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Microbial safety of food served in selected secondary boarding schools in Ghana

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The aim of the study was to identify types and loads of microorganisms present in the food served to students in seven secondary schools in Ho in the Volta Region of Ghana. The most frequently served foods (boiled rice and kenkey) were analyzed for microbial quality. Portions of food were diluted at 1:10. Serial dilution and pour plate method was used to determine microorganisms present; total bacteria counts; counts of *Enterobacteriaceae*, *Staphylococcus aureus* and *Bacillus cereus*. Bacterial colonies were counted after appropriate incubation periods. Dilutions with 30-300 colonies were selected and counted. The study revealed that for cooked rice, the *Enterobacteriaceae* counts ranged from 15-44 CFU/g; *Staphylococcus aureus* ranged from 13-38 CFU/g and *Bacillus cereus* from 2-31CFU/g. In the case of kenkey *Enterobacteriaceae*, counts ranged from 84-102 CFU/g; *Staphylococcus aureus* from 80-99 CFU/g and *Bacillus cereus* from 71-94 CFU/g. The count for each species was within the safe limits 25-250 CFU/g. Adherence to strict hygienic practices and professional competence in staff were observed as key to low levels of microbial colonies found in the foods. The foods served to students in the secondary boarding schools could be considered safe to be eaten by the students.

Biography

P G Owusu-Darko has completed her PhD at the Strathclyde Institute of Pharmacy and Biomedical Sciences, University of Strathclyde in Glasgow, Scotland, UK. She is the Director of the Graduate School of Kumasi Polytechnic in Ghana, having served as the Director for International Affairs for the same Polytechnic for four years. She is an accredited presenter for the Royal Environmental Health Institute of Scotland, a food quality standards organization. She has published several papers in reputed journals and has been serving as an Editorial Board Member of repute.

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