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## **IMPACT OF A DIABETES MOBILE APP WITH IN-APP COACHING ON GLYCEMIC CONTROL**

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In-person diabetes self-care programs have traditionally helped people manage the condition, leading to improved glycemic control (i.e., reducing A1c levels) and prevention of complications. Newer mobile self-care programs are more feasible, but program impact on clinical outcomes must be assessed. We therefore conducted a 12-week-long intent-to-treat single-arm study to evaluate the impact of a mobile diabetes self-care program (One Drop | Mobile app and 'Experts' coaching program) on glycemic control for 146 individuals with uncontrolled type 2 diabetes (T2D) (A1c  $\geq$  7.5%).

Study participants used the app to track self-care activities, set goals, receive data-driven insights, community support, tips, advice, recipes, and inspiration. A Certified Diabetes Educator delivered diabetes education and 24/7 on call support via the in-app messaging feature, and participants were provided a glucose meter and test strips. We collected self-reported demographics, and baseline and 12-week A1c. On average, study participants were  $52 \pm 9$  years old, 73% were female, 26% were Black or Hispanic, 49% had less than a college degree, 48% were on insulin, and 81% were obese. Duration since T2D diagnosis was  $10 \pm 7$  years, and average baseline A1c was  $9.9\% \pm 2.0\%$ .

A total of 127 participants completed baseline and 12-week A1c data. To correct for missingness, multiple imputation with predictive mean matching generated 13 imputed datasets. According to a pooled unadjusted and adjusted repeated measures model (adjusted for age, sex, race, education, years since diabetes diagnosis, insulin use, and BMI with robust standard errors), A1c improved by -0.8% ( $p < 0.001$  for unadjusted and adjusted) from baseline to 12 weeks.

The landmark UKPDS trial showed that a -1.0% A1c improvement is associated with a reduction of diabetes-related complications and deaths. Results from our study suggest that this mobile app and coaching program may reduce the A1c of people with uncontrolled T2D, potentially reducing their risk of complications.