

Welfare indicator: The percentage of scientific journals with ethical policies and guidelines relating to the use of animals in research and testing

RSPCA concern

Publication of the results of scientific research, together with full details of how experiments were done, is essential for aiding scientific progress. Publication is also important to individual scientists as evidence of their productivity and research prowess, on which their ability to maintain and attract financial support depends. Scientific journals constitute the most important medium for research publication, and in those fields where animals are used in research, they have both an opportunity and a responsibility to influence both ethical and practical standards in animal use.

The RSPCA is concerned that this responsibility is not being fully or consistently discharged by all scientific journals publishing research involving the use of animals, and that opportunities to improve standards are not being utilised adequately.

Background

Effective ethical review should be a continuous process throughout the life of every research project involving the use of animals. It encompasses the weighing of harms to animals against the foreseen benefits of an experiment, and ensuring that the 3Rs¹ – reduction, refinement and replacement – are fully implemented. Funding organisations, legislative bodies and scientific journals can all have an important role in ensuring that the objectives of ethical review are fully met, but each will have a different focus and extend its influence in a different way.

The RSPCA believes that every journal that publishes research involving animals should have a publication policy that recognises the importance of both ethical review and animal welfare, and defines relevant criteria for rejecting or accepting reports of animal research for publication.

For example, each journal should require authors to address the ethical issues raised by their research, and to provide evidence that it had undergone thorough ethical review before it was carried out. Journals can also act as a driving force to improve standards of animal care and use, by requiring that animal research conforms to current best practice and, where applicable, follows relevant published guidelines.

The RSPCA also believes that journals should require authors to include in their papers as much detail as possible on their use of animals. For example, information on the numbers and species of animals used (with reasons), details of housing and care provided, methods of analgesia and anaesthesia, and how the 3Rs were applied. This information is essential for a proper description of the scientific protocol as well as disseminating best practice in the use of animals and applying the 3Rs.

By ensuring that adherence to a defined publication policy is a requirement for publication, journals will facilitate the uptake and implementation of the 3Rs and contribute to the development of more humane science. They will also stimulate informed discussion of the ethical and welfare issues that are integral to the use of animals in research and testing, and contribute to greater openness and transparency regarding the use of animals in science.

In 2007, the RSPCA began an annual review of journal publication policies to assess whether, and how well, these issues were being addressed. Surveys were conducted in 2007, 2008, 2009, and 2010.



THERE HAS BEEN LITTLE CHANGE OVER THE PAST FOUR YEARS.

The indicator figures

Scientific journals that publish the results of research on animals were found by searching a comprehensive database² of biomedical publications for articles referring to animals, and identifying the journals in which they appeared. Four surveys were conducted, each covering 12-month periods from July to June, for 2005/6, 2006/7, 2007/8 and 2008/9. The sampled journals were selected at random from those which had published more than four relevant articles during the 12-month period.

Some journals ended up being included in the sample for more than one year, so that the final total of unique journals surveyed across the four-year period was 868.

Publication policies of the journals in each sample were collected directly from the journal's website, usually from areas such as 'Instructions for authors', 'Ethical policies' or other relevant statements. The journal policies were then scored out of a maximum of 12 according to the following criteria.

A point was awarded for each of the following:

- having a policy relating to the use of animals in research
- requiring adherence to specific guidelines, codes of conduct or legislation relating to research involving animals, and providing links to them
- a requirement that the research had undergone ethical review before it was carried out
- having an overall considered, positive statement regarding animal welfare or the ethics of animal use
- stating that adherence to the relevant policy was a precondition for publication.

And for specific requirements that:

- maximum possible implementation of the 3Rs is demonstrated
- animal housing and care followed contemporary good practice (better than minimum standards set out in the relevant legislation)
- appropriate anaesthesia and analgesia to minimise discomfort, distress and pain was used
- humane endpoints were defined and implemented

- the research was carried out by investigators and personnel who were appropriately trained and qualified to handle and use animals
- euthanasia was carried out according to best contemporary practice
- all information that is suitable for publication, such as species, strain and numbers of animals and other pertinent details including refinements in husbandry and procedure are included in the article.

Where a policy relating to animal use was not found on their website, an attempt was made to contact the journal editor, asking where any publication policy could be found. If no relevant policy could ultimately be found the journal was scored as zero³.

The average scores for all the journals sampled were 1.27 in 2005/6, 1.13 in 2006/7, 1.40 in 2007/8, and 1.31 in 2008/9. This is extremely disappointing, and indicates no trend for improvement over the four-year period.

