Dietary Assessment Study - An evaluation study to assess validity and acceptability of a new smartphone-based dietary assessment method

Published: 13-05-2019
Last updated: 09-04-2024

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Ethical review	Approved WMO
Status	Recruitment stopped
Health condition type	Other condition
Study type	Observational invasive

Summary

ID

NL-OMON48204

Source
ToetsingOnline

Brief title
DIASS

Condition

- Other condition

Synonym
n.v.t.

Health condition

voedselconsumptieonderzoek, wanneer de app valide is zou deze in toekomst gebruikt kunnen worden voor onderzoek naar voedingsinname en allerlei ziektes en stoornissen.

Research involving
Human

Sponsors and support

Primary sponsor: Wageningen Universiteit
Source(s) of monetary or material Support: Ministerie van OC&W,Friesland Nutrition,Nutricia,Philips Research,TKI Agri & Food,Unilever

Intervention

Keyword: Biomarkers, Dietary assessment, Food intake app, Validation

Outcome measures

Primary outcome

The main study parameters are dietary intake of 220 participants, gathered with 2hRs, 24hRs and FFQ (i.e. food groups, foods, energy, macronutrients, micronutrients). . Chemical biomarkers from urine and blood of 100 participants. Demographics and total energy expenditure from all participants.

Secondary outcome

The secondary study parameters will be the compliance to the 2hRs and the acceptability (incl. perceived burden) of the different sampling schemes.

Study description

Background summary

Accurate dietary assessment is essential in nutrition research. The mainstay of dietary assessment consists of food records (FRs), 24-hour recalls (24hRs), and food frequency questionnaires (FFQs). However, they are charged with a range of drawbacks such as measurement error and a large burden on participants. Therefore, there is a growing interest in more technology-based dietary assessment methods (e.g. online tools, smartphone applications), which have the potential to improve accuracy and reduce participant*s burden. To collect food intake data in a faster, more flexible, and more reliable manner, we developed an innovative 2-hour recall (2hR) smartphone app (i.e. *Traqq*). A 2-hour

reporting period should minimize the reliance on memory thus increasing accuracy of the reports. This should also lower participant burden as only a few items have to be recorded at once.

Study objective

The main objective of DIASS is to evaluate the ability of the smartphone-based 2hR app *Traqq* to accurately assess the actual and usual intake of food groups, foods, energy and nutrients (i.e., macro- and micronutrients) while using different interval schemes. The secondary objective is to gain insight in the level of acceptability (incl. perceived burden) and compliance of the different interval schemes.

Study design

The DIASS study has a cross-over design with two experimental conditions divided over six groups; i.e. measuring actual intake and habitual intake. Within the actual intake condition, subsamples will be created (i.e. groups 2, 3, 5, 6). The participants will be randomly assigned to one of six groups.

Study burden and risks

In one period, all participants will be asked to complete three full-day 2hRs (i.e. 3x8 prompts), three 24hRs, either web-based (180 participants) or via telephone (40 participants), and additionally 100 participants will asked to collect two 24-h urine samples and for two venapunctures. During the other period all participants will receive twenty-four random 2hRs and complete one FFQ. The study periods will be in random order. All participants will be asked to fill in one questionnaire on personal characteristics and one evaluation questionnaire. The 24hRs and FFQ will take about 30 minutes while responding to the prompts will take on average 5 minutes. The additional questionnaires will take no longer than 15 minutes and all questionnaire will be administered online. Venapunctures can occasionally cause a local hematoma or bruise and some participants may report pain or discomfort

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Adults (18-64 years)
Elderly (65 years and older)

Inclusion criteria

- Male/female
- Aged 18-70 years old
- Metabolically stable (i.e. gained or lost *3 kg in the past 3 months and willing to maintain current dietary habits for the duration of the study)
- In possession of a smartphone
- in possession of an e-mail address

Exclusion criteria

- Not able to speak and read Dutch
- Visually impaired
- Currently participating in another research study(excl. EetMeetWeet)
- Currently following or having completed any formal training in the field of nutrition (e.g. Nutrition and Health, Nutrition and Dietetics)
- Not willing to sign the informed consent

Study design

Design

Study type:	Observational invasive
Intervention model:	Crossover
Masking:	Open (masking not used)
Control:	Uncontrolled
Primary purpose:	Other

Recruitment

NL

Recruitment status:	Recruitment stopped
Start date (anticipated):	10-07-2019
Enrollment:	220
Type:	Actual

Ethics review

Approved WMO

Date:	13-05-2019
Application type:	First submission
Review commission:	METC Wageningen Universiteit (Wageningen)

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
CCMO	NL69065.081.19