

Cabin Crew HACCP Training: A Qualitative Study

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Introduction

On-board, cabin crew handle high-risk foods, including, meat and fish, served hot or cold pre-prepared and plated cold meat and fish, canapés and special meals. These food handling-related duties, unless carefully and critically practiced, may lead to microbiological, chemical, physical and allergic hazards^{1,4}. Therefore, airline meals are prepared in centralised catering units employing hazard analysis critical control point (HACCP). For HACCP to be implemented efficiently in in-flight catering, food-hygiene/safety training is required for all food-handlers and supervisors^{1,2}.

Consequently, a deficiency of food safety and HACCP-related training for all food handlers in flight catering supply chain is critical in relation to food-poisoning outbreaks³. Thus cabin crew need be trained effectively and explicitly regarding HACCP principles to enable application/implementation of controls to minimise potential food-associated risks in 'on-board' food production/consumption¹⁻⁴. To-date, limited research has been undertaken in this field.

Aim

The aim of this study was to explore the extent of HACCP and food safety training for cabin crew within food safety/hygiene training programmes provided by airlines.

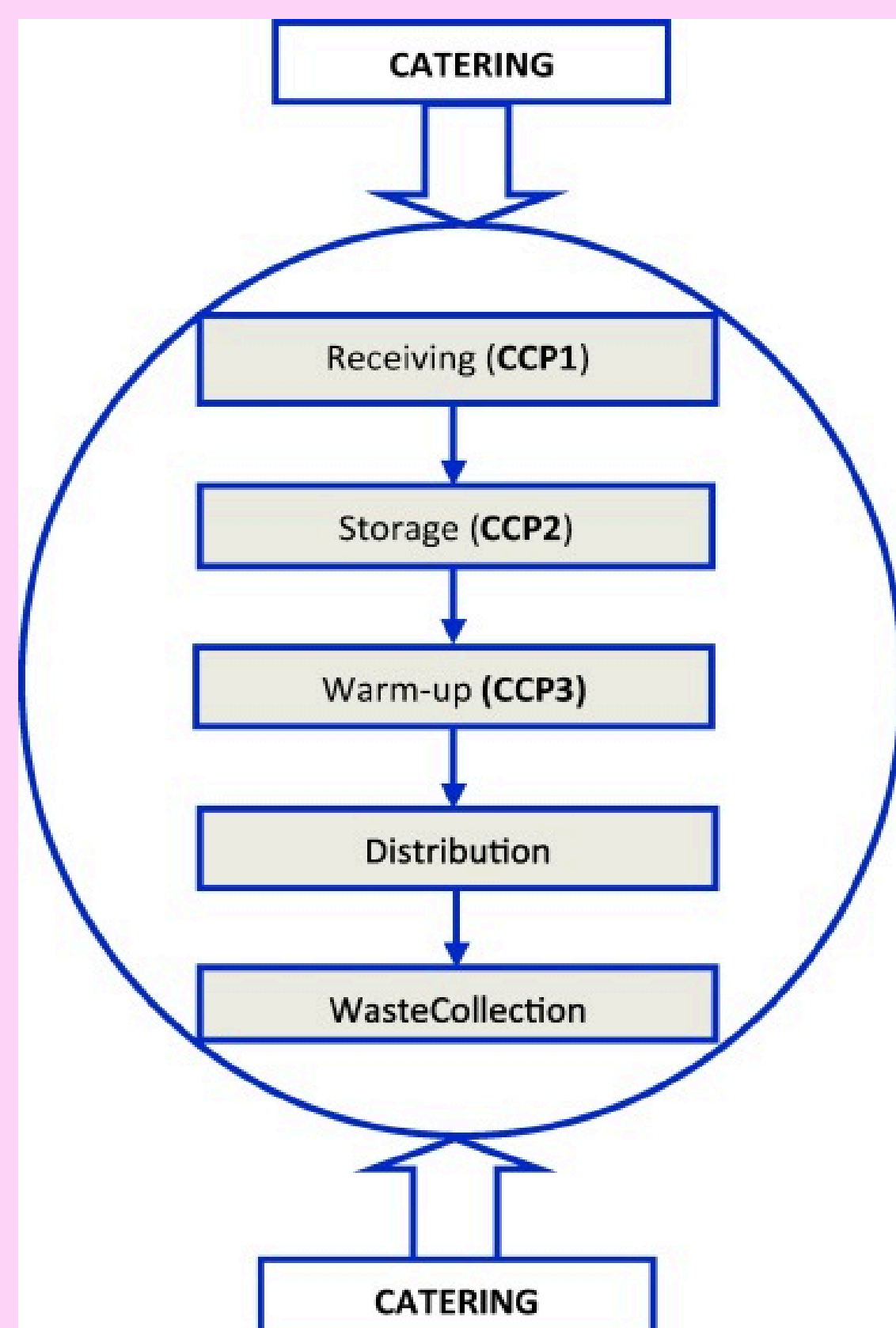
Methods

- Sampling and recruitment:** A purposive sampling technique alongside a snowballing technique was adopted for sampling and recruitment of 26 respondents (including cabin crew managers, training managers, and supervisors) from 20 international airlines from UK, Africa, USA, Europe and Middle East.
- In depth interviews:** Semi-structured interviews (n=20) were conducted with to understand the HACCP implementation within on-board food-handling. Fourteen individual interviews and six interviews (including two respondents) were conducted (from each of six airlines).
- Interview content:** Interviews determined on-board food handling steps; inclusion of HACCP in food safety training and cabin crew food safety.
- Ethical considerations:** Prior to implementation of this study all methods and relevant documentation including interview schedules, introductory letters, participant information sheet, consent form were approved by the Cardiff Met Healthcare and Food Research Ethics Committee (Approval reference 3850).
- Analysis of data:** Interview transcriptions were coded using NVIVO9. Data were analysed using a qualitative content analysis approach. This technique is a widely recognised qualitative analysis tool that facilitates categorisation/identification of themes within the data.

Results

- Respondent profile:** The majority of respondents (69%) were male; 62% were aged between 41-47 years, and job roles included managers (42%), supervisors (42%) and cabin crew trainers (16%).
- Cabin crew on-board food-handling:** Once on-board, meals and related items were reported become the responsibility of cabin crew. **Figure 1** illustrates the generic steps of handling meals on-board (including critical control points -- CCPs).
- HACCP implementation:** Overall, inclusion of HACCP training in cabin crew food safety training was variable and insufficient. The majority (60%) of airlines reportedly did not include HACCP training for cabin crew at any level, with some study respondents unaware of HACCP acronym meaning: "what is HACCP?". A quarter (25%) of airlines included HACCP concepts such as control points and documentation which were reportedly included in training, however, procedural implementation was reportedly not included 'I can say that it may be implicitly applied, but not in explicitly applied'. Only 15% of airlines reportedly included explicit HACCP training for cabin crew.

Figure 1. On-board food handling steps and related critical control points.



