

# Sold a Pup? Do Early Life Experiences, Purchasing Practices, Owner Characteristics and Dog Demographics Impact on Later Canine Health Outcomes?



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## Introduction

- Every year there are an estimated 800,000 to 1.3 million puppies purchased in the UK (Maher and Wyatt, 2021).
- Despite common assertions that puppies acquired from non-recommended sources (e.g., 'puppy farms') have poorer future welfare, there is little evidence about the long-term health outcomes for such acquisitions, with existing data largely focusing on behavioural outcomes (e.g., McMillan, 2017)
- The COVID-19 pandemic precipitated a surge in owners acquiring puppies sold with reduced provenance transparency (e.g. away from the breeders' property), increasing the risk of acquisition from poor-welfare sources. The impact of provenance on long-term health of dogs is as yet unstudied.

## Study Aims

This study aimed to examine the impact of owners' puppy purchasing motivations and behaviours and dog/owner demographics on later health outcomes of dogs at 21 months of age in a cohort of UK 'Pandemic Puppies' – a naturally occurring cohort of dogs with increased levels of potential provenance-based risk factors for negative welfare outcomes

Study objectives were:

1. Describe the health and health-related outcomes of Pandemic Puppies at 21 months of age
2. Investigate association of provenance-based risk factors with the number of health disorders, veterinary visits and owner expectations of veterinary costs when dogs are 21 months of age



## Methods

**Study design:** Online longitudinal mixed method survey

**Sampling frame and recruitment:** Owners who completed the 2020 Pandemic Puppies questionnaire (Brand et al., 2022, Packer et al., 2021) who purchased their puppy and brought them home aged <16 weeks between 23rd March 2021 to 31st December 2021 and completed the 21 month questionnaire (n=985) via REDCap survey software

**Ethical approval:** All owners consented to take part, and the project received ethical approval (RVC SSRERB: SR2020-0259).

**Statistical analyses:** Separate multivariate models were constructed to evaluate risk factors for the following three outcomes:

1. Total number of owner-reported disorders per dog
2. Number of veterinary clinics or home visits from a veterinary professional
3. Owner expectations of veterinary costs



## Results

The majority of owners (94.5%) reported at least one canine health problem since the 2020 survey, the most prevalent disorder groups being enteropathy (75.4%), skin (26.8%), ophthalmological (25.1%), upper respiratory tract (18.5%) and ear disorders (17.6%).

Factors associated with **higher** numbers of health disorders:

- First-time ownership,
- dogs sold <6 weeks of age;
- dogs sold without the owner seeing the dog's mother;
- owners who had asked to see health test results from their puppy's parents prior to purchase;
- owners who had previously reported that their dog had one or more health disorders soon after they brought their puppy home, and
- owners who reported health issues they were concerned about at time of 2020 survey



Two factors were significantly associated with a **lower** number of health disorders:

- if dogs were female
- if owners were older: aged 55-64 years old and 65-74 years old

Factors associated with **higher** cost of veterinary care:

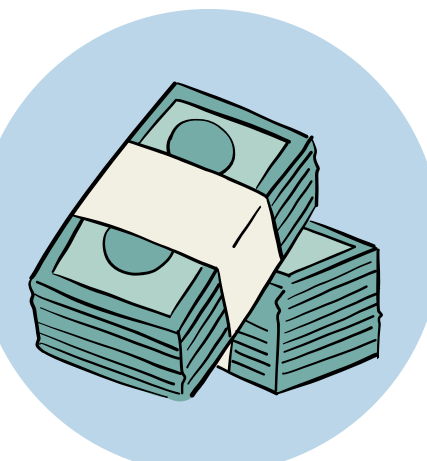
- Being insured
- Typical adult body weight of dogs of 30 to <40 kg (compared to 10 to <20 kg)

One factor was significantly associated with a **lower** cost of veterinary care:

- if owners were aged 75 years old or older (compared to owners aged 45 to 54 years old)

Factors associated with **increased odds** of owners reporting that they had spent **more than they expected** at veterinary clinics on their dog's health (23.8%):

- dogs being insured
- dogs sold without microchip details
- owners who asked breeder for the results of parents' health tests
- breeder had provided the initial vaccinations prior to sale
- owners who wanted a buy a dog to encourage exercise
- owners who reported health issues they were concerned about at time of 2020 survey while their dog was a puppy



## Conclusions

- These results suggest that longer term canine health outcomes are linked to how and from where a puppy is acquired and that greater purchasing prudence is needed by prospective owners to avoid supporting poor-welfare breeders/dealers, and avoid future health problems in their dog.
- The number of health disorders in dogs aged 21 months was strongly influenced by provenance-based factors with puppies sold under six weeks of age and puppies sold without the owners seeing the puppies' mothers - both now illegal under Lucy's Law - contributing to higher number of owner-reported disorders. Greater enforcement of this legislation, and greater awareness of this legislation by prospective buyers is needed to protect canine welfare.
- More effective education is needed to manage owner expectations regarding veterinary costs prior to acquisition of their dog given that 1 in 4 felt they were higher than expected.

## References

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