

A Review Of Handling Methods Of Rabbits Within Pet, Laboratory And Veterinary Contexts

James A. Oxley¹, Clare F. Ellis², Anne McBride³ and Wanda. D. McCormick²

¹ Independent Researcher 35 Farnes Drive, Gidea Park, Romford, Essex, RM2 6NS

² Moulton College, West Street, Moulton, Northamptonshire, NN3 7RR

³ Psychology, University Of Southampton, Southampton, SO17 1BJ

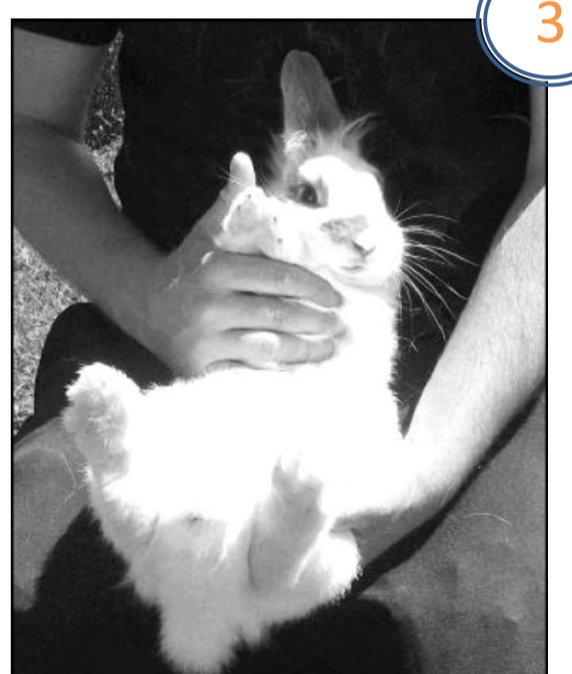
Correspondence: James_oxley1@hotmail.com



Introduction & Aim

- Approximately 0.8 million pet rabbits are in the UK and 14,000 laboratory procedures involving rabbits occurred in 2014 (Home Office, 2015; PFMA, 2016).
- Rooney *et al.* (2014) found that the majority of pet rabbits UK were handled at least weekly.
- Previous research relating to rabbit handling generally focuses on the effects of handling (e.g. fear) within farming or a laboratory setting with little description of handling method used (e.g. Podberscek *et al.*, 1991; Verwer *et al.*, 2009).
- ‘Handling’ and ‘Restraint’ are broad terms, widely used in research involving rabbits and lack definition.
- Some handling methods are controversial, such as Scruffing and Tonic Immobility (TI) (a.k.a. trancing, dorsal recumbency, hypnotising).
- Little research has been conducted on rabbit handling by pet owners and methods used within pet, veterinary and laboratory contexts.
- This study aimed to investigate methods of handling between contexts by conducting a review of books.

Figures 1–5: Common handling methods



Method

- A range of textbooks were selected from the years 2000 – 2015 that were available on both Google books and the Amazon website.
- A List of books reviewed are available upon request.
- Books were included where specific handling/restraint sections could be identified which were aimed at pet owners, veterinary staff and/or laboratory staff.
- To identify the recommended handling methods and evaluate information available the following was recorded:
 - Number of handling and restraint methods described and use of images,
 - Justification for suggested methods (e.g. animal welfare/human health and safety) and hazards,
 - Identification of inappropriate handling methods.

Results

- In total 20 books were reviewed, ten pet rabbit, seven veterinary animal/rabbit and three laboratory animal/rabbit books.
- Handling and restraint methods were defined according to the description in each book. For results see the tables below.

