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An awareness survey on the presence and implications of acrylamide in West African foods and the extent of consumption of such foods

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Acrylamide is a neurotoxic, genotoxic and potentially carcinogenic compound, found in a wide range of foods, particularly heat-treated carbohydrate-rich foods. Many such foods and food products of West African origin are very popular within the community and beyond but, there is hardly any data on the awareness of the presence and the potential adverse health effects of acrylamide in foods. Equally, the data on the consumption rate does not exist. Thus, the study aimed to evaluate the level of awareness of acrylamide in foods, its toxicity and consumption of heat-treated West African foods; bread, chin-chin, kokoro, doughnut, pancake, fish roll and meat pie, through an online survey questionnaire. Responses were received from 1103 individuals from seven West African countries and the United Kingdom (UK), with 89.5% and 10.5% responses, respectively. Generally, the survey indicated that 71.57% of the respondents were not aware of the occurrence of acrylamide in heat-processed foods and 98.04% were unaware of the possible adverse health impact. The study indicated that the percentage of participants cognizant of the link between chemical hazards and heat-treatment of foods for GHN, NGR and UK are 2.1, 7.8 and 5.2%, respectively. The percentage of respondents informed on the presence and deleterious effects of N-nitrosamines, furans and PAH for GHN, NGR and UK were 1.3, 2.9 and 1.7%, respectively. Only 0.6 and 1.7% of participants from NGR and UK affirmatively responded to having knowledge of the existence and ill effects of acrylamide. The survey also showed that, 81.0% of the participants consume baked WA foods on weekly bases and that the consumption trend is similar for consumers in Nigeria, Ghana and amongst the West African population in the UK. These results provide a strong justification for further awareness studies supported by relevant analytical data.

Biography

Timothy O Akinosun is an Alumnus of London South Bank University (LSBU), who has completed his MSc in Food Safety and Control, in 2014. He worked as a Lecturer and Researcher at Joseph Ayo Babalola University, Nigeria, in between the year 2014 and 2016. Currently, he is a PhD Research student at the School of Applied Sciences, Division of Food Science, LSBU. He is also working as an hourly paid Lecturer at the same University.

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