Study of a Remotely Delivered, Tailored eHealth Behavioural Change Intervention in Type 2 Diabetes Mellitus

PURPOSE

To determine the efficacy of an 8-week eHealth intervention in a self-selecting sample of people diagnosed with Type 2 Diabetes.

Primary clinical outcomes measured:

- HbA1c
- Weight

Secondary clinical outcomes measured:

- Blood Pressure
- BMI
- Waist Circumference
- Total Cholesterol
- Triglycerides
- LDL & HDL

METHODS

- Clinical Research Ethics Committee (CREC) approved study
- 50 self-selecting, non-paying participants (Age: M= 57; BMI, M= 34.11)
- 31 T2D (HbA1c ≥6.5%) (Avg. 7.84%)
- 7 PD (HbA1c ≥5.7% & <6.5%)
- 37 OWO
- Emphasis on reduction of refined carbohydrates & sugar
- Dietary intake monitoring & analysis
- Regular tailored review (phone call or video)

RESULTS

T2D Normalised HbA1c 48%*

HbA1c -1.04 (-13.26%)*

Weight -6kg (-5.87%)

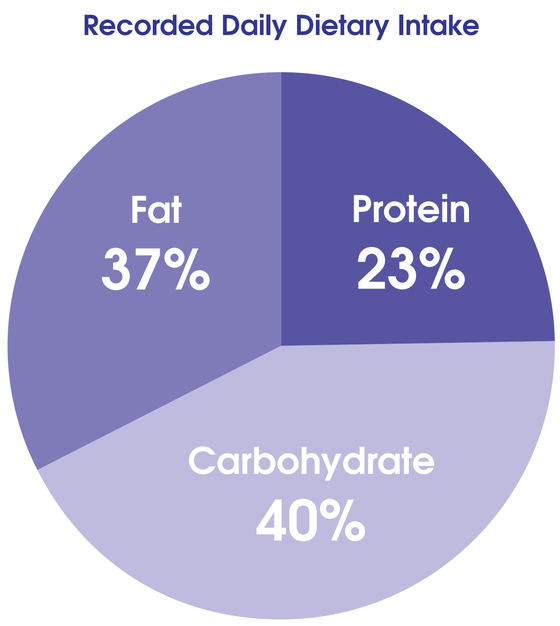
Waist -6.82 cm (-6.26%)

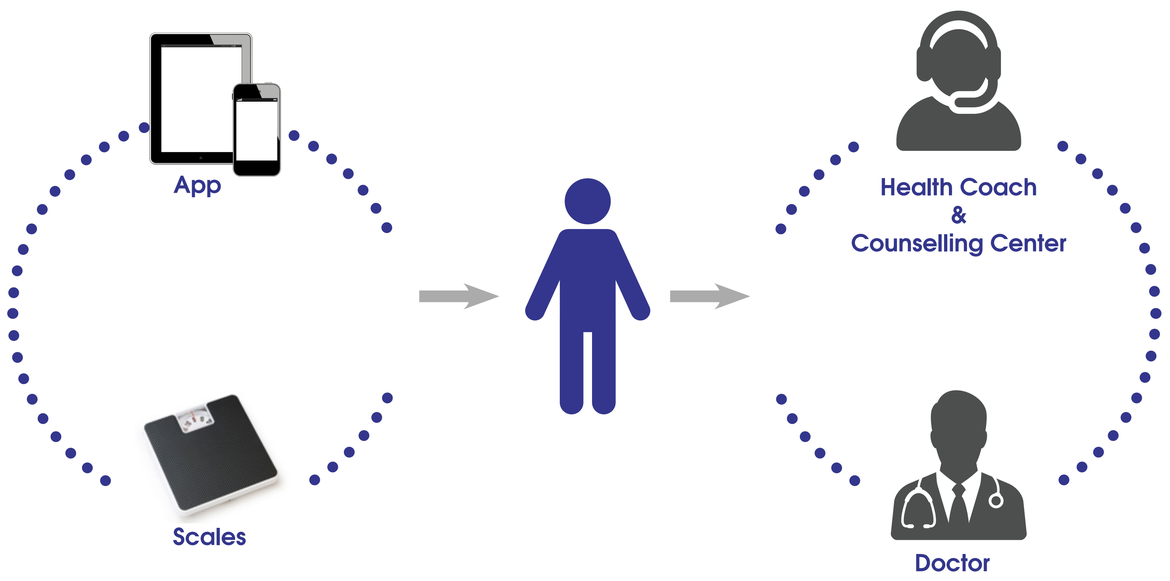
Triglycerides -14.28%

Systolic Blood Pressure -11.37 (-8.47%)

* HbA1c≥6.5%; @T1 (N=31), @T2 (N=16)

- BMI (-6.08%), Total Cholesterol (-5.0%), LDL (-5.17%), HDL (8.62%), Cholesterol Ratio (-11.50%), Diastolic Blood Pressure (-6.92%).





- An analysis of the average daily dietary intake showed that Fat consumption was 49.5g (37%) Carbohydrate was 118.1g (40%) and Protein was 68.8g (23%).

CONCLUSION

These initial results indicate that the intervention was highly effective in improving glycaemic control and weight loss, as well as other related clinical outcomes in adults with T2D.

The balanced dietary approach which emphasised the consumption of whole foods and reduced levels of refined carbohydrates and sugar was effective. The programme was delivered entirely remotely using novel eHealth strategies. The program is highly scalable and cost effective.

AUTHORS & REFERENCES

Authors: Colwell N+., Egan S*., Sheppard A*: Cardiohealth+; RediCare* **References:** HEART 2015: Suppl 5; A43; ESC 2015 London: ESCardio.org; EFIM 2016 Amsterdam: EFIM.org; AHA guideline to Obesity Treatment 2016; National Acute Medicine Program 9/18 RCPI

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