# How owners take care of their dogs during car transportation in Italy

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Abstract: The study aimed at assessing owners' behavior regarding dog transportation by car and how it may affect dogs' response to the journey; 907 dog owners filled in a multiple-choice item questionnaire, 28.3% of dogs responded negatively to car transportation. For problematic dogs, few owners administered substances. The most used means of restraint in the car were: net/grating (34.2%), kennel (22.4%), and seat belt/leash (15.9%). A high percentage of dogs (60.6%) are transported alone, 18.3% with other dogs and 1.7% with other animals. The company of other dogs did not seem to affect the negative response to car transportation (5.6% vs 6.0%).

While travelling, dogs were provided with: blanket (47.9%), water (27.0%), toys (13.1%), or food (3.5%). Dogs not provided with anything more frequently displayed problems (29.0% vs 20.7%;  $\chi^2$ =8.79, p=0.003). Administering water or a blanket seemed to be related to a good response to travel (respectively 14.3% vs 27.3%,  $\chi^2$ =13.52; p=0.000; 20.3% vs 27.1%,  $\chi^2$ =9.49; p=0.002), but not toys (26.9% vs 23.4%) or food (6.8% vs 9.2%).

The majority of dogs (86.0%) were used to travelling by car as puppies. These results appear to be useful in understanding how people take care of their dogs during car transportation and how owners' knowledge and animal welfare can be improved.

Key Words: dog, car transportation, behavior problems.

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## Introduction

Owners commonly move their dogs by car (Gandia Estellés & Mills, 2006), both for daily mobility and fun (Wöhr & Erhard, 2004). When analysing dog transport, several aspects must be considered, such as dog's behavioral and physical response, how people could make the car more comfortable and safe for their dogs, and possible ways to accustom dogs to travel. Therefore, dog transportation is nowadays a very relevant welfare issue (Mariti et al., 2012).

This study aimed at assessing owners' behavior regarding dog transportation by car and how it may affect dogs' response to the journey.

### Materials and methods

A convenience sample of 907 dog owners, recruited in 30 Italian veterinary clinics and by personal contact, filled in an 8 multiple-choice item questionnaire. Possible predisposing factors to travel-related problems were examined by a  $\chi^2$  test (p<0.05).

### Results

Dogs usually responded positively to car transportation (76.2%), but 28.3% responded negatively (negative responses included restlessness, hypersalivation, vomiting, panting, barking, yelping, trembling, freezing, being down, scratching/destroying to exit, insistent liking, diarrhoea, and urinating). For problematic dogs, few owners administered substances: 1.3% used drugs (maropitant, acepromazine and other sedative or antiemetic drugs), 1.1% pheromones, 1.1% Bach Flowers and 0.2% homeopatic remedies.

Almost half (43.5%) of respondents claimed not to use any means of restraint in the car; the most used among the remaining 56.5% were: net/grating (34.2%), kennel (22.4%), and seat belt/leash (15.9%). A high percentage of dogs (60.6%) are transported alone, 18.3% with other dogs and 1.7% with other animals. The company of other dogs did not seem to affect the negative response to car transportation (5.6% vs 6.0%).

Most owners (65.8%) did not administer anything to the dog before travelling. Dogs responding always positively were more likely to be provided with food (3.8% vs 9.3%,  $\chi$  <sup>2</sup>=5.19; p=0.023) or water (4.2% vs 10.2%,  $\chi$ <sup>2</sup>=8.14; p=0.004) before getting in the car.

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The majority of dogs (86.0%) were used to travelling by car as puppies; this made them less likely to develop problems (6.3% vs 24.1%,  $\chi^2$ =19.89; p=0.000).

Using the car solely to go to veterinary clinics was related to display travel-related problems (46.4% vs 22.7%,  $\chi^2$ =7.24; p=0.007).

### Discussion

Results of this survey revealed that, despite a relevant number of dogs (about ¼ on the whole sample) responded negatively to car transportation, only few owners used drugs or other remedies to help dogs cope with the journey. Moreover, a lot of owners did not to use any means of restraint for their dogs during car transport, similarly to what was found in Germany by Wöhr & Erhard (2004). Despite the lack of specific laws in Italy, widespread information about how to transport dogs safely should be crucial, in order to protect safety and welfare of both dogs and people. Use of devices is common during the journey. It seems that some devices used before or during the journey (especially water, food and blanket) are associated with good response to transportation, but further research are needed to understand whether they have a beneficial effect or rather it is common practice to provide them to dogs reacting positively. Cannas et al. (2010) found that the use of a device was more frequent in dogs without travel-related problems, but authors included inanimate objects and pets, the latter probably having a different effect (eg. higher comfort or more excitement). As for effects of travelling alone or with other dogs, no difference was found in the current survey. As suggested by Doring-Schätzl & Erhard (2004), the best prophylaxis against negative responses consists of habituating dogs to transportation since puppies, preventing the risk of sensitization. Finally, it is very important avoiding the use of the car only in unpleasant situations (eg. moving dogs by car only to go to veterinary clinic), in order to prevent negative associations and anticipation. These results appear to be useful in understanding how people take care of their dogs during car transportation and how owners' knowledge and animal welfare can be improved.

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#### La cura del cane da parte dei proprietari italiani durante i viaggi in auto

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#### Sintesi

Lo studio ha avuto lo scopo di valutare il comportamento dei proprietari di cani durante il trasporto dell'animale in auto. A tale proposito sono stati raccolti 907 questionari, compilati da proprietari di cani. I dati emersi hanno dimostrato che il 28,3% dei cani non tollera il viaggio in auto ma solo pochi proprietari somministrano farmaci all'animale. I più comuni mezzi di contenzione utilizzati erano: griglie (34,2%), trasportino (22,4%), cinture di sicurezza (15,9%).

Un'elevata percentuale di cani è trasportata da soli (60,6%) mentre il 18,3% è trasportato con altri cani e 1,7% con altri animali. La presenza di altri cani non sembra influenzare la risposta negativa al trasporto in auto (5,6% vs 6,0%).

Durante il viaggio al cane erano forniti: coperte (47,9%), acqua (27,0%), giocattoli (13,1%) o cibo (3,5%). I cani a cui non era fornito nulla presentavano più frequentemente problemi comportamentali (29,0% vs 20,7%;  $\chi^2$ =8,79, p=0,003).

Fornire acqua o una coperta sembra essere correlata con una buona risposta al viaggio (rispettivamente 14,3% vs 27,3%,  $\chi^2$ =13,52; p=0,000; 20,3% vs 27,1%,  $\chi^2$ =9,49; p=0,002). Nessun effetto invece è stato trovato per i giocattoli (26,9% vs 23,4%) e il cibo (6,8% vs 9,2%).

La maggioranza dei cani (86,0%) è stata abituata a viaggiare in auto da quando erano cuccioli.

Questi risultati possono essere utili per capire come i proprietari trasportano i cani in auto e come sia possibile migliorare il loro benessere.