



Application of Food Choice Questionnaires to Determine Consumer Attitudes Towards Novel Plant-Based Foods

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Abstract

Introduction: Products made from food-to-food fortified and/or biofortified indigenous African crops (e.g., orange flesh sweet potato) and/or emerging technologies are used to improve the nutritional status of consumers. Utilization of such practices to improve consumer health can have advantages all along the value chain.

Food neophobia, reluctance to eat or avoidance of new foods, is considered an important determinant of food choice behaviour. Consumer attitudes towards nutritionally optimised traditional food staples may affect acceptance and expectations negatively, but this may be counteracted by providing information on the nutritional benefits. Various research studies showed greater expected and actual liking for novel/unfamiliar foods in persons with low neophobia scores.

Previous studies have found that the diets of neophobic individuals display insufficient intake of protein, desirable fatty acids, and micronutrients (Siegrist, Hartmann and Keller, 2013). The more neophobic an individual is, the less likely they are to consume vegetables, salads, poultry, and fish. The neophobic trait has been associated with reduced dietary quality and several health-related biomarkers (Sarin *et al.*, 2019). This study aimed to determine whether food neophobia in young consumers affects expected liking and/or acceptance of food-to-food and biofortified food products.

Methodology: The research involved three phases of data collection.

1. Determining the food neophobia scores of young consumers using the Africa food neophobia scale
2. Determining the food technology neophobia scores of young consumers using Cox & Evans food technology neophobia scale
3. Correlation of the neophobia scores with expected liking for nutritionally optimised food staples, and selected fruit & vegetables.

Results and Discussion: Education was found to have a significant impact on food neophobia, as supported by past studies (Cox & Evans, 2008; Guzek *et al.*, 2018). We can therefore infer that there is a strong inverse correlation between food neophobia and the level of education. Furthermore, we found

that young consumers from rural or lower income households tend to be more susceptible to food neophobia, as also demonstrated by Muhammed *et al.*, 2015.

Conclusions: Education, socio-economic status as well as geographical area should be considered when introducing novel plant-based foods, in order to navigate and address food neophobia.

Biography: Clarissa van Heerden

Clarissa van Heerden is a Food Science Honours student at the University of Pretoria. Her research project was part of the InnoFood Africa project and was centered around the consumer acceptance of plant-based foods constructed through biofortification and/or food-to-food fortification. The plant-based foods are aimed at combating malnutrition by increasing the nutritional status of the consumer.