

Animal Welfare Education in Latin America

C. Gallo (1), T. Tadich (1), S. Huertas (2), D. César (2), M. Paranhos Da Costa (3), D.M. Broom (4)

(1) OIE Collaborating Centre for Animal Welfare Research Chile-Uruguay, Facultad de Ciencias Veterinarias, Universidad Austral de CHILE

(2) OIE Collaborating Centre for Animal Welfare Research Chile-Uruguay, Facultad de Veterinaria de la Universidad de la República del URUGUAY

(3) Grupo ETCO, Departamento de Zootecnia, Faculdade de Ciências Agrárias e Veterinárias, Universidade Estadual Paulista (UNESP), Jaboticabal-SP, BRAZIL

(4) Centre for Animal Welfare and Anthrozoology, Department of Veterinary Medicine, University of Cambridge, Madingley Road, Cambridge CB3 0ES U.K.

Summary

In Latin America, animal welfare is an emerging topic that has rapidly gained interest during the 2000's, mainly because of its impact on animal health, product quality, international trade and also consumer perception. Animal welfare related education must be provided at different levels, from programmes specially developed for children at primary schools and training of animal handlers or others responsible for farm animals, to the university level where it should be provided at undergraduate as well as postgraduate level, including scientific research. The range of people involved, in terms of age and educational and cultural backgrounds, is so wide that different teaching strategies must be adopted. This paper explains various strategies that are being used in Latin America to deliver animal welfare education for children at primary schools, to train farmers, transporters and other animal handlers within the food producing chain.

Key words: animal welfare, education, production animals, strategies, Latin America

Introduction

Animal welfare as a scientific discipline has its origins in studies of motivation, stress and veterinary science that were developed between the 1960s and 1980s (Broom, 2010 a). In Latin America, animal welfare is

an emerging topic that has rapidly gained interest during the 2000's, mainly because of its impact on animal health, product quality, international trade and also consumer perception (Tadich et al, 2010).

Because of the knowledge involved in animal welfare science, it is a topic that directly concerns the veterinary profession as well as other animal science and biology related lines of work. In order to create sustainable animal production systems, make a good use of resources, ensure good human health, develop pertinent legislation and generate social, cultural and environment responsibility, it is necessary to develop education about animal needs and animal welfare at all levels (Broom, 2010 a; Paranhos da Costa, 2010).

In 2006, a survey was carried out as a technical item to be presented to the Regional Commission of the OIE for the Americas in order to determine at what levels animal welfare education had been carried out so far (Gallo, 2006). From 22 countries that replied to the questionnaire, 15 stated that they had provided training courses for their veterinary services personnel and the same number of countries had courses on animal welfare in veterinary faculties and other educational institutions. Eight countries had provided training for their producers, 7 for private veterinarians, 7 for agri-food industry personnel and only 2 for consumers.

Animal welfare related education must be provided at different levels, ranging from programmes especially developed for children at primary schools and the training of animal handlers, or others responsible for farm animals, to the university level where it should be provided at undergraduate as well as postgraduate level, including scientific research. In the case of Latin America in particular, the number of people involved in handling or working with animals is high, because of the existence of large numbers of smallholder farms. Their educational level is in general low so many of these people may not be able to read or understand some information available on how to improve animal welfare. The range of people involved, in terms of age and educational and cultural backgrounds, is so wide that different teaching strategies must be adopted.

This paper concerns the state of art of animal welfare education in Latin America, especially considering the presentations and outcomes of the Workshop "Educational strategies to promote animal welfare concepts and practices", held in June 2010 at Jaboticabal, Brazil (www.grupoetco.org.br). The aim of this workshop was to present the existing educational strategies to promote animal welfare concepts and practices in Latin America and discuss relevant issues for new developments.

Animal Welfare Education at Primary School Level

At the primary school level, animal welfare education probably will be more related to increasing awareness about responsible care of pets and environmental education. For example, in 2007 Uruguay carried out a project for training rural teachers in animal disease and animal welfare issues; the aim of the project was to develop awareness of zoonoses, production diseases and animal welfare in children at primary school level. The project was implemented by several institutions led by the Ministry of Agriculture, Livestock and Fisheries with the support of the Veterinary Medical Association, the National Veterinary Academy, the Veterinary Faculty and the Plan Agropecuario Institute. They were able to train 1,461 teachers and 1,083 rural primary schools. The Ceibal Plan, an initiative from the Uruguayan government, has been of great help for training programmes since, through this plan, each teacher and each student in the Uruguayan public school system has a laptop computer with access to internet (César, 2010).