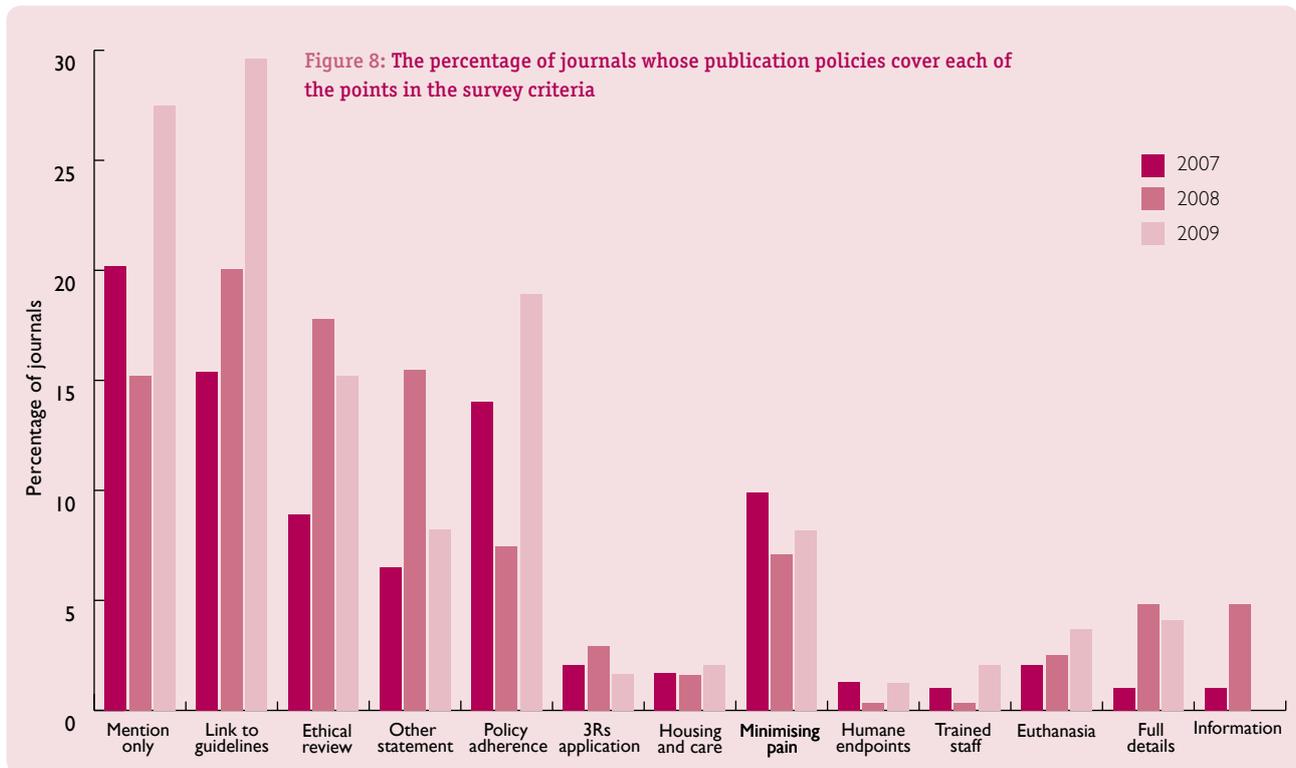
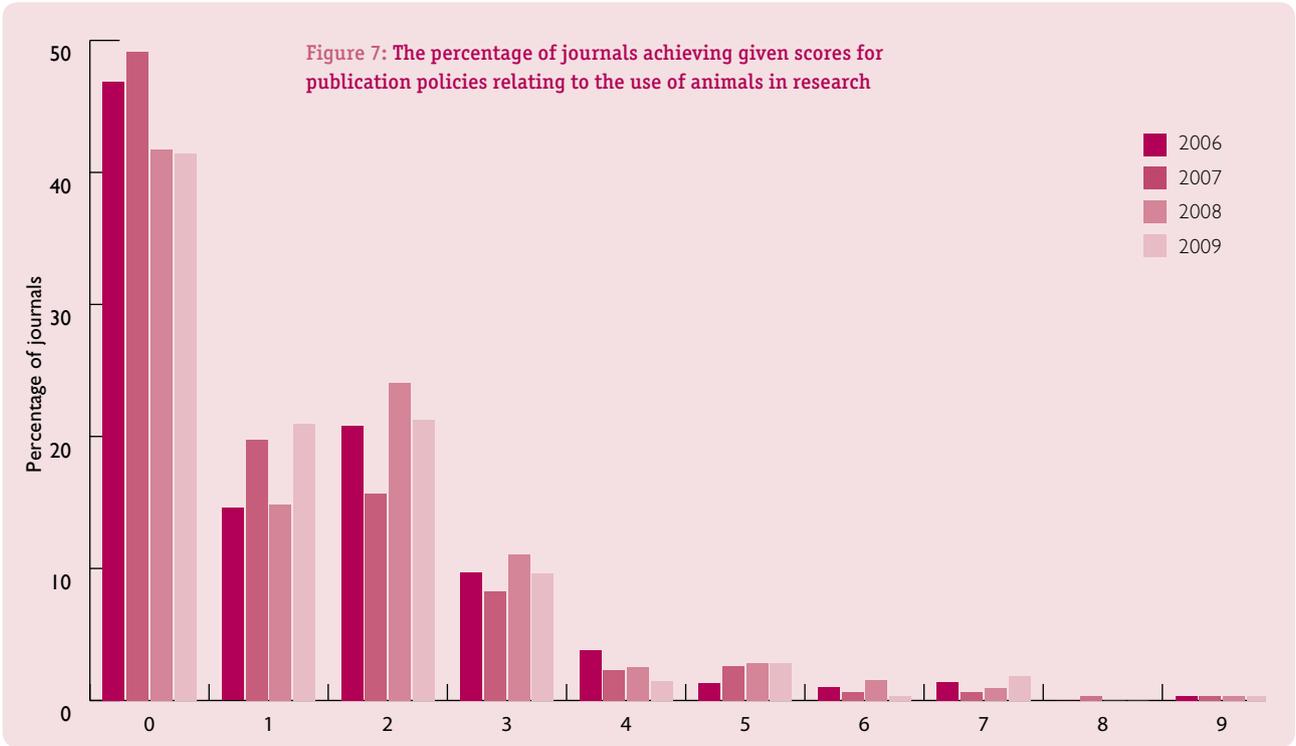
Overall, no evidence of a relevant policy was found for 44.6 per cent of journals. Enquiries to these journals met with much openness, interest and encouragement on the part of the editors or their publishers, but there was only a slight decrease in the proportion of zeros over the four years of the survey.

