Uptake and retention in a digital low-calorie diet programme delivered within an ethnically diverse population living with type 2 diabetes

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Introduction

Face-to-face remission studies such as Direct^{1,2} have shown that 46% of their study population were able to achieve remission of their diabetes. This was likely to be sustained at 2 years in those who had lost 15kg in body weight.

Potential limitations to face-to-face (F2F) studies may include:

Primary
care/dietetic
capacity is limited
and training needs
are high

Low engagement rates due to high frequency face-to-face sessions

High costs of meeting space and delivery staff

Uptake by ethnic minorities groups remains low

Such F2F interventions are not always accessible or cost-effective at scale. Patients will sometimes be offered digital or remote pathways and services if they decline F2F. The digital remote offering is becoming increasingly popular and hypothesised to drive access for those who are usually harder to reach.

There is a need to widen access to effective healthcare to enable all people, especially those who cannot attend F2F, with equivalent evidence-based support.

Aims

To evaluate the uptake and retention of a digital low-calorie diet programme for adults living with type 2 diabetes within an ethnically diverse population.

Methods

Oviva is a clinically-led provider of remote services in 39 NHS regions across the UK. Oviva Diabetes 800 is a digitally enabled programme designed to help people living with type 2 diabetes achieve remission. It consists of 12 weeks of 800kcal/day total diet replacement (TDR), 4 weeks of food re-introduction and 8 months of weight loss maintenance and behaviour change support. It aims to provide an accessible option for people requiring support and represents an effective alternative to F2F remission programmes.

We analysed data from adults following the programme to determine uptake, retention and engagement of different ethnic groups at 12 weeks.

All patients had access to the Oviva app to monitor their food and fluid intake, activity levels, mood, bowels and other clinical changes such as blood pressure and blood glucose. They also had access to additional Learn content to support the TDR phase and new sustainable lifestyle goals.

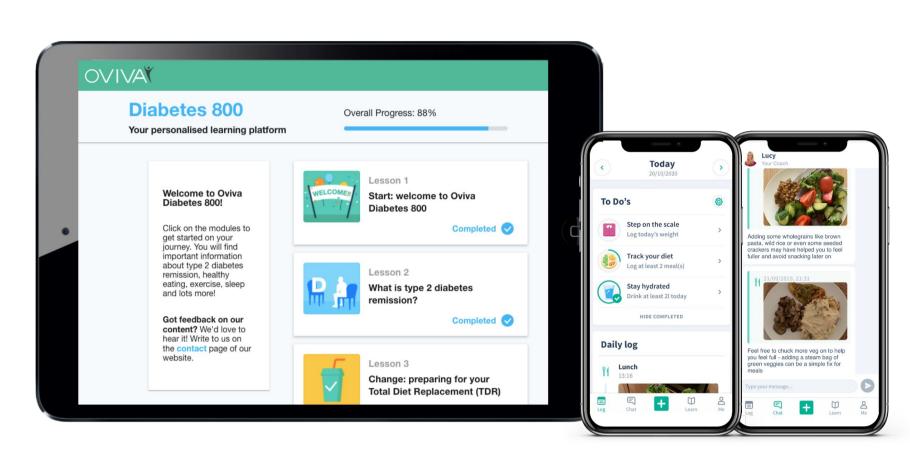
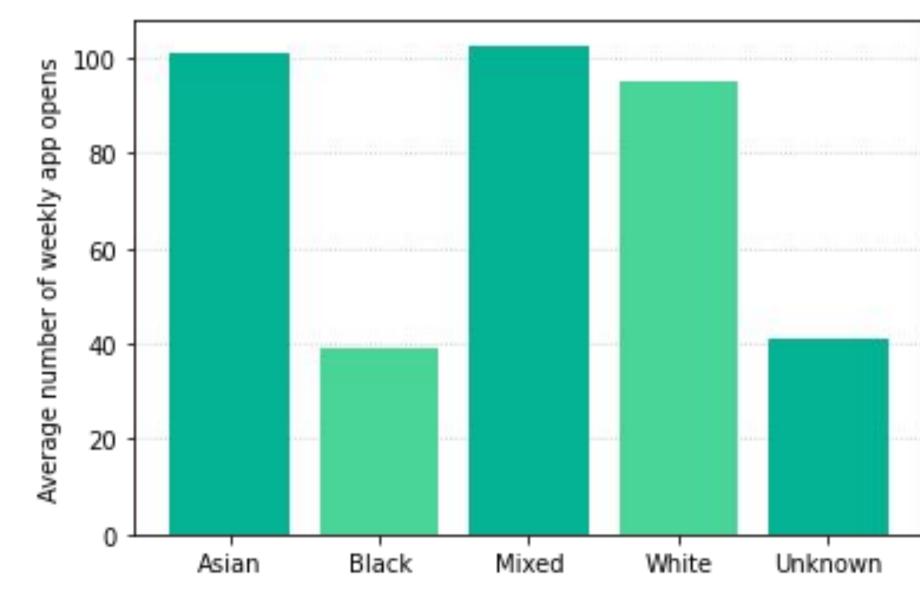


