

Unnecessary and cruel use of animals for medical undergraduate training in India

Dear Editor,

Many medical colleges in India, if not all, continue to conduct animal experiments –especially in physiology and pharmacology courses – as a part of classroom training. However, students and teachers in these colleges overwhelmingly favor replacing the use of animals in undergraduate medical training.^[1-4] Yet cruel animal experiments continue despite a progressive new directive from the Medical Council of India stating that medical schools are no longer required to maintain an animal house and now have the option of replacing the use of live animals in medical-course experiments with sophisticated non-animal training methods, such as computer-aided education.^[5] More than 95% of medical schools in Canada, the UK and the US (including Harvard and Yale) have stopped using animals in their standard medical school curricula. So why are medical teachers in India finding it so difficult to get rid of something that is internationally accepted as unnecessary, cruel and redundant?

According to an article in the Indian Journal of Pharmacology, "Most (if not many) teachers in India are aware that students are increasingly reluctant to sacrifice animals for learning and understanding a well-documented pharmacological fact".^[5] Several medical teachers in India have responded quickly to this change in students' perception and have started using alternatives to animal experiments for teaching purposes. People for the Ethical Treatment of Animals (PETA) India have successfully worked with a number of Indian educators to replace the use of animals in medical training. For example, Dr. K. Sri. Nageswari, former head of the Department of Physiology at the Government Medical College in Chandigarh, has written a book called *Experimental Physiology Manual for Computer Based Amphibian Experiments*. Dr. R. Raveendran, professor of pharmacology at Jawaharlal Institute of Postgraduate Medical Education and Research, created another such innovation: ExPharm, a software program in which pharmacological experiments are simulated, permitting students to learn and be tested via the computer (www.indphar.org). Professor C. R. Patil of the R. C. Patel College of Pharmacy has also developed a software program, Xcology, for replacing the use of animals in pharmacology classes (www.indphar.org). High-fidelity human patient manikins, such as Laerdal's SimMan 3G, can also be used to demonstrate realistic

physiological responses to drugs at various dosages without the use of animal experiments (www.laerdal.com).

In 2003, the Pharmacy Council of India (PCI) issued a directive to all pharmacy schools in India to adopt ExPharm as a complete replacement to the use of animals in pharmacology courses. Indeed, PCI wrote to PETA: "The Council is not asking the institutions to do the mandatory practicals under Education Regulations 1991 by using animals. Instead, the Council has issued instructions to institutions to use alternative measures to complete the syllabus".^[6]

Many medical educators have expressed that – given the ethical issues surrounding the use of animals in medical training experiments and the effective non-animal methods available – the current animal-based curricula persist as a result of inertia rather than any scientific or educational necessity.

I urge the pharmacologists and physiologists of India to work with PETA to spare animals from tremendous suffering and a cruel death in medical college laboratories and to provide future physicians with a more modern and human-relevant educational experience.

Dharmesh Solanki

Manager, Special Projects, People for the Ethical Treatment of Animals (PETA), Mumbai, India

Address for correspondence:

Mr. Dharmesh Solanki, Manager, Special Projects, People for the Ethical Treatment of Animals (PETA), Mumbai, India.
E-mail: dharmeshs@petaindia.org

DOI:10.4103/0976-500X.64537

REFERENCES

1. Roy V, Tekur U. Animal experiments in medical undergraduate curriculum: a teacher student perspective. *Indian J Pharmacol* 2001;33:104–7.
2. Gitanjali B. Animal experimentation in teaching: time to sing a swan song. *Indian J Pharmacol* 2001;33:71.
3. Dhingra MS, Singh A, Singh J. Animal experiments and pharmacology teaching at medical schools in india: a student's eye view. *AATEX (Alternatives to Animal Testing and Experimentation)* 2006;11:185–91.
4. Arora R, Berry V. Animal experiments in medical undergraduate curriculum – assessment of students' views. *Health Adm* 2005;17:63–7.
5. Medical Council of India, New Delhi, Amendment Notification of 8 July 2009 to the Minimal Standard Requirements for Medical Colleges with 150 Admissions Annually, Regulations 1999.
6. Pharmacy Council of India, letter to PETA India, 2008.