Pet Books (10)

No. of different handling methods:	7 handling methods (range: 0 – 2 method(s) per book)
Handling methods:	<ul style="list-style-type: none"> • One hand under rear, other hand across back of head • One hand under rear, one hand over shoulder (fig. 1) • One hand under rear, one hand under chest (fig. 2) • Head under arm and other arm supporting body (fig. 5) • Scruffing (fig. 4) • ‘Keep close to chest’ • All four feet held against body
No. handling images:	5 images (range: 0 – 1)
No. of Restraint methods:	4 restraint methods (range: 0 – 2)
Restraint Methods:	<ul style="list-style-type: none"> • Tonic immobility (fig. 3) • TI (on back and stroke chest / abdomen / sides of head) • Support body and gently hold ears • Wrap in a towel • Place on a non slip surface and restrain by hands
No. Restraint Images:	1 image (range: 0 – 1)
Justification of handling/restraint:	<ul style="list-style-type: none"> • None: 2 • Health & Safety only: 1 • Animal Welfare only: 5 • Both AW/H&S: 2
Inappropriate methods:	By the ears (7)
Hazards identified:	Back legs, kicking, scratching/claws, escaping

Veterinary Books (7)

No. of different handling methods:	5 handling methods (range: 0 – 2 method(s) per book)
Handling methods:	<ul style="list-style-type: none"> • One hand support rear and one hand under chest (fig. 2) • Head under arm and other arm supporting body (fig. 5) • ‘Held close to chest’ • ‘Against body’
No. handling images:	6 images (range: 0 – 2)
No. of Restraint methods:	8 restraint methods (range: 2 - 4)
Restraint Methods:	<ul style="list-style-type: none"> • Tonic immobility (fig. 3) • Wrap in a Towel • Scruff and support rear (fig. 4) • Scruff and rear on flat surface • Vertical hold against body with one hand supporting chest • Hold vertical with rear on flat surface • ‘Cat Bag’ • ‘Hold against table’
No. Restraint Images:	12 images (range: 0 – 5)
Justification of handling/restraint:	<ul style="list-style-type: none"> • Health & Safety only: 0 • Animal Welfare only: 1 • Both AW/H&S: 6
Inappropriate methods:	<ul style="list-style-type: none"> • By the ears (4) • Scruff alone (1)
Hazards identified:	Jumping/back legs, struggling, kicking, scratching/claws, teeth

Laboratory Books (3)

No. of different handling methods:	2 handling methods (range: 1 – 2 method(s) per book)
Handling methods:	<ul style="list-style-type: none"> • Head under arm and other arm supporting body (fig. 5) • Scruff and support hind (fig. 4)
No. handling images:	2 images (range: 0 – 1)
No. of Restraint methods:	5 restraint methods (range: 0 - 5)
Restraint Methods:	<ul style="list-style-type: none"> • Plastic/metal restraint device • Tonic immobility • ‘Cat bag’ • Cloth/towel • Scruff on secure surface
No. Restraint Images:	5 images (range: 0 - 5)
Justification of handling/restraint:	<ul style="list-style-type: none"> • Health & Safety only: 0 • Animal Welfare only: 1 • Both AW/H&S: 2
Inappropriate methods:	None stated
Hazards identified:	Jumping, kicking, scratching/claws

Conclusion

- Overall this study found that a number of handling and restraint methods are available and differ between contexts. Frequency of imagery between contexts also differs.
- Current research is being conducted by the authors on various factors relating to different handling methods used by owners, veterinary professionals and laboratory staff.
- Different lifting, handling and restraint methods may result in different behavioural and physiological responses by individuals rabbits. The welfare implications of these needs further research.

REFERENCES: Home Office (2015) Annual statistics of scientific procedures on living animals. Stationery Office. PFMA (2015) Pet population 2016. [www document] <http://www.pfma.org.uk/pet-population-2016> (Accessed 13/04/2016). Podberscek, A.L., Blackshaw, J.K. and Beattie, A.W. (1991) The effects of repeated handling by familiar and unfamiliar people on rabbits in individual cages and group pens. *Applied Animal Behaviour Science*. 28: 365-373. Rooney, N.J., Blackwell, E.J., Mullan, S.M., Saunders, R., Baker, P.E., Hill, J.M., Sealey, C.E., Turner, M.J. and Held, S.D. (2014) The current state of welfare, housing and husbandry of the English pet rabbit population. *BMC research notes*. 7: 1-13. Verwer, C.M., van Amerongen, G., van den Bos, R. and Hendriksen, C.F. (2009) Handling effects on body weight and behaviour of group-housed male rabbits in a laboratory setting. *Applied Animal Behaviour Science*. 117: 93-102.

