

Promoting lower-calorie options on delivery apps could help users select healthier options, randomized trials find

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Simple initiatives to help people select lower-calorie options when ordering takeaways in delivery apps could help tackle the obesity

epidemic, suggest three randomized trials being presented at this year's European Congress on Obesity ([ECO](#)) in Dublin, Ireland (May 17-20).

The research, which involved using a simulated food delivery app, found that interventions which positioned lower-calorie foods and restaurants more prominently, pre-selected smaller portions by default, and displayed [calorie labels](#), all significantly reduced the total calorie content of takeaways by 2-15% compared to a control app.

The research is by Dr. Filippo Bianchi from the innovation foundation Nesta and the Behavioural Insights Team, London, together with colleagues from the University of Oxford.

"Our findings suggest that simple interventions could help people select lower-calorie options on delivery apps without the need to remove less healthy options," says Dr. Bianchi. "This doesn't mean that we always have to swap pizza for a green salad—even initiatives that make it easy to make small changes to what we eat could help to slowly reduce obesity, if delivered at scale."

Around 25 million adults in the UK use delivery apps such as UberEats, JustEat and Deliveroo—a 55% increase since 2015. Takeaways can be a great treat but tend to contain many more excess calories than meals cooked at home and are linked with higher risks of gaining too much weight.

[Previous analyses](#) of major UK restaurant chains found that only 9% of dishes contained less than 600 kcals a meal, and around half (47%) of meals were at least 1,000 kcals or more—which equates to about half of an adult's daily-recommended energy intake. The consumption of takeaway and delivery food has also been linked with higher energy intake and higher body mass index (BMI).

"Delivery apps could reach millions of people and help us select healthier food options, and yet there is very little research looking at what works to promote healthier and more nutritious options in these settings," says Dr. Bianchi.

To find out more, researchers developed a simulated food delivery app and conducted three randomized controlled trials including 23,783 adults (aged 18 or older who were users of food delivery apps) to evaluate 14 interventions promoting the selection of lower-calorie options against a control.

In each trial, participants were asked to choose a meal for themselves like they would in real life. The primary outcome was the total number of calories in the basket at checkout.

The results were adjusted for potentially confounding factors such as BMI, age, gender, and income.

Pre-selecting smaller portions by default

In the first trial, three interventions promoting the selection of smaller portions sizes through defaults were investigated. In total, 6,000 participants were randomly assigned to a [control group](#) (no intervention) or to either: (1) default to small portion size; (2) default plus normalization (using the term 'regular' instead of 'small'); or (3) default and normalization plus availability (the introduction of an additional 'extra small' portion size option).

Participants in the control group ordered a meal that contained, on average, 1,411 kcals—56-70% of an adult's recommended daily calorie intake in a single takeaway meal.

All three interventions significantly reduced calorie purchases by an

average of 5.5% (78 kcals per order; default) to 12.5% (177 kcals per order; combined intervention) compared to the control group.

Positioning lower-calorie foods and restaurants more prominently

The second trial tested four interventions that repositioned foods and restaurants to make lower-calorie options more prominent.

Overall, 9,003 adults were randomly allocated to a control group (restaurants and foods listed randomly) or to either: (1) lower-calorie food options listed at the top of menus; (2) restaurant options with lower calorie main meals at the top of the restaurant selection page; interventions 1 and 2 combined; or interventions 1 and 2 combined, but food and restaurant options repositioned so lower calorie and higher price options were at the top. This last initiative was designed to promote healthier options without negatively affecting restaurant businesses.

Participants using the control delivery app ordered a meal that contained, on average, 1,382 kcals—55-69% of an adult's recommended daily calorie intake.

Compared to the control app, all interventions significantly reduced the total calorie content of orders, but repositioning both food and restaurants to display lower calorie options at the top was the most effective—leading to an average 15% (209 kcals) reduction per order.

Importantly, the combined [intervention](#) that also took into account the cost of food, reduced the calorie content of orders by on average 8% (117 kcals) while increasing the price of the basket, remaining compatible with businesses' economic goals.

Displaying calorie labels

The final trial tested the impact of using seven different designs of calorie labels to encourage the selection of lower-calorie options in 8,780 adults.

Some labels involved simply stating the number of calories of different options, while other took more innovative approaches to also protect people who might be triggered by calorie information. For example, two labels allowed users to interact with a toggle that enabled them to hide or show the calorie information on the simulated app.

Compared to the control app (no calorie information provided), five out of seven labels significantly reduced the calorie content of orders ranging from an average of 2% (33 kcals/order reduction) to 8% (110 kcals/order for calorie labels combined with a filter that allows people to display or hide the calorie information).

The Think-aloud study by the same authors being published simultaneously at ECO, explored how best to enhance the effectiveness and acceptability of calorie labels in food delivery apps in consultation with 20 adult delivery app users in the UK.

The key recommendations include: providing a filter that allows users to switch calorie labels on and off; communicating recommended energy intake per meal (i.e., 600 kcal) and not just per day (i.e., 2,000 kcal); and avoiding framing calorie label messaging or formatting as judgmental (e.g., red fonts).

"These studies provide encouraging proof-of-concept evidence that small tweaks in delivery apps could help many people to identify and select healthier foods. Testing similar initiatives with real restaurants and [delivery](#) apps will be important to assess the long-term impact of these

interventions in the real world. Further research should also explore the best way to balance desired health impacts while minimizing effects on businesses and on cost-of-living concerns for consumers," says Dr. Bianchi.

Provided by European Association for the Study of Obesity

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