



Food choice motives and intention to adopt personalised nutrition

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Nutrigenomics is defined as the study of gene expression in relation to food and nutrition⁽¹⁾. Personalised nutrition, however, encompasses dietary advice based on dietary, lifestyle, phenotypic and genotypic data⁽²⁾. Motives underlying the selection of food are hypothesised to serve as barriers to, and facilitators of, adoption of personalised nutrition⁽³⁾. The research presented here aimed to, therefore, explore food choice motives in relation to the intended uptake of personalised nutrition by the general public.

Findings from a previous qualitative study⁽⁴⁾ have been used to develop a questionnaire with which to probe consumer acceptance of personalised nutrition. Questionnaire items included the food choice questionnaire (FCQ)⁽⁵⁾ and intention to adopt personalised nutrition in the future⁽⁶⁾. A representative sample from the UK (n = 1061) and Ireland (n = 1020), quota sampled based on age, sex, education level and region were surveyed on-line. Multi-group confirmatory factor analysis confirmed that the original 36-items from the 9-factor FCQ-model⁽⁵⁾ converged into the same 9-factors as the original scale. Food choice motives were then entered into multiple regression analysis as predictors of intention controlling for country, age, gender, and education level.

Multiple regression analysis predicting intention to adopt personalised nutrition from food choice motives (N = 2081).

Food choice motives	B	Std. Error	Beta	P-value
Health	0.20	0.03	0.18	<0.001
Mood	0.10	0.03	0.10	<0.001
Convenience	0.06	0.02	0.06	0.01
Sensory Appeal	-0.08	0.03	-0.07	<0.001
Natural Content	0.06	0.02	0.07	0.01
Price	-0.05	0.02	-0.05	0.02
Weight Control	0.16	0.02	0.19	<0.001
Familiarity	0.02	0.02	0.02	0.48
Ethical Concern	0.06	0.02	0.07	<0.001

Significance at $P < 0.05$; Adjusted $R^2 = 0.26$.

Results indicated that food choice motives explained 21.9% of the variance in intention to adopt personalised nutrition, after country, age, gender, and education level had been controlled (R squared change = 0.219, F change (9, 2064) = 68.78, $p < 0.001$). The model shows that 8 of the 9 food choice motives significantly predicted intention to adopt personalised nutrition. Individuals motivated by health, mood, convenience, natural content, weight control, ethical concern, or scoring lower on sensory appeal and price may be more likely to adopt personalised nutrition. Personalised nutrition providers, therefore, may benefit from taking into consideration the underlying food choice determinants of potential consumers.

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