Introduction

Food safety in Lebanon is a major public health issue, potentially associated with the country’s unique public health infrastructure and political challenges. Somalia, Afghanistan and Lebanon are among the countries identified as having high levels of foodborne disease. The World Health Organisation (WHO) has identified foodborne disease as a major risk for mortality and morbidity. The demand for food safety and food quality management in Lebanon is increasing. In 2003, the Ministry of Public Health (MOPH) in Lebanon, in collaboration with the Food and Agriculture Organization (FAO), launched the national food safety strategy. This strategy reflects the government’s commitment to ensuring food safety and quality. The approach is holistic and multi-sectoral, involving the government, private sector, civil society, and international organizations. The strategy emphasizes the importance of capacity building, risk assessment, preventive measures, food traceability, and consumer education.

Purpose

The aim of the research was to determine and explore Lebanese consumers’ food safety knowledge, concerns and perceptions of food safety practices in Lebanon. The research aimed to identify gaps in existing research and to provide evidence-based recommendations for improving food safety in Lebanon. Specifically, the study sought to address the following research questions:

1. What are the food safety concerns of Lebanese consumers?
2. What is the level of food safety knowledge among Lebanese consumers?
3. What are the attitudes towards food safety practices among Lebanese consumers?
4. What are the barriers to food safety compliance among Lebanese consumers?

Methods

Recruitment: Consumers (aged 18+) who approached the MUBS Health Day stand at a shopping mall in Beirut, Lebanon on 9th September 2017 were invited to participate in the study.

Data Collection: Qualitative face-to-face interviews were undertaken with a piloted interview schedule to explore the food safety perceptions of consumers. Demographic data were collected and validated at the beginning of the interview.

Data analysis: Thematic analysis of data was conducted using NVivo to identify food safety perceptions.

Content analysis: A total of 43 Lebanese consumers took part in the study, 56% were male and 44% were female. The age range was 18-60 years. Thematic analysis of the interview responses identified areas of consumer food safety concerns that were unique to Lebanon. These key areas of concern related to:

- Food safety practices at home
- Food safety concerns outside of the home

Consumer food safety concerns unique to Lebanon

A common perception of consumers interviewed perceived personal risk of foodborne illness as being very low. This appeared to be due to the many and varied food safety concerns that were unique in Lebanon, as illustrated in Figure 1.

Food safety concerns at home

Participants reported concerns amongst the participants included electricity interruptions which were believed to be associated with unsafe food storage practices both at home and in shops and restaurants. Concerns regarding the accuracy and adherence of expiry dates on food products purchased from retail outlets, and issues around the quality and safety of water, were some of the main discussion points, indicating the unique food safety risks in Lebanon, as illustrated in Figure 1.

Food safety concerns outside of the home

Participants reported perceptions that restaurants fail to ensure supervision of staff and adherence of food safety guidelines. Participants expressed a wish for information on food safety to be provided by the Lebanese government and other related organisations.

Food safety concerns which are particularly unique to Lebanon

In Lebanon, we do not have electricity most of the time. Therefore, I store food in fridges because the electricity is not reliable and stored food safety concerns.

( Participant 33)

We can’t maintain food safety when there are electricity problems. I don’t know where my food is if there is no electricity.

( Participant 44)

The need for food safety information in Lebanon

The need for food safety information in Lebanon was identified as a significant concern. Participants indicated that they did not have access to information on food safety and that they felt they were not informed about how to protect their health. Participants expressed a wish for information on food safety to be provided by the Lebanese government and other related organisations.

( Participant 26)

Our media do not highlight this topic about the sanitation level in the restaurants and food service establishments.

( Participant 44)

We need more food safety information. We don’t know what we are doing.

( Participant 33)

The researchers wish to acknowledge the parents that participated in the questionnaire to allow completion of this study.

Results

The reported concerns regarding the electricity problems have particular impact on the ability of consumers to store food safely, which increases the risk of foodborne illness, particularly with the climate in Lebanon.

“People don’t care about food safety and food preparation. They eat whatever is available to them.”

(Participant 44)

Food safety concerns at home

Restaurants were cited by many as a likely place to contract a foodborne illness, with some participants reporting to avoiding outside-of-the-home dining altogether (Figure 3). Respondents perceived that restaurants fail to ensure supervision of staff and adherence of food safety guidelines.

“Always make sure the environment is clean and hygienic before choosing a restaurant.”

(Participant 15)

Food safety concerns outside of the home

There is a need for further research to determine Lebanese consumers’ food safety knowledge, concerns and perceptions of food safety practices in Lebanon. Further research is required to establish consumer food safety concerns in Lebanon.

“Many believed that eating at home is less likely to result in food poisoning.”

(Participant 44)

“Food safety concerns which are particularly unique to Lebanon include electricity shortages during the day.”

(Participant 33)

Food safety concerns which are particularly unique to Lebanon include electricity shortages during the day.

(Participant 33)

Conclusions

The need to improve food safety education in Lebanon

The need for food safety information in Lebanon

The need for food safety information in Lebanon was identified as a significant concern. Participants indicated that they did not have access to information on food safety and that they felt they were not informed about how to protect their health. Participants expressed a wish for information on food safety to be provided by the Lebanese government and other related organisations.

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Our media do not highlight this topic about the sanitation level in the restaurants and food service establishments.

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The need for food safety information in Lebanon

The research team wishes to acknowledge the participants that participated in the questionnaire to allow completion of this study.

Significance of study

Completion of this study has addressed a lack of current research regarding consumer food safety concerns in Lebanon. Consumers in Lebanon indicated different food safety concerns outside of the home compared with inside of the home.

Food safety concerns which are particularly unique to Lebanon

Food safety concerns which are particularly unique to Lebanon include electricity shortages during the day, foodborne illness to health. Research has established that food safety knowledge as well as attitude towards food safety practices influences behavior.

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