**Abstract title (max. 25 words):**

A 12-month mHealth low-carbohydrate dietary intervention improved clinical and psychosocial outcomes in people with type 2 diabetes.

**Abstract (max. 300 words):**

**Aim:** To evaluate the 12-month effect of the Defeat Diabetes mobile health (mHealth) low-carbohydrate dietary (LCD) intervention on clinical outcomes and self-reported health status in individuals with type 2 diabetes (T2D).

**Methods:** People with T2D were referred to the research team via general practitioners (GPs), who were provided education on LCD management of T2D as part of a continuing professional development (CPD) activity, accredited by the Royal Australian College of General Practitioners (RACGP). Following informed consent, clinical data, including the primary outcome glycosylated haemoglobin (HbA1c), were collected at baseline and 12 months as part of routine diabetes care. Dietary intake was assessed via food records, while participant-reported outcomes were measured using validated questionnaires on quality of life (QoL), self-efficacy, diabetes-related distress, and sleep quality. Participant and GP feedback regarding the intervention were also collected. Univariate regression models were used to examine changes from baseline to 12-months.

**Results:** Of the 99 participants enrolled, 87 (mean age 59 ± 11 years, 55 females) completed the 12-month follow-up. Significant reductions were observed in HbA1c (-0·9%; 95% CI: -1·2 to -0·6), systolic and diastolic blood pressure, triglycerides, and liver enzymes (ALT and GGT). Waist circumference and other cardiometabolic risk markers also improved significantly. Participants self-reported increased QoL and self efficacy, and less diabetes related distress. Most participants expressed high satisfaction with the app at 12 months. All 30 GPs who provided feedback indicated they would recommend an LCD approach for T2D management to their patients, and would recommend the CPD activity to a colleague.

**Conclusion:** The Defeat Diabetes mHealth application (app) delivering LCD education and support resulted in improvements in glycaemic control, cardiometabolic health markers, and self-reported outcomes over 12 months. Positive feedback from both participants and GPs highlights the value of incorporating LCD-based digital tools into routine T2D management in primary care.