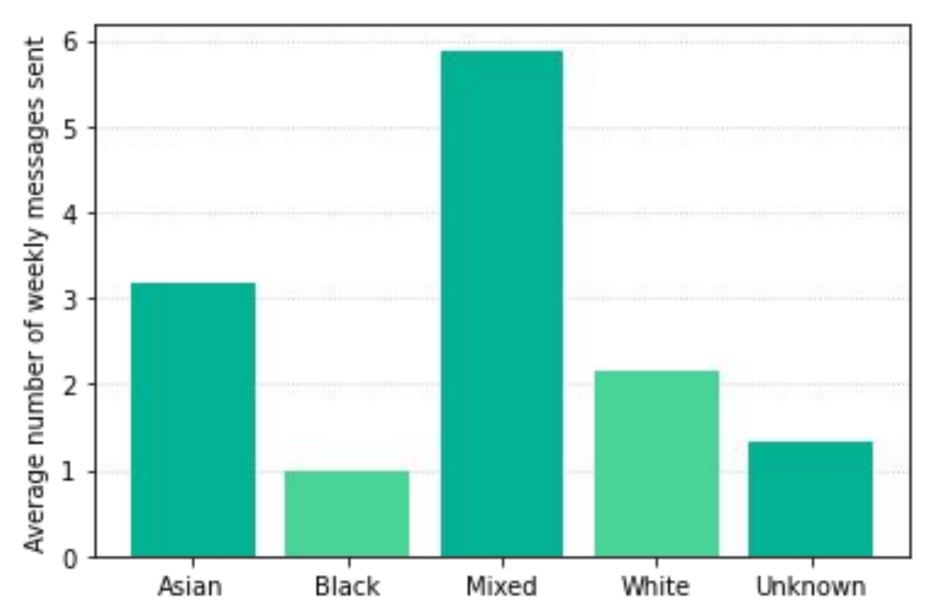
Figure 1: Oviva's app supports behaviour changes, and the online Learn portal can be accessed via smartphone, tablet, or desktop.

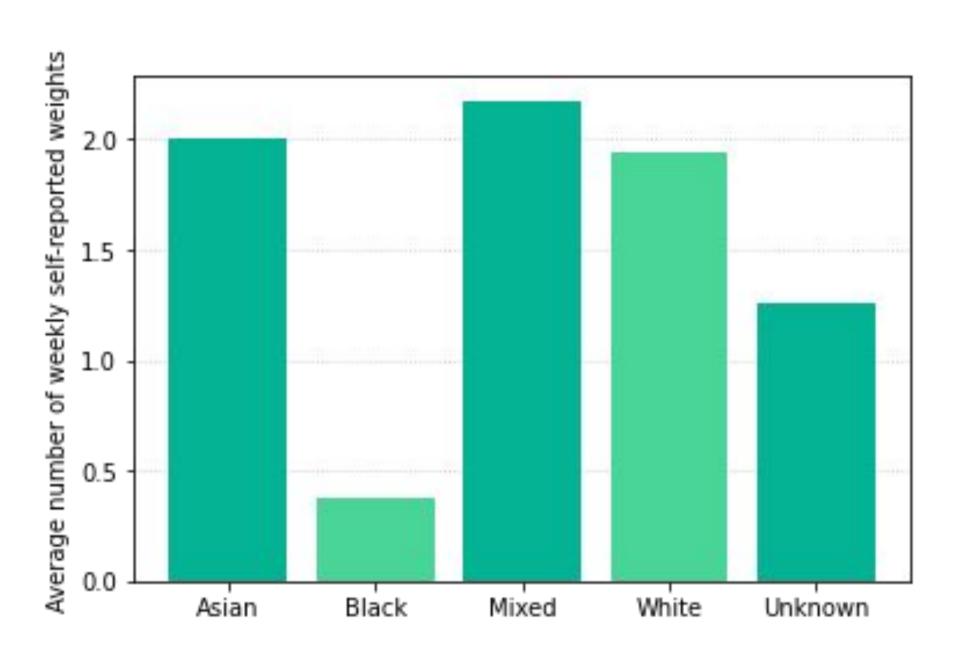
Results

25 eligible referrals were accepted. 13 (52%) were white British versus 12 (48%) from other ethnic groups. Of these referrals 8 (61.6%) patients from the white British group and 9 (75%) from the other ethnic groups started the TDR. Of the patients who could have been retained at 3 months, similar retention was seen at 12 weeks between groups, with 3/4 (75%) white British versus 5/7 (71.4%) other ethnic groups, retained after 12 weeks of following an 800kcal diet.

The following data is from patients who have been on the programme for at least 7 days.







	Average number of times app opened per week	Average number of messages sent to coaches per week	Average number of self-reported weights per week
White (n=3)	32.6	1.3	0.8
Other ethnic groups(n=5)	18.6	2.1	0.4

Conclusions

Preliminary data demonstrates that a digital low-calorie diet programme appears to be acceptable to both white British and other ethnic groups of adults living with type 2 diabetes, with similar engagement levels and retention rates observed at 12 weeks.

The uptake and engagement rates suggest that a digital or remote offering provides more convenient support to hard to reach groups, and has the potential to widen access to care and improve uptake and retention figures across the UK.

References:

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- 2. Lean M, Brosnahan N, McLoone P, McCombie L, Higgs AB, Ross H, et al. . Feasibility and indicative results from a 12-month low-energy liquid diet treatment and maintenance programme for severe obesity. Br J Gen Pract. (2013) 63:e115–24. 10.3399/bjgp13X663073.