Trainee dietitians' knowledge, attitudes and training experiences regarding the provision of food safety information for people living with HIV in Lebanon: A pilot study.

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Introduction

People living with HIV have an increased risk of developing foodborne illnesses due to compromised immunity¹, therefore domestic food safety practices are required to reduce the risk of foodborne illness. To enable this, patients need to be informed and enabled through provision of food safety information².

Dietitians are key gatekeepers that provide food-related information to patients, and are perceived as trusted sources for food safety information by patients³. Delivery of food safety advice by adequately trained dietitians can inform vulnerable patients of increased foodborne illness risks and enable riskreducing food safety practices⁴.

Gaps in Registered Dietitians food safety knowledge have been identified⁵. Dietitians need appropriate and adequate knowledge and skills to deliver effective food safety advice to vulnerable patients, which can be gained as trainee dietitians⁶.

Currently information detailing the training experiences and awareness of trainee dietitians in Lebanon regarding the need for food safety information for people living with HIV is lacking.

Purpose

The purpose of the study was to assess trainee dietitians' knowledge, attitudes and training regarding the provision of food safety information for people living with HIV in Lebanon.

Methods

Ethics approval was obtained from Cardiff Met. Health Care & Food Ethics Panel. Paper-based questionnaires to determine food safety cognition and training experiences were completed by trainee dietitians at the Modern University for Business and Science (MUBS), Beirut, Lebanon.

References

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Results

Food safety knowledge of trainee dietitians

Respondent demographic

Trainee dietitians (n=25) undertaking a Bachelor of Science in Nutrition and Dietetics at MUBS completed the questionnaire. All respondents were female and aged 18-29 years. Half were second year students and half were third year students, 53% studied full-time and 48% studied part-time.

Foodborne pathogens

The majority (64-92%) indicated awareness of common foodborne pathogens. Greatest reported awareness was for E. coli and Salmonella (92%) and associated foods (60-64%), only 36-52% were aware of food products associated with the other four most common foodborne pathogens (Figure 1).

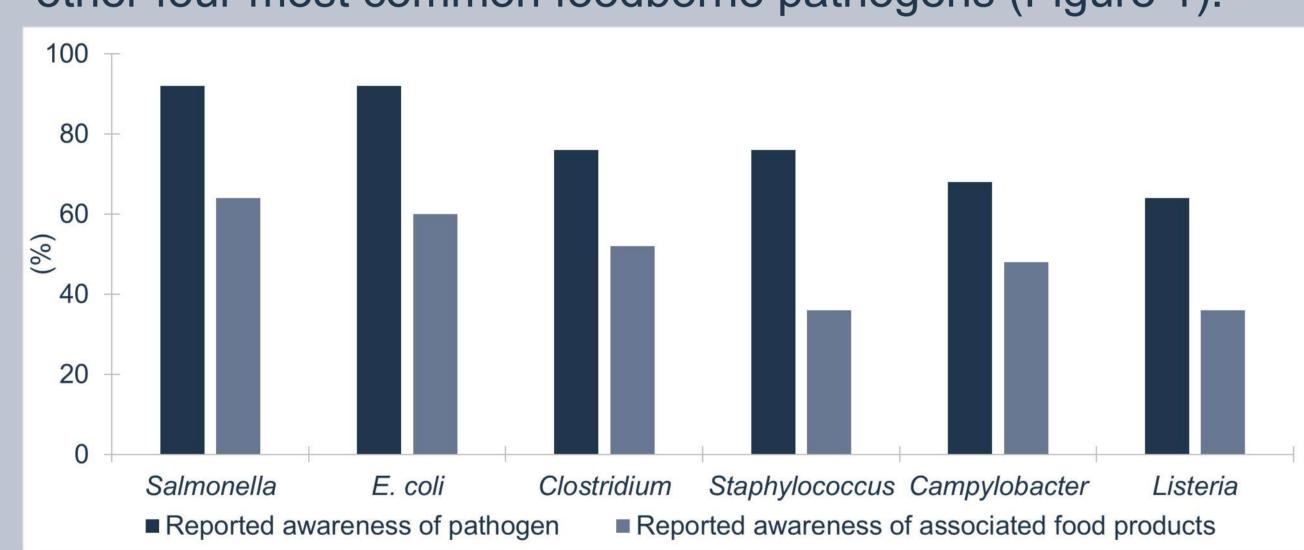


Figure 1 awareness of foodborne pathogens and associated food products.