Cabin crew food safety training

Qualitative data indicating the extent and levels of cabin crew training and a food safety / HACCP training needs analysis are presented below. Overall, food safety HACCP training appears to be lacking and reportedly not applied by many airlines.

Extent of Cabin Crew Food Safety Training

- Most (92%) respondents acknowledged that the majority (90%) of airlines have a range of CCFST, for example:

"...we train our cabin crew on food safety and how they can avoid food poisoning occurrence..." Cabin Safety Supervisor A1SCSS

- Conversely, two airlines (A8 and A10) did not include food safety and hygiene training as part of the airline policy:

"we do not consider such training for our cabin crew" (A8CCTM); "we do not have specific training on food safety" (A10CCS).

- A Cabin Safety Director and a Supervisor of Cabin Safety (A1DCS / A1SCSS) suggested that it is not only cabin crew who should be trained/instructed on food safety, but also cockpit crew. They reported cockpit crew training had taken place after a food poisoning incident occurred when a Captain and a First Officer left tuna sandwiches at ambient temperature in a cockpit for two hours before consumption resulting in suspected food poisoning.

Levels of Cabin Crew Food Safety Training

- All respondents (n=24) from airlines with cabin crew food safety training (n=18) reported that their airlines did not consider the different employment roles when training cabin crew on food safety.
- Airlines reportedly trained all their cabin crew at the same level of food safety regardless "...their position or which fleet or class they are working on" (A2RDLCLA1).

"All cabin crew are trained on the same level without discrimination or customization." Cabin Crew Training Supervisor (A6CCTS)

"... all of our cabin crew have specific roles if they are senior cabin crew, but all of them are trained in exactly the same way with regards to food safety, we do not have any specific extra modules..." Cabin Crew Training Supervisor (A2RDLCLA1).

Cabin Crew Food Safety Training Needs Analysis

- A Training Needs Analysis (TNA) is the first step of any training cycle and plays a significant role in training effectiveness and improvement. Most respondents (75%) from airlines with cabin crew food safety training (n=18) indicated "... analysing all cabin crew training needs" (A9CCST1).
- Further findings indicate this may not be the case when it comes to food safety training, as most of airlines reportedly with CCFST (78%), reportedly did not consider TNA for this type of training. This was indicated by many respondents, for example:

"No TNA for food safety as training is generic" (A7MCSTIS).

"... not specifically in the case of food safety training" (A15CCM)

- Respondents from two airlines (A9 and A12) explicitly acknowledged TNA in relation to cabin crew food safety training by reporting use of pre-training tests and documentation analysis (e.g. training records) to analyse such training needs – for example:

"before we start the training season we mark our target, what do we want to achieve, improve. Based on that, we make our training needs analysis" (A9CCST1)

- Respondents indicated that most participating airlines did not analyse cabin crew food safety training needs, this may affect negatively the levels and effectiveness of food safety training for different cabin crew roles.

Conclusions

- It can be concluded that while some airlines consider HACCP, explicitly or implicitly, in cabin crew food safety training, it is not totally applied on-board the aircraft as "In-flight HACCP".
- Absence of food safety and HACCP training with cabin crew may result in failure to control on-board food safety hazards required to reduce the risk of foodborne disease.

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