

Effectiveness of an electronic food diary in weight reduction

Submission date 19/02/2013	Recruitment status No longer recruiting	<input type="checkbox"/> Prospectively registered
		<input type="checkbox"/> Protocol
Registration date 06/03/2013	Overall study status Completed	<input type="checkbox"/> Statistical analysis plan
		<input type="checkbox"/> Results
Last Edited 10/07/2015	Condition category Nutritional, Metabolic, Endocrine	<input type="checkbox"/> Individual participant data
		<input type="checkbox"/> Record updated in last year

Plain English summary of protocol

Background and study aims

Weight loss can be difficult and lots of research has been done to find effective plan for improving weight loss programmes. It has been shown that if participants don't stick to weight loss programmes for long, and don't change their behaviour, weight loss can't be sustained in the long run. In modern weight management programmes, a food diary is a self-monitoring method to record daily diet for nutritionists to look at later. With the help of modern technology, food diaries could help participants to learn how to keep the weight off. The aim of this study was to test if an electronic food diary (the Portal) helped obese people to lose weight effectively.

Who can participate?

The study aimed to recruit 60 adults aged 20-60 with body mass index of 25 or more.

What does the study involve?

Recruited obese subjects were randomly assigned to one of three groups (electronic food diary or paper food diary or control group). Each subject received three sessions with each of 60-90 minutes diet consultations. Bio-measurements of body height, body weight, fat percentage, blood pressure, waist and hip circumference were done before and after the intervention. Exercise was recommended to all subjects in three groups. Eating behaviour, nutritional knowledge and performance at work, sports and leisure activities were measured by questionnaire at the start and end of the project.

What are the possible benefits and risks of participating?

Participants had access to a well-organised weight loss programme. An electronic food diary helped them monitor their own food intake. Participating in this study helped scientists see whether the electronic food diary worked, and whether using these could help lower the cost of weight loss programmes in the future. There were no known risks associated with participating.

Where is the study run from?

The Hong Kong Polytechnic University

When is the study starting and how long is it expected to run for?

The study started recruitment in July 2011. Participants were recruited for a period of 3 months from September 2011 to November 2011.

Who is funding the study?

The study was funded by the investigators.

Who is the main contact?

Dr. Louisa Chung
chungmy@ied.edu.hk

Contact information

Type(s)

Scientific

Contact name

Dr Louisa Ming Yan Chung

Contact details

D4-11, 2/F
10 Lo Ping Road
Tai Po
NT

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Hong Kong

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-
chungmy@ied.edu.hk

Additional identifiers

Protocol serial number

R3374

Study information

Scientific Title

Effectiveness of an electronic food diary in weight reduction: a double-blind randomised controlled trial

Study objectives

It is hypothesised that participants using electronic food diary in tele-dietetics have better weight reduction than the participants using paper food diary and the control group.

The null hypothesis is that there is no difference in weight reduction between the three groups.

Ethics approval required

Old ethics approval format

Ethics approval(s)

Ethics Committee of Hong Kong Polytechnic University, January 2011

Study design

Double-blind randomised controlled trial

Primary study design

Interventional

Study type(s)

Quality of life

Health condition(s) or problem(s) studied

Obesity

Interventions

Intervention arms: The participants in the paper food diary (FD) and electronic diary (ED) groups recorded their dietary intakes in logbooks and on an electronic diary system, respectively.

Control arm: The participants in the control group (CG) did nothing.

The total duration of treatment was 12 weeks. Measurements of outcome parameters were before the study, week 6 and week 12 (after the study).

Intervention Type

Other

Phase

Not Applicable

Primary outcome(s)

1. Body weight
2. Body mass index (BMI)
3. Fat percentage
4. Waist-to-hip ratio (WHR)
5. Mean arterial pressure

Measured before the study, at week 6 and at week 12.

Key secondary outcome(s)

1. Eating Attitudes Test (EAT) will be used as subjective eating behaviour assessment
2. General Nutrition Knowledge Questionnaire (GNKQ) for adults will be used as objective nutritional knowledge assessment
3. Questionnaire for measurement of habitual physical activity (HPA) will be used for assessment of work, sports and leisure activities.

Measured before the study and at week 12.

Completion date

30/12/2011

Eligibility

Key inclusion criteria

1. Aged between 20 and 60
2. Body mass index (BMI) >25

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Sex

All

Key exclusion criteria

Does not meet inclusion criteria

Date of first enrolment

01/07/2011

Date of final enrolment

30/12/2011

Locations

Countries of recruitment

Hong Kong

Study participating centre

D4-11, 2/F

-

Hong Kong

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Sponsor information

Organisation

Hong Kong Institute of Education (Hong Kong)

Funder(s)

Funder type

Other

Funder Name

Investigator initiated and funded (Hong Kong)

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Not provided at time of registration

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes