



## Exploring the Consumption of Eggs in Older Adults: a Questionnaire Study

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Previous research suggests that perceived convenience, value for money, and perishability are important predictors of intakes of protein-rich foods in older adults<sup>(1)</sup>. Eggs are a nutrient dense, high quality source of protein<sup>(2)</sup>, and compared to other protein rich foods, are easy to cook, of long shelf life, and low cost; and so may be of help in increasing protein intakes. To develop strategies to increase egg and protein intake<sup>(3)</sup>, however, a thorough understanding of the barriers and facilitators to egg intakes in older adults is key.

Reasons for eating or not eating eggs in adults aged 55 years and older were identified in a focus group study<sup>(4)</sup> and then used in a structured questionnaire assessing: frequency of habitual egg intake, frequency of habitual intake of other protein-rich foods, agreement or disagreement with 76 statements on the reasons for eating/not eating eggs, and various demographic and lifestyle factors. The questionnaire was sent out to a National sample of 1065 adults. Responses from 205 participants (96 female, aged 55–80+ years, from across the UK) were included in analyses. A Principal Component Analysis on the 76 statements on egg intake generated 21 components, which were then analysed for their relative importance in predicting habitual egg consumption using a multiple linear regression model.

The results revealed that these 21 components, alongside all other variables assessed, significantly predicted egg consumption in the target sample ( $R = 0.510$ ,  $R^2 = 0.260$ , adjusted  $R^2 = 0.166$ ,  $F(23,181) = 2.765$ ,  $p < 0.001$ ). Higher egg intakes were independently associated with greater reports of liking, tastiness and adding variety to the diet (Beta = 0.261,  $p = 0.012$ ); less firm adherence to stereotypes about the type of person who eats eggs (Beta = -0.159,  $p = 0.046$ ); greater difficulty stopping eating eggs once started (Beta = 0.216,  $p = 0.004$ ); and lower concerns over food safety (Beta = -0.145,  $p = 0.044$ ). Of the demographic and lifestyle factors, higher egg intakes were also associated with a higher Body Mass Index (Beta = 0.160,  $p = 0.022$ ).

These findings suggest that specific reasons for eating/not eating eggs are associated with higher egg intakes. Some of these reasons have previously been found to be associated in older adults with intakes of other protein-rich foods<sup>(1,2,5)</sup> or other foods<sup>(6)</sup>, although some outcomes are unique to this study. These findings suggest that strategies for interventions to increase egg consumption in the older population should focus on liking, tastiness and adding variety to the diet; reducing stereotypes; and increasing perceptions of the moreish nature of some egg recipes/dishes. Reducing concerns over food safety may also increase egg intakes, but this would need to be handled carefully, such that it is the concerns that are reduced as opposed to food safety itself.

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