

Food safety education campaigns: Should we include raw meat-based diets for pets in the equation?

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Introduction

In the EU 90 million households (46%) have been currently estimated to own at least one cat or dog (4). The proportion of pet owners who provide raw meat-based diets to pets is uncertain, but this trend is becoming increasingly popular and promoted by pet owner communities, holistic pet nutritionists, alternative veterinarians, and pet health activists (14). Because of minimal processing, frequent handling of raw meat products and close contact with raw fed pets, such diets may increase the risk of foodborne illness to pet owners if appropriate food safety practices are not implemented (8, 10, 16). Such additional risks must be considered when designing food safety education campaigns.

Thus, it is vital to get more understanding regarding pet owner motivations, perceptions and food safety practices when providing raw meat-based diets to pets.

Purpose

The aim of this study was to investigate the reasons and motivations behind the decision to feed pets raw meat and to explore self-reported food safety practices in the preparation of pet food among the UK and Slovenian pet owners.

Methods

Development of a data collection tool: The content of the survey was based on the Health Belief Model, which served as a framework for the questionnaire construction and provided a structured understanding of behaviour and cognitive factors.

Data collection: An online questionnaire was distributed via social media platforms and completed by pet owners practicing raw meat-based feeding in two countries. Data from two groups, one from United Kingdom (UK) ($n=174$) and another from Slovenia ($n=382$) were analysed and compared.

Ethical Approval: Ethical approval was obtained from the Healthcare and Food Ethics Committee at Cardiff Metropolitan University (PGT-1889) and the Chair of Environmental Health at the University of Ljubljana, Faculty of Health Sciences (Ref. no: 3/5/2022).

Results

Pet owner motivations to provide raw meat-based pet diets

The study compared pet owner reasons for choosing raw meat-based diets and pet owner beliefs in UK and Slovenian participant groups (Figure 1).

In this study, Slovenian pet owners reported being driven by the perceived health benefits which such diet can provide to pets, whilst UK pet owners strongly believed that processed food is bad for pets and raw meat-based feeding is a more “natural” and “species appropriate” choice (Table 1).

Overall, because companion animals are universally treated as members of the family (9), pet humanization and fulfilling the responsibility to care for their pet in the best possible way coupled with perceived benefits are driving raw meat-based pet diet trend in the UK and Slovenia.

