

# “Concepts in Animal Welfare”: A Syllabus in Animal Welfare Science and Ethics for Veterinary Schools

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### ABSTRACT

Public attitudes toward animal welfare have improved with growing social affluence, and veterinarians are increasingly expected to be informed about animal welfare in a broader sense than health alone. However, animal welfare has not been a traditional component of the veterinary curriculum. To help address this lack, the World Society for the Protection of Animals (WSPA) and the University of Bristol School of Veterinary Science launched the “Concepts in Animal Welfare” syllabus in 2003. This comprehensive syllabus comprises seven core and 23 elective modules and covers a range of animal welfare issues, including farm and companion animal welfare, wildlife, and the use of animals in experiments. There are also modules on ethics and animal legislation. The syllabus is interactive, promotes critical analysis of issues from different angles, and may be adapted for use in any veterinary curriculum. WSPA provides training and workshops in developing countries and assists with the implementation of the syllabus.

### INTRODUCTION

Over the past 200 years, and particularly since World War II, public concern over the plight of animals has steadily grown. As a result, the number of animals used in experimentation is declining in some countries, and companion animals are treated better than they once were. However, there is also increased human consumption of animal products. Today these products are largely derived from intensive farming systems, in which very large numbers of animals are kept in conditions that increasing numbers of scientists and lay people consider unacceptable on animal welfare grounds. The veterinary profession is privileged to occupy a position of enormous social influence on animal welfare issues. However, the profession has traditionally understood welfare primarily within the limited scope of animal health and productivity, and the curriculum has reflected this limited understanding.

### ANIMAL WELFARE TRENDS IN VETERINARY EDUCATION

The veterinary profession has its origins in agricultural practice,<sup>1</sup> although in most areas of the developed world today most veterinarians work primarily with companion animals. Veterinary medical curricula have been modified accordingly and also include an increased emphasis on biomedical research. Accompanying these changes is the marked feminization of a previously male-dominated profession.<sup>2,3</sup> This gender shift is bringing some changes in the attitudes of veterinary students toward animal welfare. For example, a cross-sectional study of veterinary students in their first pre-clinical year, first clinical year, and final year of study showed that the women in each of these groups rated themselves as having significantly higher levels of emotional empathy with animals than did the men.<sup>3</sup> This difference was most marked in the final-year students; moreover, the male students in that group showed lower levels of empathy than their peers in the earlier-year groups.<sup>3</sup> Research at a US veterinary school has examined

veterinary students' attitudes to pain management.<sup>4</sup> Fourth-year students were less likely than second- or third-year students to provide analgesia for certain surgeries. Moreover, it appears likely that inhibition of the normal development of moral reasoning ability takes place during the four years of veterinary school.<sup>5</sup>

These findings may be attributable in part to the attitudes of teaching faculty and the example they set.<sup>4</sup> The apparent reduction in concern for animal welfare may also, in some cases, represent psychological adaptations that enable veterinary students to withstand what could otherwise be intolerable psychological stresses resulting from curricular requirements to harm sentient creatures in the absence of overwhelming necessity.<sup>6</sup> While many veterinary schools are continuing to refine their curricula to avoid harmful animal use, such use may still be found in veterinary education worldwide, both in pre-clinical and in clinical (surgical) training. Humane alternatives to such animal use in veterinary education are reviewed elsewhere in this issue.<sup>7-9</sup>

Where harmful animal use is retained in the curriculum and animal welfare education is lacking, it is likely that graduating veterinarians will have a diminished appreciation of animal sentience and a diminished understanding of animal welfare science and animal welfare issues. These in turn will impede the veterinarians' ability to guide their clients and the wider public appropriately in questions of animal use. Education about animal welfare science and issues is underdeveloped in most veterinary schools and, we believe, has not received the attention it deserves in the curriculum. However, increasing numbers of courses on animal welfare are being implemented around the world, particularly in developed countries. Some of these courses are integrated into undergraduate veterinary education, as illustrated in this issue.<sup>10-14</sup> In addition, there are post-graduate courses such as the MSc in Applied Animal Behaviour and Animal Welfare at the University of

