UK consumer awareness of food safety practices associated with Campylobacter

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Introduction

Campylobacter is the most common cause of foodborne illness in the United Kingdom (UK), with an estimated economic cost of £900 million and causes 100 deaths annually.

Poor food-safety practices by consumers in the domestic environment are believed to be a common cause of Campylobacteriosis\(^1\). It is reported that 37% of foodborne illness outbreaks in the European Union are thought to originate in the home\(^2\). However, due to under-reporting of mild foodborne illnesses, it is estimated the true percentage of incidence originating in the home to be higher than reported\(^3\).

To reduce the risks associated with Campylobacteriosis in the domestic environment, consumers need to implement risk-reducing food safety practices, these include\(^4\):

- Cooking chicken thoroughly
- Avoiding cross-contamination
- Adhering to use by dates
- Good personal hygiene

Consequently, there is a need to determine consumer awareness of Campylobacter and explore consumer understanding and implementation of food-safety practices that may be associated with Campylobacter.

Methods

Self-complete questionnaire: An online self-complete questionnaire to determine consumer food-safety knowledge, attitudes and self-reported practices, hosted on Qualtrics, was distributed using social media (twitter and facebook) was completed by UK consumers (n=183).

Ethical Approval: Approval was obtained from the Health Care and Food, Ethics Panel at Cardiff Metropolitan University.

Purpose

The purpose of the study was to investigate knowledge of Campylobacter and determine self-reported domestic food-safety practices associated with the risk of Campylobacteriosis among consumers in the UK.

Results

A total of 183 UK consumers completed the questionnaire. Of the complete sample, 79% were female. The majority (48%) were employed full time, 24% were employed part time, 14% were students and 13% were unemployed.

Awareness of Campylobacter

The majority (80%) were aware Campylobacter was a bacteria, and 62% indicated awareness that Campylobacter was associated with raw chicken (Figure 1).

Cooking chicken thoroughly

Only 10% reported using a temperature probe to ensure food safety when cooking raw poultry. Many reported personal cooking experience, temperature to touch, changes in colour and texture were reliable methods to ensure adequate cooking (Figure 4).

Adhering to use by dates

As indicated in Figure 5, the majority (68%) reported that they ‘probably’ or ‘definitely’ would not prepare, cook and eat raw poultry with an expired ‘use by’ date.

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Avoiding cross-contamination

Practices associated with cross-contamination were reported, 10% reported to wash raw chicken. Only 49% reported to ‘always’ use separate boards for raw poultry and ready-to-eat (RTE) food, 26% reported the same board would be washed between use (Figure 6).

Personal hygiene

The study determined that the majority (91%) of participants reported to ‘always’ wash their hands using soap after handling raw chicken in the domestic kitchen.

Significance of study

- Although findings indicate public awareness regarding Campylobacter, food-safety malpractices were reported. However, it must be considered that self-reported data may not equate to consumer behaviour.
- Therefore, behavioural studies to observe consumer food-safety practices in the domestic environment relating to Campylobacter risk-reducing behaviours are required.
- Further studies are needed to investigate why consumers fail to adhere to recommended domestic food-safety practices.

References


Figures

Figure 1. Consumer awareness of food products associated with Campylobacter (n=183).

Figure 2. Press coverage of campylobacter outbreak linked to unpasteurised milk.

Figure 3. Consumer awareness of illness associated with Campylobacter (n=183).

Figure 4. Self-reported practices to ensure adequate cooking of chicken.

Figure 5. Reported likelihood of preparing, cooking and consuming raw poultry beyond the ‘use by’ date (n=183).

Figure 6. Self-reported shopping board use between raw poultry and RTE food (n=183).

Figure 7. Reported storage locations for raw poultry (n=183).

The majority (73%) reported raw chicken would be stored at the bottom of the refrigerator, whereas 20% indicated storage of raw poultry would be determined by available space (Figure 7). 17% also reported raw poultry would be stored next to RTE food.

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