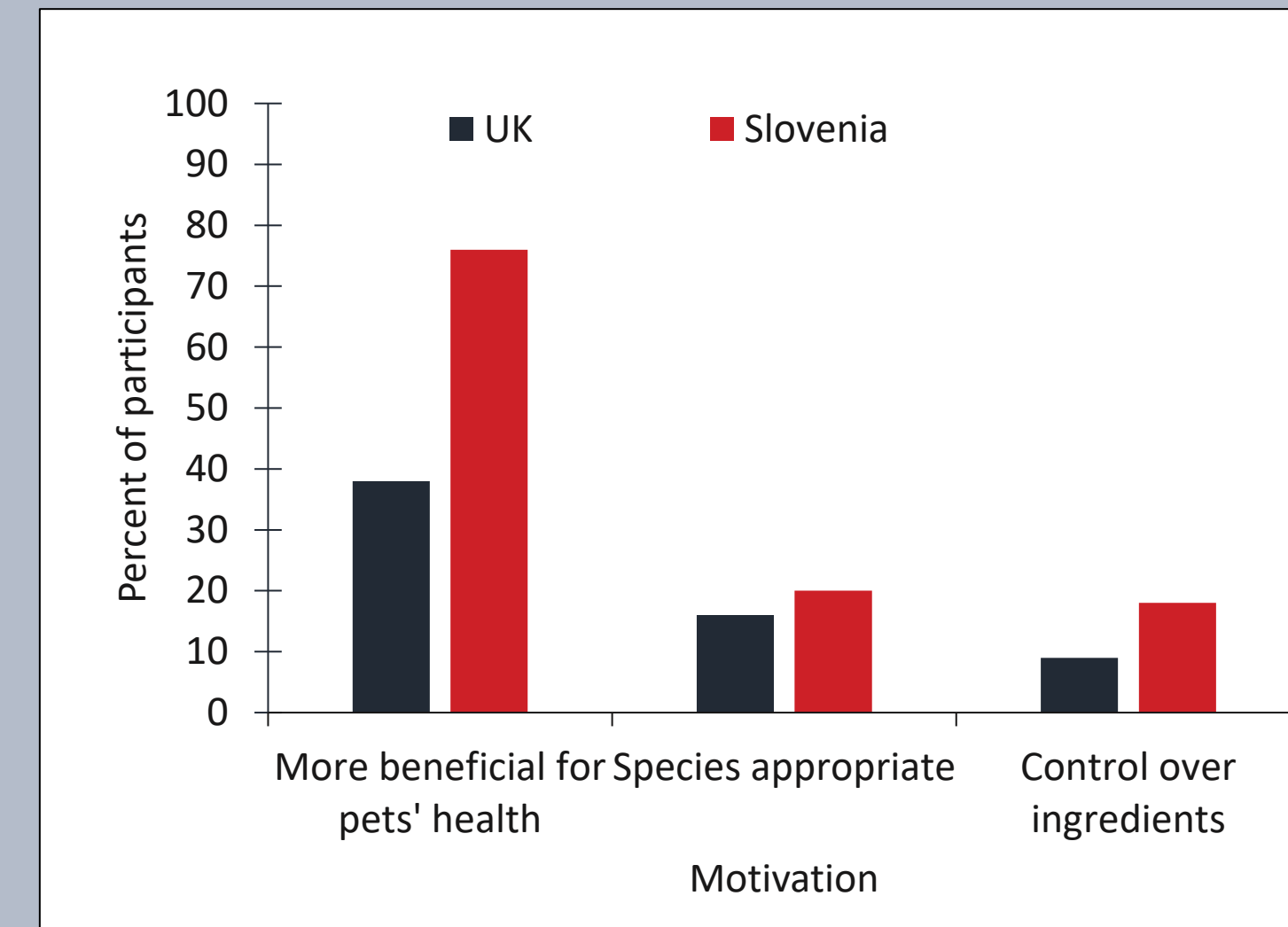


Table 1. Motivations and reasons behind choosing raw meat-based pet feeding, reported by pet owners in UK and Slovenia.

Motivation	Findings	Comments
Pet health benefits	Majority of Slovenian pet owners (76%) reported being motivated to provide raw meat-based diet to pets because of health benefits such as shinier coat and healthier teeth. Likewise, 38% UK pet owners reported health benefits as one of the major motivators (Figure 1).	Despite the perceived benefits of raw meat-based feeding, such as healthier teeth and coat, there is currently no scientific evidence to support that it is superior to appropriately formulated conventional pet diets (7, 11, 15).
Species appropriate	Pet owners from both UK (16%) and Slovenian (20%) groups stated that raw meat-based diet is more “species appropriate” for their pet. The majority of pet owners from the UK group (93%) stated that they believe that raw meat-based diet is “more natural”. Previous studies found that carnivorous nature of cats and dogs is one of the main motivators behind raw meat pet feeding choice (1, 2, 12, 13).	Although perceived to be more species appropriate, raw meat-based pet diets may lead to malnutrition and health problems in pets, unless appropriately formulated to sustain animal health (3, 6). Conventional diets are designed to provide necessary nutrients depending on the type of pet and their nutritional needs.
Control over ingredients	Pet owners reported choice of raw meat-based pet feeding was also motivated by the minimal processing and transparent ingredients (UK-9%; Slovenia-18%). Previous studies have demonstrated the fact that controlling and understanding ingredients in pet food is very important to the pet owners (1, 11, 12). Almost a half of pet owners in UK group (48%) did not trust the safety of conventional pet food and believed that processed food is bad for pets (67%).	Manufacturing of conventional pet diets involve the use of high-quality ingredients and conforms to safety laid down by regulations (5). Such diets undergo processing involving a kill step for bacteria and parasites which may be harmful to pet and human health.

Pet owner perceptions and self-reported practices

Pet owners were optimistic about the potential severity of foodborne illness with only over a third aware that foodborne illness may lead to a lethal outcome (UK-36%; Slovenia-35%). Perception that foodborne illness can be severe was indicated by 51% in UK and 42% in Slovenia, highlighting the need to investigate the country-specific differences further and to raise risk awareness in both countries.

In addition, both groups considered pet food preparation no different from human food preparation (UK-70%; Slovenia-73%).

Although very confident in their safe food handling practices (Figure 2), many pet owners in UK and Slovenian groups reported potentially serious malpractices such as inconsistent hand washing practices and rinsing raw meat (Table 2). These findings indicate possible optimistic bias among the pet owners.