The average scores for the journals that did have relevant policies were 2.4 in 2005/6, 2.2 in 2006/7, 2.4 in 2007/8, and 2.2 in 2008/9. This suggests that even those journals that recognise the need for some sort of publication policy on animal experiments are not generally improving at a discernable rate.

The highest score achieved was nine, but for only one journal in each sample (see Figure 7).

The frequency with which points were awarded for specific criteria was analysed for three of the survey periods; 2006/7, 2007/8, and 2008/9. The results are shown in Figure 8.

Overall, of those journals with a relevant policy the greatest proportion (21 per cent) referred authors to specific guidelines, codes of conduct or legislation relating to research involving animals. There appeared to be an upward trend in the number of such journals during the three years. Although this is important, legislation and guidelines can be very variable in scope, level of detail, and standards required. Also, complying with the law is a necessity, not an option. Merely citing guidelines does little to ensure that a robust ethical review has taken place, or that the 3Rs have been implemented.



Data source: RSPCA.

Only 14 per cent required that the research had undergone ethical review (including the weighing of the likely adverse effects on the animals against the benefits of the work), and reference to the 3Rs was made by a mere 2.3 per cent. Requirements relating to the inclusion of essential information such as species, strain, and housing conditions were given by only 3.3 per cent of policies.

Only 13 per cent made it clear that adherence to a policy relating to animals was an absolute condition for an article to be published in their journal.

The RSPCA recognises that journals may operate publication policies which are not stated explicitly in their author guidelines. Publication is at the discretion of editors, and is influenced by the opinions of expert reviewers. Many editors undoubtedly operate unstated ethical policies with regard to animal research, as many have told us. Nevertheless, the RSPCA believes that, if the general standard of ethical review and reporting is to be improved, explicit policies need to be developed and made readily available by all relevant journals.

As a direct result of RSPCA communication with them, a number of journals have either adapted, or are in the process of adapting, their policies to include details relating to the use of animals. Furthermore, some of the journals assessed in more than one year changed their policies and showed an improvement on their scores from previous years.

The RSPCA calls upon every scientific journal that publishes research involving the use of animals to:

- acknowledge that the use of animals in scientific procedures raises serious ethical and welfare issues
- define the nature of the research that editors consider is acceptable/unacceptable for publication on ethical grounds
- request confirmation from authors that research has undergone a rigorous harm-benefit analysis as part of an ethical evaluation, and that animal welfare and other 3Rs issues have been properly addressed
- be prepared to publish sufficient information on experimental design, the 3Rs and animal welfare in order to help disseminate this to the wider scientific community
- make instructions easily accessible and explain clearly what information authors need to include in papers for the research to be accepted for publication
- require reviewers to make sure the above points are taken into account in the papers they review
- require adherence to the editorial policy as a stipulation for publication.

The RSPCA has produced a factsheet⁴ for journal editors, outlining what the Society believes journal publication policies should include. A number of journals and publishers are working with the Society to adapt their editorial policies.

In the coming years work will continue with journals, and publishers, with the aim of persuading them to adopt policies, tailored to their own particular publications, which relate to the use of animals in research and testing. By developing journal policies, the RSPCA believes that significant advances can be made in the welfare of the many animals used in research each year.

FOOTNOTES AND REFERENCES

- 1 The 3Rs are: replacing animals with humane alternatives, reducing animal use, and refining husbandry and procedures to reduce suffering and improve welfare throughout the animals' lives.
- 2 PubMed: US National Library of Medicine, National Institutes of Health: www.ncbi.nlm.nih.gov/PubMed
- 3 This is a departure from the previous practice of not scoring journals if they did not respond to enquiries, and reporting them separately as 'No policy'. Due to this change, the results stated for 2006–2008 have changed slightly from previous reporting.
- 4 RSPCA (2009). 'Editorial policies of scientific journals regarding the use of animals'. RSPCA: Horsham. Available at: www.rspca.org.uk/scientificjournals