a practitioner as their principal goal. The diploma signifies successful completion of a set of individual courses but does not necessarily establish the ability to practice veterinary medicine. The AVMA accreditation process is used to assure the presence of an adequate educational program but it makes no effort to measure the quality of the graduates of such programs. At the present time, very few veterinary colleges use comprehensive examinations as a prerequisite for graduation. Thus the state board examination is the only comprehensive examination ever taken by most veterinarians seeking to enter private practice (2)".

In Canada the provincial veterinary associations are technically responsible for licensure and therefore competence and continuing education. How are they going to ensure the public of competence for *all* veterinarians as the information explosion intensifies?

Should there be a national policy? Is there a plan? Who will be responsible for continuing education for those veterinarians in both practice and nonpractice functions? The competence of those in nonpractice functions is as important to the country as the competence of those in private practice.

Most of my comments relate to undergraduate education and emphasize the necessity of instilling a positive attitude toward life long learning. The process has to start there and can improve if there is the will to do so and the recognition of the significance of the process among the students, faculty and veterinary associations. If the colleges improve their product regarding learning attitudes and responsibility as suggested above, the associations will have a firmer base on which to build a solid base for continuing education with a view to serving *all* veterinarians in their quest to maintain competence. However, the motivation must come from within each individual. The primary responsibility lies there. It is part of becoming a professional person. The process must start at admission, and be nurtured through college and into the service of the profession to the public.

#### REFERENCES

1. SUZUKI, D. Challenge for the 80's. Keynote address to the Atlantic Provinces Inter-University Committee on the Sciences, Science Education Conference. Sackville: New Brunswick. 1980.
2. HOOPER, B.E. The Veterinary Medical National Board examination and professional licensure for practice. *J. Am. vet. med. Ass.* 177: 1092-1096. 1980.
3. U.S. Department of Health, Education and Welfare. Competence in the Medical Professions: A strategy. DHEW Publication No. (HRA) 77-35. 1977.
4. MÖBIUS. A journal for continuing education for professionals in health sciences. Volume 1. San Francisco: University of California, 1981.
5. HOULE, C.O. Continuing Learning in the Professions. San Francisco: Jossey-Bass Publishers. 1980.