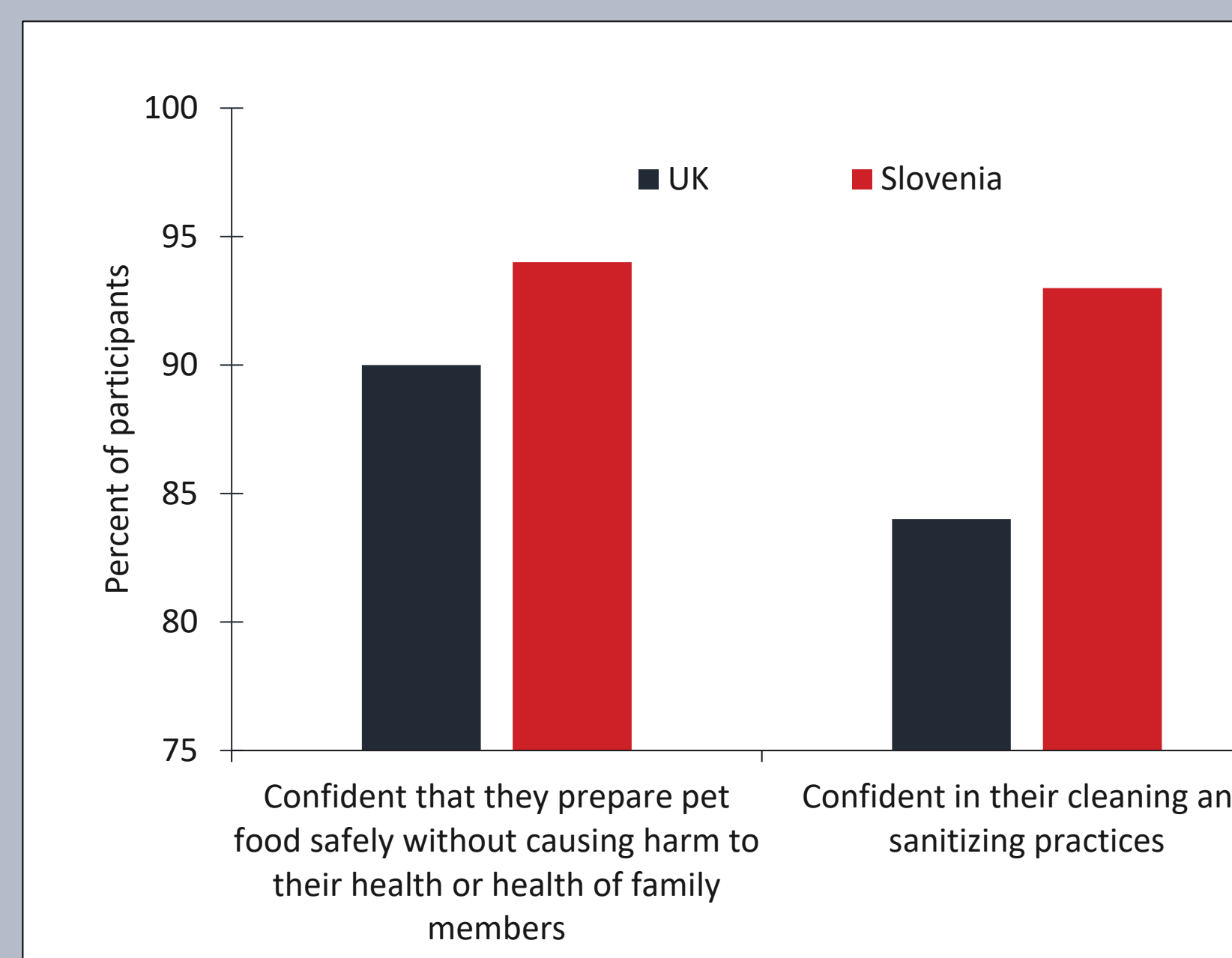


Table 2. Self-reported malpractices by raw feeding pet owners in UK (n=174) and Slovenia (n=382).

Inconsistent Handwashing	Rinsing raw meat
In the absence of appropriate handwashing the risk of foodborne illness may greatly increase for pet owners who provide raw meat diets.	Rinsing raw meat may lead to cross-contamination in the kitchen and to the spread of pathogens causing foodborne illness in humans and pets.
Failure to wash hands after raw meat-based pet diet handling was reported by 1% of respondents in the UK and less than 1% of respondents in Slovenia. Other respondents indicated inconsistent handwashing practice.	Malpractice of rinsing raw meat was reported by 27% of UK pet owners and 67% of Slovenian pet owners. The difference in findings may be country-specific, whereby rinsing meat may be more rooted and acceptable practice in Slovenia than in the UK, despite recommendations from public health authorities; but further investigation is required to confirm this.

Conclusions

The findings highlight that it is vital to include information about safe handling of raw meat and meat products into food safety educational campaigns for pet owners.

This study determined that pet owners in both UK and Slovenia are driven by a motivation to provide the “best” food for their pets. Participants believed raw meat-based diets to be more appropriate for pets and to have higher quality and safety, comparing to conventional diets.

Moreover, perception of invulnerability and optimistic bias about the competence to prepare raw meat-based diets safely was expressed by participants in both groups, despite reported malpractices.

Future educational campaigns should inform pet owners:

- of potential risks of foodborne illness associated with handling raw meat and meat products and about the appropriate food handling practices to mitigate such risks.
- that raw meat-based pet feeding is not superior to conventional pet feeding.

Recommendations

- There is a need for further studies investigating country-specific perceptions and practices of pet owners that provide raw meat-based diets.
- The design of educational campaigns may need to be country specific, depending on the accepted food handling practices in a given country.
- Availability of online platforms should be utilised for dissemination of universal comprehensive food safety information encouraging pet owners to handle raw meat-based diets safely.

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