In the case of Chile similar strategies have been applied, on one hand the World Society for the Protection of Animal's (WSPA) International Animal Welfare Education Programme aimed at teachers of children between 5-16 years, has been implemented in a couple of cities with the collaboration of the Chilean Ministry of Education since 2006. The same WSPA programme has been run in Costa Rica for over 18 years and more recently in Peru. Smaller projects have also been implemented in some Veterinary Schools, this is the case of the environmental education project at the Universidad Austral de Chile, this project is carried out by students from the Veterinary Faculty in Valdivia, under the coordination of a Veterinarian; they work with children from public schools creating awareness of the wild life present in the region and the impact that humans can have on them, other projects from the same Veterinary School are focused on responsible tenancy of pets. These kinds of projects not only educate children, but also increase social responsibility in veterinary students.

Animal Welfare Training for Producers and Animal Handlers

The lack of knowledge and suitable training opportunities of the people that work on a day to day basis with animals constitutes the primary problem that affects farm animal welfare. The strategies used should include the generation of skills, how to do things, originate models that promote humanitarian treatment of animals and apply quality controls (Ghezzi, 2010).

In the past 5 to 10 years, in several Latin American countries, awareness of animal welfare has been raised among stakeholders involved in the animal food chain, such as producers, farmers, animal handlers on farms, livestock markets and slaughterhouses, professionals, and livestock truck drivers among others. In this case information about good veterinary and management practices has been transmitted through courses and seminars. In order to gain attention among stakeholders and animal handlers, the strategy to promote animal welfare has been showing how the bad handling of meat animals on farm, during transportation and at slaughterhouses, produces economical losses, by increasing animal deaths, carcass weight losses, trimmings due to injections and bruising, and by negatively affecting meat quality (high muscle pH, dark cutting). In addition to theory, the courses usually include practical demonstrations of animal handling at local facilities and visual appraisal of the damages on the carcasses (Gallo, 2009; Huertas, 2010; Huertas et al, 2010; Paranhos da Costa, 2010). A similar strategy is being used in the case of the dairy chain. Surveys in Chile have shown the importance of understanding the needs of the dairy cows and the ways in which these needs can be satisfied, for instance by properly designing and constructing buildings and equipment, and minimizing pain in lame cows (Arraño et al 2007, Tadich 2010) Training farm workers involved in the milk production industry can also greatly improve the welfare of animals, increase milk yields, decrease calf mortality and even increase the status of job satisfaction of workers (Paranhos da Costa, 2010)

On the other hand training workshops for abattoir personnel have been used in intervention studies and their effectiveness has been assessed after the training, using animal behaviour and meat quality measures in slaughterplants (Gallo et al, 2003). The Welfare Quality® project in Chile, Brazil and Uruguay has also been useful in assessing animal welfare through the use of their protocols in Latin America although some modifications are needed due to differences in production systems, in the creation of links between different research institutions, and it has the potential to be used as a basis for educational actions in the future (Huertas et al, 2010; Manteca & Köbrich, 2010). Resources for improving animal handling skills of slaughterhouse staff have also been made available by WSPA in Brazil (Lüdcke, 2010); courses have been attended by people in many slaughterhouses and videos have been produced, that focus on the training of technical and practical details about stunning methods and equipment, to be used in cattle, pigs and poultry.

All of the above mentioned training is related to animals that produce food for human consumption, mainly ruminants, pigs and poultry; but in the case of animals such as equines, which are mainly

used for food and work, but are also considered as companion animals for pleasure or sports, the situation is completely different. For example in the case of Chile a study showed that less than 50% of the personnel in charge of horses had training of some kind in equine handling and less than 10% in animal welfare (Márquez et al, in press).

Methods of educating people involved in other aspects of animal handling are also being put into practice in Brazil. Control officers are being trained to catch, handle and keep stray dogs and cats, using techniques both to minimize the adverse effects of stray dogs and cats, and to minimize adverse effects on the welfare of these animals (García & Plaza Nunes, 2010).

Generally speaking, an aspect that has encouraged the training of stakeholders in the food chain from a governmental level in Argentina, Chile, Brazil and Uruguay has been the fact that the adoption of animal welfare practices facilitates trade agreements. In the case of Chile the free trade agreement with the European Union has been a key element in improving the welfare of beef cattle. This is probably the reason why most of the training has occurred at one or more levels of the food producing chain. At farm level, adoption of “good management practices” and “animal farms under official control” (PABCO-Chile) certifications, which include some animal welfare aspects, are strategies provided by the National Agricultural Service (SAG) (Gonzalez et al, 2004). It is important to communicate information about AW to all veterinarians, especially those working for the government, and also to the owners of farms, workers in all aspects of animal production and, at some level, to the general public. Similar educational activities as well as the existence of governmental “Animal Welfare Commissions” were reported for several other Latin American countries during the workshop held in Jaboticabal, Brazil (Argentina, Brazil, Cuba, Uruguay).