Refrigeration

Positive attitudes were expressed towards checking refrigerator operating temperatures by 96% and 92% indicated knowledge of recommended refrigeration temperatures (≤5°C).

Cooking

Awareness of cooking adequacy were lacking. Although 100% believed they knew the temperature to be achieved when cooking meat/poultry to ensure food safety, only 24% stated the correct temperature (>75°C), 25% did not think a meat thermometer was required to determine cooking adequacy.

Handwashing

Although the vast majority were aware of the need to implement handwashing before handling ready-to-eat foods (100%) and after handling raw meat (96%), only 80% were identified the need to implement handwashing before commencing food preparation (Figure 2).

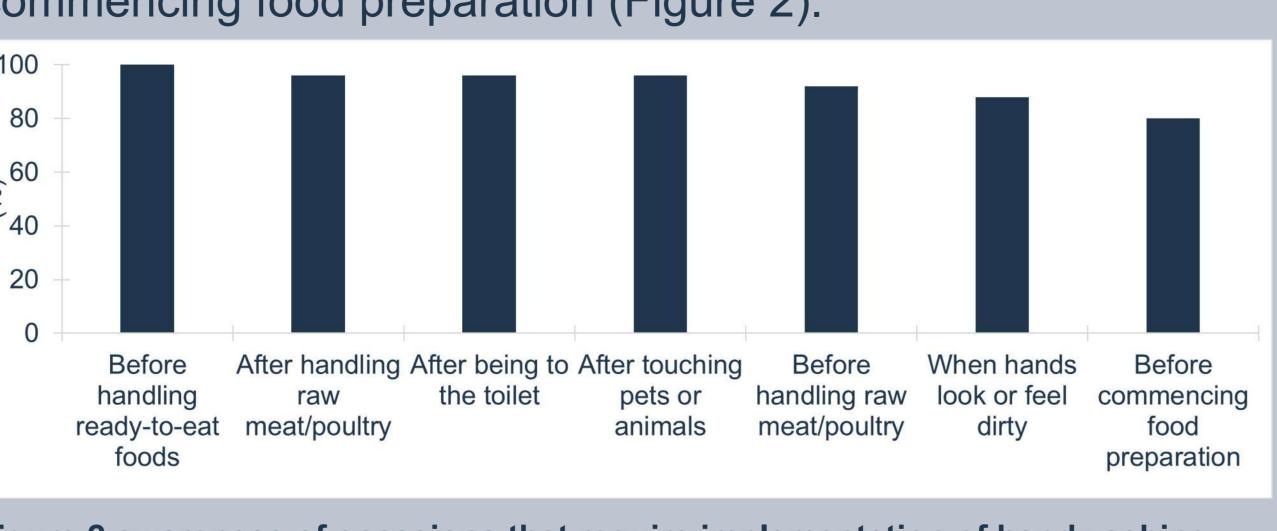


Figure 2 awareness of occasions that require implementation of handwashing.

Date labelling

Confusion regarding date labelling was indicated with only 32% aware the 'use by' date to be the best indicator of food safety whilst 40% believed it to be the 'best before end' date, and 28% indicated they did not know or believed all date labels to have the same meaning (see Figure 3).