Edinburgh<sup>15</sup> and the MSc in Animals and Public Policy at the Cummings School of Veterinary Medicine at Tufts University.<sup>16</sup> To encourage the introduction of animal welfare education into veterinary curricula worldwide, the World Society for the Protection of Animals (WSPA) developed an outline of the “Concepts in Animal Welfare” syllabus in 2000 and launched the complete syllabus on CD-ROM in 2003.<sup>17</sup>

### THE “CONCEPTS IN ANIMAL WELFARE” SYLLABUS

The syllabus was developed in collaboration with the University of Bristol School of Veterinary Science. The aims of the CD-ROM are to help students:

- to develop an understanding of animal welfare relevant to an animal’s physiological and psychological well-being;
- to recognize the welfare, ethical, and legal implications of animal use practices and to be able to apply critical analyses from each perspective, for different species, in different situations; and
- to stimulate focused critical thinking on welfare issues, which can be developed throughout the course and the individual’s professional career.

The syllabus consists of seven core and 23 elective teaching modules covering a wide range of animal welfare topics (see Table 1). Teaching units are provided in PowerPoint format, and the topics (see Table 1) are illustrated with practical examples and case studies. In addition, there are questions and assessment materials, suggested reading lists, and additional relevant materials. The materials are suitable for use in class as well as for independent study, and they also stimulate interaction between students and with the lecturer. Lecturers can easily adapt the materials to suit their individual needs by adding relevant local information or by omitting modules for which there is insufficient time. The CD-ROM can be used at both undergraduate and post-graduate levels and is suitable for use on its own or for integration into existing courses on behavior, physiology, ethics, or veterinary law. Navigation of the CD-ROM is easy, and the presentation of the material is engaging. The modules build on the experiences of both the University of Bristol, one of the world’s leading centers for the study of animal welfare science, and WSPA, which has 50 years of international experience in advancing animal welfare issues, including collaboration with governments, international organizations, and veterinary professional associations.

To facilitate the implementation of the syllabus, since 2004 WSPA has organized a series of conferences and workshops for veterinary faculties in Brazil, the Czech Republic and other Eastern European countries, India, Indonesia, and the Philippines. As a result of the workshop in the Philippines in March 2005, a steering committee was formed that is currently reviewing the Philippine national veterinary curriculum to include more animal welfare content in existing modules on husbandry and breeding. Further conferences and workshops are planned for 2006 in Africa, South America, Japan, and Portugal. In Colombia, animal welfare will form a compulsory part of the curriculum beginning in 2006. We do not yet have a complete overview

**Table 1: Modules of the “Concepts in Animal Welfare” syllabus**

Module number	Topic	Core module?
1	Animal welfare introduction	Yes
2	Welfare assessment and the Five Freedoms	Yes
3	Physiological indicators of welfare (1)	No
4	Physiological indicators of welfare (2)	No
5	Immune and production indicators of welfare	No
6	Behavioral indicators (1)	No
7	Behavioral indicators (2)	No
8	Group assessment and management of welfare	No
9	Human-animal interactions	Yes
10	Introduction to animal welfare ethics	Yes
11	Interaction with other ethical concerns	No
12	The role of the veterinary profession and individual veterinarian	Yes
13	Humane education	No
14	Animal welfare organizations	No
15	Protection legislation (1)	Yes
16	Protection legislation (2)—Enforcement and political pressure	Yes
17	Commercial exploitation of wildlife	No
18	Influence of the marketplace	No
19	Farm animal welfare assessment and issues (1)	No
20	Farm animal welfare assessment and issues (2)	No
21	Farm animal transport and markets	No
22	Slaughter of farm animals	No
23	Working animals	No
24	Animals used in entertainment	No
25	Animals in experiments	No
26	Companion animals (1)—Population control programs	No
27	Companion animals (2)—Wider considerations	No
28	Euthanasia	No
29	Wild animal management	No
30	a) Religion and animals	No
	b) War and natural disasters	No

of which universities have implemented all or parts of the syllabus, but we know of many universities in Australia, Brazil, Canada, Colombia, many European countries, India, Indonesia, Kenya, New Zealand, the Philippines, South Africa, and the United States that are successfully using the resource. An extensive assessment form for users has been developed to help WSPA improve the syllabus even further.