On the other hand, the OIE is also encouraging its member countries to put into practice the animal welfare standards (OIE, 2009); therefore an Animal Welfare Focal Person has been appointed in each member country who should promote AW locally. However, in the case of Latin America the AW Focal Person is generally a member of the official veterinary services in each country, without specific knowledge in AW and they need to be trained in AW before he/she can start promoting the topic in the country; hence through the OIE, workshops with experts are being organized in different countries in order to train Focal Persons for this new duty.

Animal Welfare Education at the Undergraduate and Postgraduate Level

In relation to the inclusion of animal welfare topics at university level in Veterinary Faculties or other higher educational institutions, countries such as Brazil, Colombia, Costa Rica, Honduras, Peru, Chile and Argentina have specific courses on the subject while other countries include the topic as a part of other courses (Gallo, 2006). In fact one of the recommendations as a result of the 18th Conference of the Regional Commission of the OIE for the Americas was to stimulate the creation of animal welfare related courses, in order to improve knowledge of the subject not only of students but also among professionals, and that these courses should include the teaching of the OIE animal welfare standards (OIE, 2006).

Training academic staff in animal welfare is essential to design a course that satisfies student requirements by stimulating them to become more knowledgeable on the subject, applying concepts learned at the university to their professional practice, or developing research in these areas. Tadich et al (2009) state that one limitation of the teaching of AW in Chile is the lack of instructors with adequate training. It can be said that it is also a limitation in most Latin American countries and it is, in part, a consequence of the absence of AW in courses when the teachers of the courses were themselves students. Courses on animal nutrition and animal genetics, for example, seldom make any reference to behaviour or welfare despite the obvious overlap between the subject areas and the importance of one for the other (workshop report 2010). As has been said before, AW is an emerging topic in Latin America and the situation regarding lack of instructors should be improving.

One strategy used in Latin American countries to implement animal welfare education at the university level, has been through the use of WSPA's and University of Bristol "Concepts in Animal Welfare" (CAW) programme; although this course only provides a guidance to instructors and is not equivalent to a continuing education programme, it has been used to train instructors in Colombia, Chile, Brazil and Uruguay.

In the case of Chile, the topics included in CAW are taught to second year students of Veterinary Medicine at the Universidad Austral de Chile at an optional Animal Welfare course, since 2006; later on during their final year they have a course on Applied Animal Welfare, where they can study in more detail professional applications of the subject introduced only in 2008. Another Chilean university that has specific courses on animal welfare is the Universidad Mayor, this was the first school to introduce a mandatory course on animal welfare in its curricula in 2002. Particularly in the case of Chile, animal welfare appears to have been emphasized in the

past 10 years because of some professional's training in this area and because of academic links with specialized groups, especially British groups (Tadich et al, 2010).

In the case of Brazil, some of those who now deliver animal welfare courses attended courses on the science and teaching of applied animal behaviour and animal welfare organised between 1992 and 2009 in UNESP, Jaboticabal, by Dr Mateus Paranhos da Costa with Professor Donald Broom as one of the lecturers. Conferences relevant to the teaching of welfare during housing, transport and slaughter were arranged during the last 15 years in Jaboticabal, Porto Alegre, Concordia, Campo Grande, Brasilia, Goiania, Curitiba and Rio de Janeiro by Paranhos da Costa, Adroaldo Zanella, Carla Molento, WSPA and others. External speakers such as Broom, Neville Gregory and Ana Pinto contributed. The first animal welfare course taught to veterinary students by Brazilian lecturers was in 1999 at the Universidade de Brasilia. Today one third of the 160 institutions offering veterinary programmes in Brazil have animal welfare teaching courses (Molento, 2008; Molento & Calderón, 2009; Tadich et al, 2009).

The experience of the Universidad Nacional Autónoma de México (UNAM) was that between 1989 and 1993 they organized four courses of applied ethology and animal welfare taught by Professor Donald Broom, Dr. Temple Grandin and Dr. Gerrit van Putten, with the aim of training academics that later on would be in charge of lecturing on the applied ethology and animal welfare courses, included in the curriculum of the university already in 1993. In 2003 the curriculum was modified so that it would include mandatory as well as optional animal welfare courses (Galindo, 2010)

The topics emphasized in the undergraduate teaching of animal welfare at the different schools in Latin America include farm animals, companion animals, working animals, wildlife, zoo animals, and to a lower degree laboratory animals (Tadich et al, 2010). More or less emphasis is given to each topic depending on the Universities research and academic strengths.