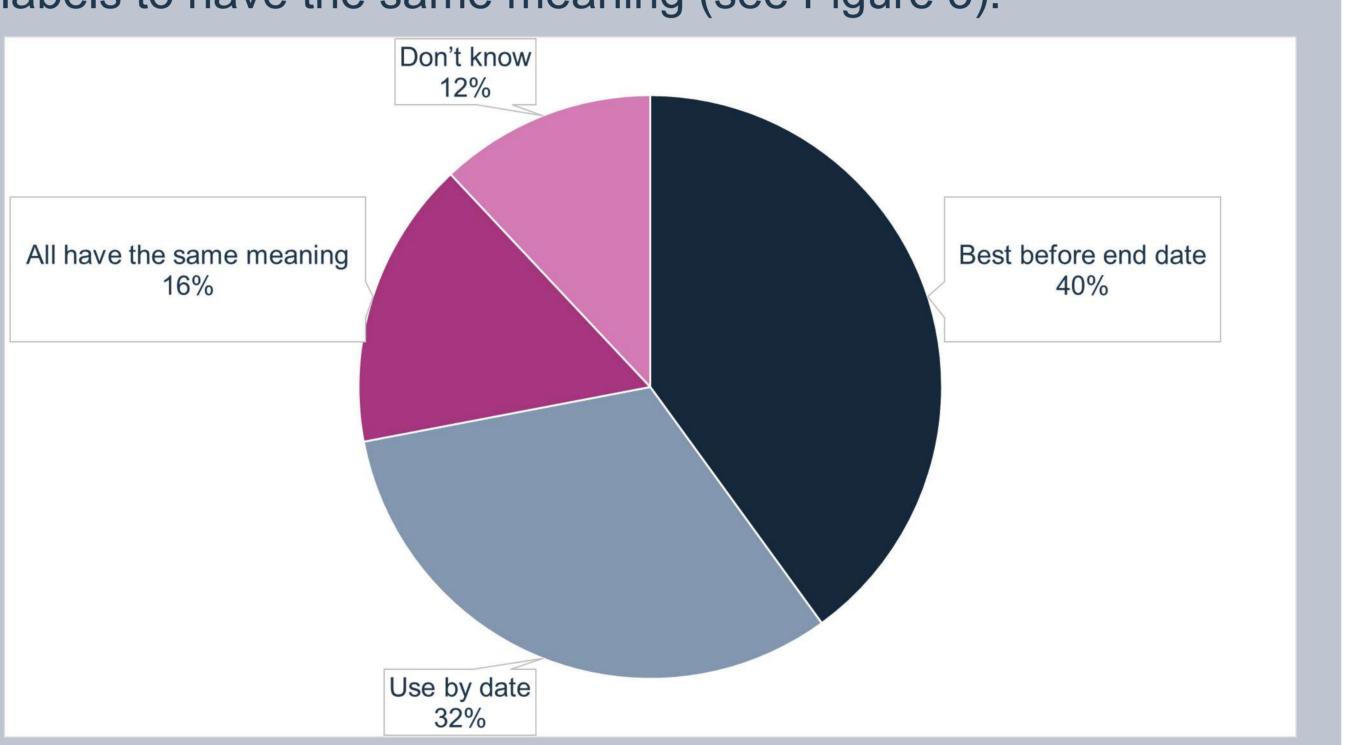


Figure 3 reported awareness of date labelling indicating food safety.

Storage duration

Awareness of appropriate storage duration of ready-to-eat food products associated with listeriosis was lacking, 44-84% were unaware of the recommendation to consume ready-toeat food products within two days of opening.

Cross-contamination

As indicated in Figure 4, although the majority were aware that practices such as failing to clean a shopping board after cutting raw chicken before preparing salad (92%) and using the same chopping board for raw and ready-to-eat food (92%) would increase the risk of cross-contamination. Awareness of other practices were lacking. Less than half (40%) were aware that washing raw meat increases the risk of crosscontamination, concernedly, 28% believed that failing to wash raw meat would increase the risk of cross-contamination.

