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FOOD SIMPLEX: NEW FOOD SAFETY METHODOLOGY FOR MICROBIAL SAFER MEALS

The microbiological contamination of meals by catering systems is one of the main parameters that must be assessed to ensure the food safety. Foods can be contaminated by saprophytic microorganisms (total mesophilic aerobes), as well as by spoilage and pathogens (e.g. *Salmonella spp*, *Listeria monocytogenes*, *Escherichia coli* and *Staphylococcus aureus*). Such contamination depends on the quality of the raw materials and on the application of good manufacturing practices. The aim of this study is to assess the application of new food safety methodology (Food Simplex) in Portuguese catering establishments through audit data and microbiological sampling of the meals produced by the restaurants. The ready-to-eat food samples presented regarding the total mesophilic aerobes a positive change from a satisfactory condition of 61.8% to 85.3%; *Listeria monocytogenes* a significant and positive evolution (p -value<0.0001) and for *E. coli*, Coagulase-positive staphylococci and *Salmonella* all the food samples presented satisfactory results. At the end of the study period, observed a decrease in microbial populations of examined samples and an improvement of the audit results which indicated that the Food Simplex methodology improved the food safety conditions of the restaurants and improved the knowledge for food handlers which represent a critical control point.

Biography

Ana Lucia Baltazar is the Head of Dietetics and Nutrition Department at Coimbra Health School. She is a Senior Lecturer and holds a BSc (Hons) in Dietetics, a Master in Health and Safety at Work and is Specialist in Nutrition and Dietetics. She teaches food toxicology and food technology. She is Post-graduated in auditors in HACCP and in Health and Safety at Work. She is a Member of the Working Groups Microbiological Occurrence in the Food Chain, Food toxoinfections and Effective Communication in Food at National Institute of Health Dr Ricardo Jorge, Lisbon, Portugal. She is a PhD Student in Food Sciences at University of Valencia-Spain.

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