## CONCLUSION

Progressive positions on questions of animal use go hand in hand with humane attitudes and a profound knowledge of animal welfare science. Although that discipline is well established, with an ever-expanding body of related research, most veterinarians will remain relatively ignorant of animal welfare science and issues unless they learn about them during their formal education. We hope that the "Concepts in Animal Welfare" syllabus will play an important role in helping veterinarians to develop a sound understanding of this increasingly important field. The syllabus is designed to achieve this goal by stimulating students to undertake focused critical thinking on welfare issues, not only during their veterinary course but throughout their entire career.

## REFERENCES

- 1 Pritchard WR. A changing world and a changing profession challenge veterinary medical education. *J Vet Med Educ* 21:119, 1994.
- 2 Kogan LR, McConnell SL, Schoenfeld-Tacher R. Response of a veterinary college to career development needs identified in the KPMG LLP study and the executive summary of the Brakke study: A combined MBA/DVM program, business certificate program, and curricular modifications. *J Am Vet Med Assoc* 226:1798, 2005.
- 3 Paul E, Podberscek A. Veterinary education and students' attitudes towards animal welfare. *Vet Rec* 146:269–272, 2000.
- 4 Hellyer P, Frederick C, Lacy M, Salman MD, Wagner AE. Attitudes of veterinary medical students, house officers, clinical faculty, and staff toward pain management in animals. *J Am Vet Med Assoc* 214:238–244, 1999.
- 5 Self D, Schrader D, Baldwin S, Root S, Wolinsky F, Shaddock J. Study of the influence of veterinary medical education on the moral development of veterinary students. *J Am Vet Med Assoc* 198:782–787, 1991.
- 6 Capaldo T. The psychological effects on students of using animals in ways that they see as ethically, morally or religiously wrong. *Altern Lab Anim* 32(Suppl 1b):525–531, 2004.
- 7 Martinsen S, Jukes N. Toward a humane veterinary education. *J Vet Med Educ* 32:454–460, 2005 (current issue).
- 8 Hart L, Wood MW, Weng H-Y. Mainstreaming alternatives in veterinary medical education: resource development and curricular reform. *J Vet Med Educ* 32:473–480, 2005 (current issue).
- 9 Wood MW, Hart LA, Weng H-Y. Effective bibliographic searching for animal alternatives in veterinary medical education. *J Vet Med Educ* 32:468–472, 2005 (current issue).
- 10 Hewson CJ, Baranyiová E, Broom DM, Cockram MS, Galindo F, Hanlon AJ, Hänninen L, Lexer D, Mellor DJ, Molento CFM, Ödberg FO, Serpell JA, Sisto AM, Stafford KJ, Stookey JM, Waldau P. Approaches to teaching animal welfare at 13 veterinary schools worldwide. *J Vet Med Educ* 32:422–437, 2005 (current issue).
- 11 McGreevy PD, Dixon RJ. Teaching animal welfare at the University of Sydney's Faculty of Veterinary Science. *J Vet Med Educ* 32:442–446, 2005 (current issue).
- 12 Millman ST, Adams CL, Turner PV. Animal welfare training at the Ontario Veterinary College. *J Vet Med Educ* 32:447–450, 2005 (current issue).
- 13 Siegford JM, Bernardo TM, Malinowski RP, Laughlin K, Zanella A. Integrating animal welfare into veterinary education using an online interactive course. *J Vet Med Educ* 32:497–504, 2005 (current issue).
- 14 Main DCJ. Teaching animal welfare science, ethics, and law to veterinary students in the United Kingdom. *J Vet Med Educ* 32:505–508, 2005 (current issue).
- 15 University of Edinburgh. Degree regulations & Programmes of Study 2004 <<http://www.cpa.ed.ac.uk/drps/E/DP/30.html>>. Accessed 09/12/05. University of Edinburgh, Edinburgh, UK, 2004.
- 16 Cummings Veterinary School, Tufts University. Center for Animals and Public Policy <<http://www.tufts.edu/vet/cfa/msap.html>>. Accessed 09/12/05. Tufts University, North Grafton, MA, 2005.
- 17 World Society for the Protection of Animals. *Concepts in Animal Welfare: A syllabus to assist with the teaching of animal welfare in veterinary faculties* <<http://www.wspa-international.org/site/index.php?page=1469>>. Accessed 09/12/05. World Society for the Protection of Animals (WSPA), London, 2003.

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