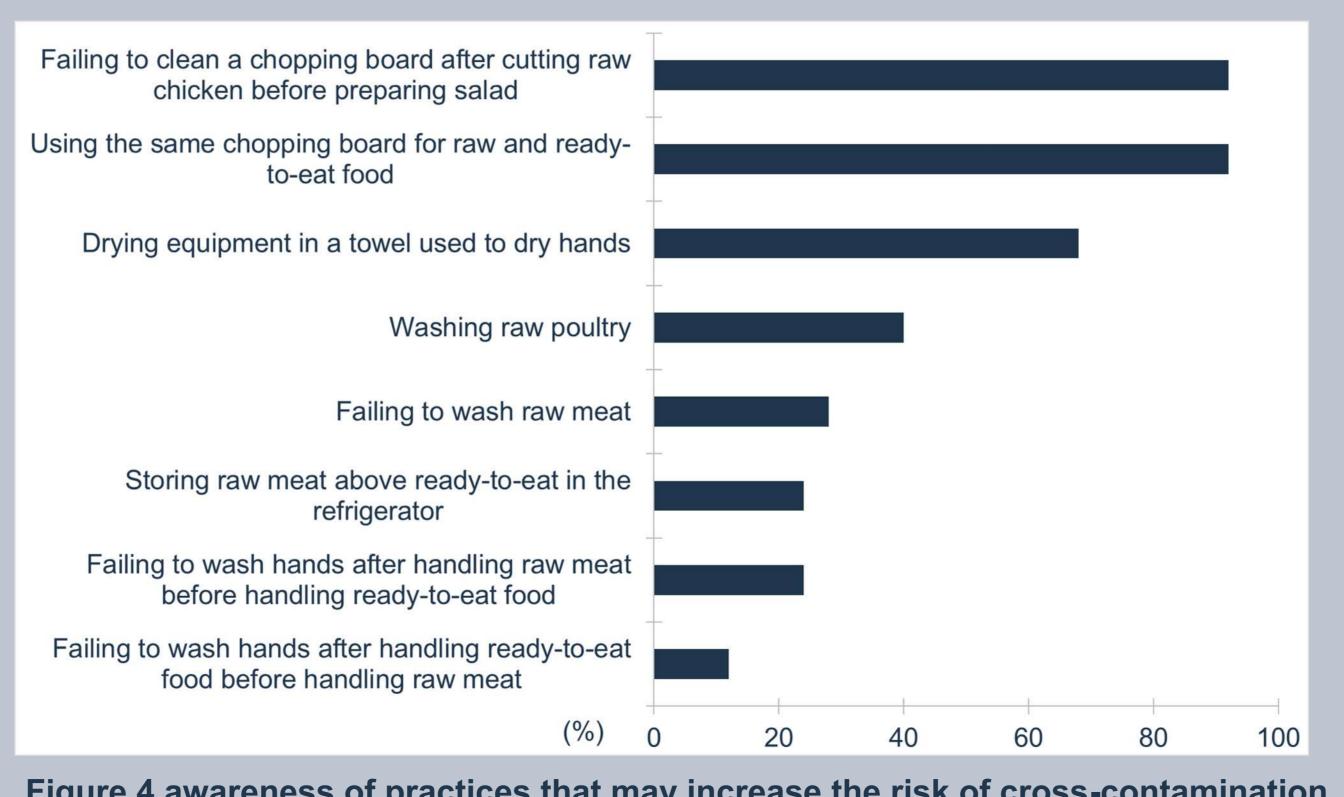


Figure 4 awareness of practices that may increase the risk of cross-contamination.

Attitudes towards food safety provision

Trainee dietitians recognised the domestic kitchen as a likely location to obtain a foodborne illness, however obtaining a foodborne illness from food consumed out of the home was perceived to be more likely. It was determined trainee dietitians were knowledgeable of HIV.

The majority had positive attitudes toward the role of dietitians in the provision of food safety information to immunosuppressed patients. Positive attitudes towards the role of dietitians in reducing the risk of foodborne infection among vulnerable patients were expressed (Figure 5).

- 91% were aware that people living with HIV have an increased risk of foodborne illness.
- 76% thought vulnerable patients needed to be given food safety
- 72% disagreed that the role of the dietitian is to only provide nutritional advice, not food safety information.
- 68% disagreed that the delivery of food safety information is not a priority for dietitians.
- 75% believed that dietitians should be responsible for providing food safety information for people living with HIV.

Figure 5 Attitudinal responses of trainee dietitians regarding food safety information provision.

Food safety training of trainee dietitians

All trainee dietitians reported having studied food safety as part of their degree course in modules such as 'food microbiology and parasitology', 'food hygiene' and 'food service management', however, many indicated the desire to learn more (Figure 6).

- 84% felt they had received sufficient food safety training during their degree to inform patients about food safety.
- 76% indicated they would be confident to give an immunocompromised patient food safety information.
- 72% believed they still had more to learn to enable them to inform patients about food safety in the home.
- applicable. 76% agreed a continual professional development (CPD) course

40% felt the food safety education they received was not clinically

 76% agreed that educating dietitians to inform vulnerable patient groups of the importance of food safety during may reduce the risk of foodborne illness.

would ensure dietitians are knowledgeable of food safety.

Figure 6 Attitudinal responses of trainee dietitians towards food safety training

Significance of study

Completion of the study has determined that although trainee dietitians in Lebanon were aware of HIV and attend lectures on food safety, knowledge of some key food safety recommendations were lacking. It must also be considered that knowledge of food safety does not equate to the ability to disseminate food safety advice to vulnerable patient groups such as people living with HIV.

Consequently, there is a need for specifically-targeted training for trainee dietitians to inform and enable vulnerable patients groups of food safety risks and risk reducing practices.

Need for further research

Completion of the study has identified the need for further

- There is a need for a comparison study with countries whereby different approaches are taken to educate trainee dietitians in food safety.
- Investigate the need for the development of a food safety CPD programme for registered dietitians to improve dissemination of food safety advice to vulnerable patients and healthcare providers.
- Design, develop and evaluate a standardised resources to support dietitians in the delivery of food safety information to vulnerable patients.

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