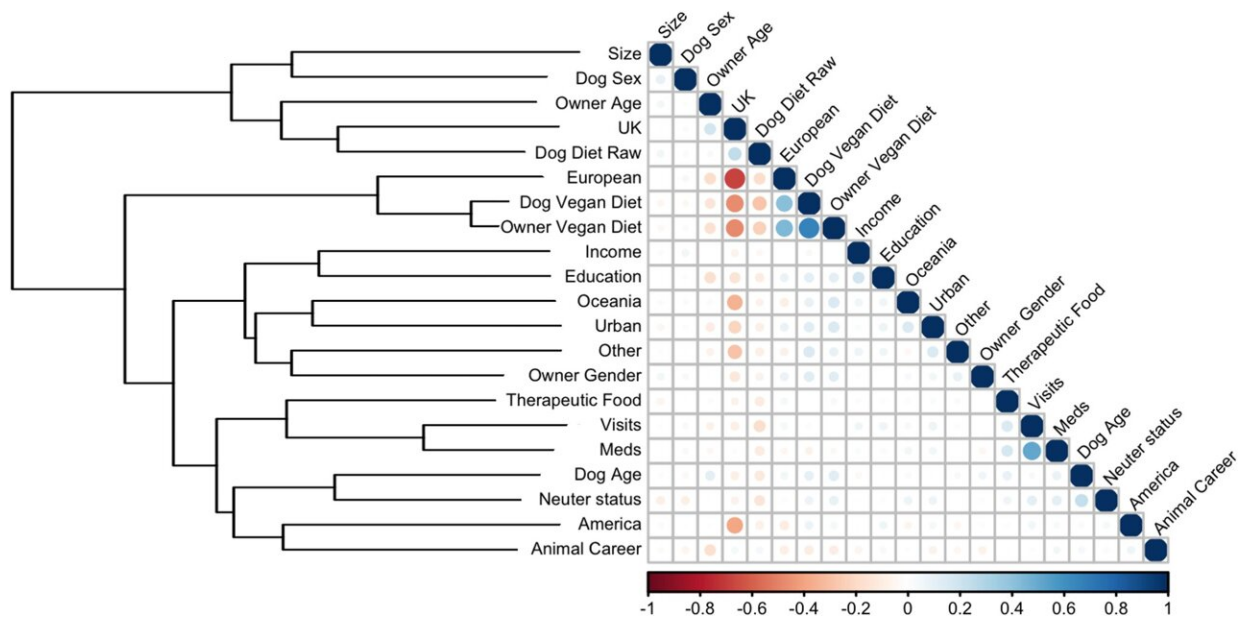


New research addresses alleged benefits of a vegan diet for dogs

May 15 2024



Variables associated with owner perceptions of the health of their dog: Further analysis of data from a large international survey. Credit: *PLOS ONE* (2024). DOI: 10.1371/journal.pone.0280173

Associations between feeding dogs a vegan diet and owner perceptions of their health are likely to be minimal, according to a new study by the

University of Liverpool. The work is [published](#) in the journal *PLOS ONE*.

Scientists at the University reinvestigated data that had been used to claim that a nutritionally-sound [vegan diet](#) is "the healthiest and least hazardous dietary choice for [dogs](#)." The findings from this new analysis do not support those earlier claims, with associations between owner perceptions of dog [health](#) and feeding a vegan diet instead being minimal.

The [previous research](#), published in April 2022, utilized an online survey of dog owners to gather information about them, their dogs and the type of food they fed to them. Owners were also asked to recall details of their dogs' veterinary care (e.g. number of veterinary visits, [use of medication](#), etc.) and to give an overall opinion about their dogs' health. The results of this original study implied that dogs fed either a raw meat or vegan diet appeared to fare better than those fed a conventional diet.

However, the new analysis by researchers at the University of Liverpool offers further insights.

Alex German, Professor of Small Animal Medicine, said, "On first reading this paper in 2022, it was evident that the study exclusively relied upon owner survey data and had an observational design, meaning that the associations between diet type and dog health could only suggest a possible correlation and not causality.

"In other words, it was not accurate to conclude that 'Nutritionally-sound vegan diets are the healthiest and least hazardous choices for owners to feed their pet dogs.' Further, the [statistical analyses](#) used did not explore the effect of possible confounding from other variables, such as the age

and breed of the dogs and owner variables including age, gender, education and diet."

The researchers conducted further statistical analyses on the original study dataset, utilizing different modeling techniques to investigate one outcome variable from the original study, owner opinions of dog health. They tested the effects of owner and dog diet, as well as other owner and dog variables, while some models also included veterinary care variables.

Owner opinions of dog health were most strongly associated with the age of the dog, with other variables (such as owner age, owner education, and breed size) also featuring. Model fit was improved when veterinary care variables were included. However, in all best-fit models (with or without the [veterinary care](#) variables), the association between owner opinions of health and feeding vegan dog food was minimal.

Commenting on these findings, Richard Barrett-Jolley, Professor of Neuropharmacology, said, "We know how seriously owners take their pet's health. By revisiting and further interrogating these data, we have been able to draw more nuanced insights. Crucially, we cannot draw a firm conclusion as to what diet type is actually best for dogs; this was never possible given the nature of the original dataset and [study design](#). However, we can conclude that variables other than dog diet are more strongly associated with owner opinions about the health of their dog."

The new study underwent a rigorous peer review process, and as per journal policy, the senior author of the original paper acted as a reviewer. Details of the review process as well as statistical analyses and the statistical code used are published alongside the paper.

More information: Richard Barrett-Jolley et al, Variables associated with owner perceptions of the health of their dog: Further analysis of data from a large international survey, *PLOS ONE* (2024). [DOI:](#)

[10.1371/journal.pone.0280173](https://doi.org/10.1371/journal.pone.0280173)

Provided by University of Liverpool

Citation: New research addresses alleged benefits of a vegan diet for dogs (2024, May 15)
retrieved 29 May 2024 from <https://phys.org/news/2024-05-alleged-benefits-vegan-diet-dogs.html>

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