

The Impact of Restricting Product Availability on the Purchasing of Lower Sugar Biscuits in UK Convenience Stores

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Abstract : Background: The government has proposed sugar reduction targets in an effort to tackle childhood obesity, focussing on those of low socioeconomic status (SES). Supermarkets are a key location for reducing the amount of sugar purchased, but success so far in this environment has been limited. Building on previous research, this study will assess the impact of restricting the availability of higher sugar biscuits as a strategy to encourage lower sugar biscuit purchasing, and whether the effects vary by customer SES. Method: 14 supermarket convenience stores were divided between control (n=7) and intervention (n=7) groups. In the intervention stores, biscuits with sugar above the government's target (26.2g/100g) were removed from sale and replaced with lower sugar (< 26.2g sugar/100g) alternatives. Sales and customer demographic information were collected using loyalty card data and point-of-sale transaction data for 8-weeks pre and post the intervention for lower sugar biscuits, total biscuits, alternative higher sugar products, and all products. Results were analysed using three-way and two-way mixed ANOVAs. Results: The intervention resulted in a significant increase in lower sugar biscuit purchasing ($p < 0.001$) and a significant decline in overall biscuit sales ($p < 0.001$) between the time periods compared to control stores. Sales of higher sugar products and all products increased significantly between the two time periods in both the intervention and control stores ($p < 0.05$). SES showed no significant effect on any of the reported outcomes ($p > 0.05$). Conclusion: Restricting the availability of higher sugar products may be a successful strategy for encouraging lower sugar purchasing across all SES groups. However, larger-scale interventions are required in additional categories to assess the long term implications for both consumers and retailers.

Keywords : biscuits, nudging, sugar, supermarket

Conference Title : ICNSFT 2020 : International Conference on Nutritional Science and Food Technology

Conference Location : London, United Kingdom

Conference Dates : January 20-21, 2020