Postgraduate Masters and Doctorate degrees are also run in the subject in some countries. In Brazil the first postgraduate course was taught in 1998 at the Universidade Federal Fluminense, whilst in the case of Chile animal welfare is being included as a topic for postgraduate research at the Universidad Austral de Chile. In 2010 the Universidad Mayor opened a Diploma in Veterinary Clinical Ethology and Animal Welfare. Mexico has included applied ethology and animal welfare into their postgraduate lectures at the UNAM since 1998, with over 30 graduates in the area up to this time (Galindo, 2010).

Even though the teaching strategies might differ between countries they all seem to agree on the concepts that animal welfare courses must include, such as ethics and scientific concepts of animal welfare, animal behaviour and animal needs, legislation, uses of animals and animal welfare assessment strategies (Broom, 2005). In each country these concepts are taught in accordance to its own social and religious views. Consequently, the main research topics in relation to animal welfare, at some veterinary schools in Latin America are related to humane slaughter for farm animals, wild animals, transport of animals, husbandry of animals (cattle, pigs and poultry are emphasized), control of stray dogs, laboratory animals, working animals (horses and donkeys), animals used for traditional festivities and sports, humane slaughter during disease outbreaks (Tadich et al, 2010). Animal welfare is part of the broader areas of sustainability in agriculture and of product quality and can be introduced to the curriculum in this way (Broom 2001, 2010).

Other Strategies for Animal Welfare Education

Another way of disseminating information about animal welfare topics and relevant research in the subject is through the organization of conferences, workshops and seminars. Since 2004 numerous national and international meetings dealing with animal welfare have been organized in countries such as Argentina, Brazil, Chile, Colombia and Uruguay. During 2009 the Animal Welfare Programmes of the Universidad Austral de Chile and the Universidad de la República del Uruguay were officially recognized by the OIE as a Collaborating Centre for Animal Welfare Research Chile-Uruguay; the first activity organized by the new Collaborating Centre was the 1st Meeting of Animal Welfare Researchers, which was held in Valdivia, Chile, in November 2009. This meeting attracted more than 140 people from 12 Latin American countries, who presented 60 posters showing research activities currently going on in the region. Most National and Pan-American Veterinary Congresses in Latin America are nowadays including a specific topic on animal welfare.

The use of new technologies for animal welfare teaching or the delivery of information related to research in the area is also important, since they allow a higher number of persons to be reached at lower costs. Many Latin American university teachers took the on-line Cambridge e-learning course on animal welfare in English and Portuguese run from Cambridge, U.K. by Dr Ana Pinto. Several animal welfare groups in Latin America have their own websites where access to information is free; scientific papers and other helpful documents and didactic material can be downloaded; news about courses and conferences are disseminated and

visitors can send their inquiries to researchers. Some examples of these websites are: www.bienestaranimal.cl by the Animal Welfare Programme of the Universidad Austral de Chile; www.bienestaranimal.org.uy by the Animal Welfare Group of the Universidad de la República, Uruguay; www.grupoetco.org.br by the Ethology and Animal Ecology Group at the São Paulo State University, Brazil. Some e-learning material, is also being incorporated in some of these web pages, as it is the case of the “Interactive guide for the handling of cattle”, recently made available within the Chilean webpage.

Another strategy used to promote animal welfare at different levels in Latin America has been the development of written material such as fact sheets, booklets and other didactic material, containing information on how to properly handle production animals on farms, during transport and at slaughter; some of them have also been developed for children at school level. All three groups mentioned above are constantly producing such material, which is characterized by the incorporation of plenty of photographs, drawings and schemes that make animal welfare easy to understand even for people with little education.

Strategic alliances between countries are necessary in order to put the internationally accepted standards (OIE, 2009) into practice and complement the efforts of different groups working in animal welfare within Latin America.

Conclusions

The conclusions of the general discussion during the workshop held in Brazil in June, about the future of animal welfare teaching were summarized by Broom (2010 b); they were partly concerned with advocating the occurrence of such courses and partly with the practicalities of preparing and presenting courses.

Children in schools can be taught about the basic functioning of animals as individuals with brains and abilities to control their environments. They can also be taught to respect living animals and introduced to basic ethical issues of what is right or wrong in this area.

The idea can be introduced that individuals, including the commonly encountered animals, have diseases, pain systems and welfare that can be assessed using measurement. In universities, all students who work with or study animals should receive some instruction about animal welfare. The courses can be as described above and are important because these people will be the teachers of the future. It was generally agreed that all those who work with mammals, birds and fish, for example on farms or in laboratories, should be required to attend courses on animal welfare, including information about animal diseases. Much of the key

information required in these courses concerns simpler or more elaborate descriptions, depending on the educational level of the recipients. Although face-to-face training on courses is the best method of instruction, booklets and other documents and material, including videos, on the internet are also of value.

It was thought that a summary of the information presented in the Workshops could usefully be made available to the public and presented to relevant government departments in Latin America.

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