

The impact of a supermarket-based intervention using personalised loyalty card incentives to increase weekly purchasing of fruits and vegetables

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Diets rich in fruits and vegetables (FV) are high in fibre and micronutrients and reduce the risk of Non-Communicable Diseases (NCDs)⁽¹⁾. Less than 30% of UK adults meet the recommended five FV portions per day⁽²⁾, highlighting the need for incentives to increase consumption. Increased consumption of plants is also encouraged for dietary sustainability. With 89% of UK customers shopping regularly in supermarkets, retailers offer opportunities for incentivising customers to purchase more FV. The aim of this study was to assess the effectiveness of app-based personalised incentives for increasing FV purchasing among supermarket loyalty card holders. A pre-post study design was used to investigate the effectiveness of offering loyalty card points and gamification elements to increase weekly FV purchase during and after a 4-week challenge period in Sainsbury's supermarkets. Participants (n = 463,277) were offered three personalised targets and two milestones on the way to their overall FV portion target together with badges. There were 10 potential targets customers could have received based on their previous purchasing habits. Redemption of these badges allowed earning of extra loyalty card points. The sample was predominantly female (66.1%) and aged between 30–59 years (64.8%). Mean weekly combined FV and product-specific FV purchases during the 4-week challenge period and 8 weeks after the challenge were compared with baseline (8 weeks before challenge), using regression models to assess effectiveness. Customer and transaction data was protected via pseudonymisation of ID numbers. Badges incentivised participants to purchase vegetables not previously in their shopping baskets. Mean weekly purchase of total FV for the intervention group increased from 30.4 (95%CI 30.3 to 30.5) portions at baseline to 34.0 (95%CI 33.9 to 34.1) during the intervention and to 33.0 (95%CI 32.9 to 33.1) portions after the intervention. The difference in weekly purchased portions of FV during the intervention were 3.6 more portions of FV (95%CI 3.5 to 3.7); and between baseline and after the intervention were 2.6 more portions of FV (95%CI 2.5 to 2.6) purchased respectively. Vegetable increase was greater than fruit. Customer's RFM loyalty segmentation (recency, frequency and monetary value) was the strongest predictor for change in fruit and vegetable portion purchase during and after the challenge compared with baseline. Gamification elements in exchange for extra loyalty card points was effective in incentivising supermarket customers to increase overall FV purchase and variety, with a greater effect on vegetables. Other factors such as seasonality may have influenced results. Analysis on a more diverse sample of participants is recommended with comparison to previous year's data and matched controls.

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References

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