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THE EFFECT OF IMPLICIT AND EXPLICIT TAXES ON THE PURCHASING OF 'HIGH-IN-CALORIE' PRODUCTS: A RANDOMIZED CONTROLLED TRIAL (IMPEX)

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Background

It is unclear if price increases or the accompanying messaging as a result of sin taxes are responsible for reductions in purchases of high-in-calorie products and whether the effects are moderated by the level of support for the tax.

Methods

941 adults were randomized to shop in one of four versions of an on-line grocery store: 1) no tax control; 2) implicit tax showing only post-tax prices (i.e., 20% higher than control prices) on high-in-calorie products; 3) fake tax showing pre-tax prices and a label falsely indicating that the price includes a 20% tax on high-in-calorie products; and 4) explicit tax showing the same label as in 3) and an actual 20% price increase applied to the high-in-calorie products. Differences in the proportion of taxed/targeted products purchased were assessed using a fractional logit model.

Results

The proportion of taxed/targeted products purchased was 14% in the control arm, a non-statistically significant 0.08 (95% CI -3.31 to 1.77) and 2.59 (95% CI -5.04 to 0.00) percentage points lower in the implicit and fake tax arms respectively and a statistically significant 3.35 (95% CI -6.01 to -0.005) percentage points lower in the explicit tax arm. Tax supporters showed greater responsiveness to explicit and fake taxes compared to non-supporters (elasticities -1.38 and -0.51 respectively).

Conclusion

Reductions in the proportions of high-in-calorie products purchased are largely attributable to explicit messaging rather than price increases and the effects are heavily dependent on the level of support for such taxes within the population.