

A qualitative exploration of consumers' perceptions, attitudes and use of smart devices while preparing food in the domestic kitchen

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Foodborne disease (FBD) remains a significant public health threat and cause for concern, with the domestic kitchen reported as a common origin of FBD⁽¹⁾. However, consumers exhibit optimistic bias and believe the home is unlikely to contribute to FBD⁽¹⁾. Furthermore, consumer intentions and knowledge about food safety practices in the kitchen are not translated into implementing recommended behaviours^(1,2). SMART devices have become an indispensable component of our lives, with a recent study reporting that half of consumers used electronic devices while cooking⁽³⁾. Studies in clinical settings have reported that smart devices harbour bacteria⁽⁴⁾, therefore, could contribute to cross-contamination in the domestic kitchen. This study aims to understand consumers' use of devices in the kitchen and their perceptions and attitudes around potential safety hazards associated with their use.

An experienced researcher (FL) conducted the in-person focus group discussions with consumers in May and June 2022. Convenience sampling was used, and participants were recruited via, email threads and local advertisements. Video vignettes were included in the topic guide and shown to participants in a randomised order (one video illustrating good practices and the other illustrating poor practices). Ethical approval was obtained (Ref no: MHLS 22_31), and participants received a £50/€60 cash incentive as gratitude. Focus groups were recorded and transcribed verbatim. An inductive thematic analysis will be conducted by two researchers (FL, CMK).

Six focus groups were conducted on the island of Ireland (n = 56). Two groups were completed in Northern Ireland (n = 17), and four in the Republic of Ireland (n = 39). The mean age was 44.82 years (SD = 15.59), with 80% (n = 45) of participants indicating that they use smart devices during food preparation. Participants used a wide variety of devices during meal preparation, primarily to follow recipes and listen to music. After watching the video vignettes, participants were able to distinguish the difference and easily identify good hygiene practices. Participants suggested that food poisoning is unlikely to occur at home. Furthermore, most participants were aware that smart devices could harbour bacteria due to their shared use and movement throughout and within the home. Participants credited their increased awareness to the COVID-19 pandemic and generally followed better hygiene practices as a result. However, some participants indicated that they would prefer not to know about the potential hazards of these devices and did not consider them any more of a risk than other common cross-contamination vehicles such as door handles.

SMART devices are used during meal preparation in the kitchen for various reasons. Participants demonstrated awareness of good hygiene practices. Furthermore, participants demonstrated acceptable levels of awareness of the potential risks associated with their use in the kitchen, citing the COVID-19 pandemic as a catalyst for this increased awareness and risks associated with cross-contamination.

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References

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