

Factors Influencing Food Safety Compliance in Home Food Production Businesses

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Introduction

Food safety compliance with legislation and regulations (Mensah and Julien, 2011) is required for all sizes of food manufacturing and production businesses to reduce the risk of foodborne illness among consumers. Implementation of food safety systems including hazard analysis critical control point (HACCP) as part of a food safety management system (FSMS) can be challenging in small food businesses such as those based in the domestic setting; this may be caused by lack of knowledge, experience and available information sources (Yapp and Fairman, 2006). Extensive food safety research has been undertaken in the domestic environment relating to consumer food safety (Redmond and Griffith, 2003; Milton and Mullan, 2010). However, limited research has investigated food safety issues associated with home food production businesses (HFPBs).

In recent years, market growth of HFPBs has been reported (Shaw, 2021). Prior to food production, HFPBs require Environmental Health (EH) approval/registration, including demonstrated understanding of food hygiene principles and a HACCP plan. To date, limited research has explored factors that may influence compliance relating to HACCP implementation and FSMS in HFPBs.

Aim

This study explored EH-Practitioners regulatory requirements, processes and information provision in HFPBs in conjunction with reported food safety compliance/non-compliances.

Methods

- Interview schedule development:** A review of literature and Local Authority (LA) / EH documentation and data was reviewed to inform development of an interview schedule including four topics associated with food safety: regulatory processes, opinions concerning business awareness of food safety, observed conformances and non-conformances and information provision.
- Sample and data collection:** UK based EH-Practitioners were recruited using a convenience sampling method. Semi-structured, in-depth interviews (n=13), lasting ~30minutes, were conducted using a face-to-face or via telephone approach.
- Data analysis:** A content analysis (Cohen *et al.* 2007) of transcribed interviews was undertaken using NVivo 11 (QSR International).

This research received ethical approval from the Cardiff Metropolitan University Health Care and Food Ethics Panel (Reference UG-277).

References

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Results and Discussion

Regulatory processes

- In conjunction with a review of literature and LA documentation interviews clarified and established that LA registration is required for all HFPBs prior to supply of home food produced food for business purposes. This is followed by **“an arranged, onsite inspection”** to assess food hygiene, structure and management commitment compliance to enable achievement of a Food Hygiene Rating (Husain and Morris, 2010) (see EHP7).
- As expected, EHPs reported a consistent regulatory approach for HFPB approval/registration; however, challenges relating to this were identified including a lack of defined continuity **“when a hobby becomes a business could be a grey area”**.

HFPB awareness of food safety requirements

- EHPs reported that most HFPBs lacked awareness about the registration / approval processes as well as **“lack of awareness of food safety problems [by HFMBs]”**.
- EHPs indicated HFPB's lacked experience in food industry and legal requirements, food safety and HACCP requirements (see EHP3, EHP5).

HFPB food safety compliance

- “Over-familiarity with the setting”** and other key factors influenced non-compliances which reportedly, commonly included inadequate knowledge of HACCP, inadequate paperwork and training and poor temperature control.
- Positioning/availability of domestic facilities reportedly made **“domestic segregation challenging”** with one EH-practitioner indicating **“the use of a domestic kitchen for commercial purposes isn't always ideal”**.

Provision of food safety information

- EH information provision was perceived to be **“sufficient”** and usually provided prior to company registration. Variable EH experiences were provided to further understand HFPB food safety compliance.

EHPs provided many positive examples of HFPB compliance and operator willingness to learn and comply with food safety requirements. Table 1 illustrates EHP observations of common non-compliances, suggesting areas of focus for improved information provision with rationale for the need for compliance.

Table 1. EHP reported observations of HFPB non-compliances according for FHR components.

Hygiene	Structure	Confidence in Management
<i>“...cluttered surfaces, utensils, ornaments, plants etc, laundry being done at same time as food preparation, being sick of looking after sick children and having orders to complete and not following 48-hour clear rule from NHS; lack of fridge space for temperature control and understanding or raw and ready to eat in fridge”</i> (EHP10)	<i>“..the structure in the home, single sink, lack of space to designate a raw area (that would have to be used for domestic and business) most domestic kitchens would operate sperate times for raw food preparation and dual use of the home kitchen with domestic uses – laundry, pets, children”</i> (EHP5)	<i>“No HACCP, incomplete HACCP, no sampling to back up use by dates / guessing use by dates based on similar products”</i> (EHP5) <i>“Avoidance of communication with the department, only find out about business through other means and hard to track down. Little or no knowledge and excuses why training can't be done”</i> (EHP10)

“Most home food businesses are lower risk and only inspected every 18 months or longer. Following the initial inspection, further phone or email discussions will continue to support business with labelling, HACCP or other food advice” (EHP7).

“some home caterers that write their own food safety management systems and they may be missing particular process steps in the operation so ...they just need to add that in” (EHP3).

“some [HFPB's have] no knowledge in the first place about HACCP, therefore have no written policies or procedures, so a lack of understanding of cross contamination, use of British standards chemicals, training, hygiene and HACCP” (EHP5).

“[HFPB operators] are quite often naïve about what they can practically do in their home kitchen, and have not thoroughly identified the hazards until a food safety officer has discussed their business idea with them and highlighted any concerns” (EHP6).

“we have our own advice and try to give them the most information available to achieve a high score” (EHP2).

Significance

- This study has enabled increased understanding of HFPB regulatory processes and identified potential barriers for food safety regulatory compliance.
- Data will contribute to the development of targeted information materials to potentially improve HFPB FSMS awareness, EH support and food safety compliance.



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