Food safety in Lebanon is a major public health issue (El Fadel et al., 2003), potentially associated with the countries’ unique public health infrastructure and political challenges regarding policy and strategy. Foodborne illness is reportedly widespread in Lebanon, but the absence of a proper disease reporting mechanism makes incidence difficult to quantify (El Fadel et al., 2003.).

The is a lack of routine inspection and control measures as set by The Lebanese Food Safety Authority to ensure compliance in advised food hygiene regulations (Ghada et al., 2014). Many food business's operate without a licence of regulation (Ministry of Tourism, 2013) and studies on food safety knowledge of food business owners has been found to be inadequate (Faour-Klingebiel et al., 2015). Other factors such as unstable power supply causing households and retail outlets to face electricity shortages throughout the day (Hassan et al., 2014) potentially impact on the safe storage of food.

Implementation of safe food preparation, storage and handling behaviours is critical to reduce the risk of foodborne illness to health. Research has established that food safety knowledge as well as attitude towards food safety practices influences behaviour (Redmond and Griffith, 2005).

A study by Hassan and Dimassi (2014) showed that Lebanon university students had low levels of food safety knowledge. Further research is required to establish consumer food safety concerns in Lebanon.

### Acknowledgements

Cardiff Met., the ZERO2FIVE Food Industry Centre and MUBS, wish to acknowledge the interview participants and members of the team responsible for attending the Health Day to facilitate data collection.

### References

An Exploration of Consumer Food Safety Concerns in Lebanon

Vicky J. Gould1, Ellen W. Evans2, Elizabeth C. Redmond2, Nisreen Alwan3 and Laura Hjeij3
1Cardiff School of Sport and Health Sciences, Cardiff Metropolitan University, Cardiff, United Kingdom.
2ZERO2FIVE Food Industry Centre, Cardiff Metropolitan University, Cardiff, United Kingdom.
3School of Health Sciences, Modern University for Business & Science (MUBS), Beirut, Lebanon.

*Corresponding author: vjgould@cardiffmet.ac.uk

Introduction

Food safety in Lebanon is a major public health issue (El Fadel et al., 2003), potentially associated with the country’s unique public health infrastructure and political challenges regarding policy and strategy. Foodborne illness is reportedly widespread in Lebanon, but the absence of a proper disease reporting mechanism makes incidence difficult to quantify (El Fadel et al., 2013.). There is a lack of routine inspection and control measures as set by The Lebanese Food Safety Authority to ensure compliance in advised food hygiene regulations (Ghadia et al., 2014). Many food businesses operate without a licence of regulation (Ministry of Tourism, 2013) and studies on food safety knowledge of food business owners has been found to be inadequate (Fauz-Klingbeil et al., 2015).

Other factors such as unstable power supply may cause households and retail outlets to face electricity shortages during the day (Hassan et al., 2014) having potential impact on the safe storage of food. Implementation of safe food preparation, storage and handling behaviour is critical to reduce the risk of foodborne illness to health. Research has established that food safety knowledge as well as attitude towards food safety practices influences behaviour (Redmond and Griffith, 2005).

A study by Hassan and Dimassi (2014), showed that Lebanese university students had low levels of food safety knowledge. Further research is required to establish consumer food safety concerns in Lebanon.

Purpose

The aim of the research was to determine and explore Lebanese consumers’ risk perceptions, concerns and perceived adequacy of food safety information.

Methods

Recruitment: Consumers (aged >18 years) 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 captured and informed consent was obtained prior to interviews.

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

Ethical Approval: Approval was obtained from the Health Care and Food, Ethics Panel at Cardiff Met. (reference no: 9299) and the Ethics Panel at MUBS, Lebanon.

Results

A total of 43 Lebanese consumers took part in the study, 58% were male and 42% were female. The age range was between 18-69 years. Thematic analysis of the interview transcripts identified areas of consumer food safety concerns that were unique to Lebanon, and two key areas of concern which related to:

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

Furthermore, completion of the study also identified the need for food safety information for consumers.

Food safety concerns at home

As indicated in figure 2, many consumers indicated they believed that foodborne illness was less likely to occur from food prepared in the home than when eating out. Many believed considered themselves to follow good hygiene and sufficient food safety practices to prevent the incidence of foodborne illness.

Figure 2. Consumer food safety concerns when preparing food at home

Food safety concerns outside of the home

Restaurants were cited by many consumers as a very likely place to contract a foodborne illness, with some participants reporting to avoiding eating outside of the home altogether (Figure 3). Respondents perceived that restaurants fail to ensure supervision of staff and adherence of food safety guidelines. Furthermore, concerns regarding hygiene standards were expressed.

Figure 3. Consumer food safety concerns when eating outside of the home

The need for food safety information

Participants frequently indicated a considerable need for food safety information (Figure 4). A number of respondents believed that the provision of food safety information was very important to enable them to protect their health. Some participants expressed the wish for information on food safety to be provided by the Lebanese government and others felt it should be provided via the media or other sources.

Having access to food safety information would enable consumers to be able to consider whether their own food safety behaviors should changed (Redmond and Griffith, 2005).

Figure 4. Perceived need for consumer food safety education in Lebanon

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 including electricity disruptions and concerns regarding the accuracy and adherence of expiry dates on food products have been identified.
- Identified consumer concerns require consideration when developing future consumer training, education and prevention strategies.
- There is a need for further research to determine Lebanese consumers cognitive and behavioural influences related to food preparation/storage as well as food-safety education.

Acknowledgements

Cardiff Met., the ZERO2FIVE Food Industry Centre and MUBS, wish to acknowledge the interview participants and members of the team responsible for attending the Health Day to facilitate data collection.

References