The Old School, Brewhouse Hill, Wheathampstead,
Hertfordshire AL4 8AN, UK

Animal Welfare 2012, 21(S1): 73-79
doi: 10.7120/09627281 2X13345905673764
ISSN 0962-7286

Welfare risk assessment: the benefits and common pitfalls

LM Collins

School of Biological Sciences, Queen's University Belfast, Medical Biology Centre, 97 Lisburn Road, Belfast BT9 7BL, UK; email: l.collins@qub.ac.uk

Abstract

Risk is defined as a situation involving exposure to danger. Risk assessment by nature characterises the probability of a negative event occurring and quantifies the consequences of such an event. Risk assessment is increasingly being used in the field of animal welfare as a means of drawing comparisons between multiple welfare problems within and between species and identifying those that should be prioritised by policy-makers, either because they affect a large proportion of the population or because they have particularly severe consequences for those affected. The assessment of risk is typically based on three fundamental factors: intensity of consequences, duration affected by consequences and prevalence. However, it has been recognised that these factors alone do not give a complete picture of a hazard and its associated consequences. Rather, to get a complete picture, it is important to also consider information about the hazard itself: probability of exposure to the hazard and duration of exposure to the hazard. The method has been applied to a variety of farmed species (eg poultry, dairy cows, farmed fish), investigating housing, husbandry and slaughter procedures, as well as companion animals, where it has been used to compare inherited defects in pedigree dogs and horses. To what extent can we trust current risk assessment methods to get the priorities straight? How should we interpret the results produced by such assessments? Here, the potential difficulties and pitfalls of the welfare risk assessment method will be discussed: (i) the assumption that welfare hazards are independent; (ii) the problem of quantifying the model parameters; and (iii) assessing and incorporating variability and uncertainty into welfare risk assessments.

Keywords: *animal welfare, expert opinion, policy, prevalence, risk assessment, welfare hazard*