



UNIVERSITY OF LEEDS

This is a repository copy of *Can a new diet tracking app, myfood24 healthcare, support tier 3 weight management and gastroenterology surgery patients? A feasibility randomised controlled trial.*

White Rose Research Online URL for this paper:

<https://eprints.whiterose.ac.uk/206497/>

Version: Accepted Version

Proceedings Paper:

Threapleton, D., Cade, J., Beer, S. et al. (3 more authors) (2023) Can a new diet tracking app, myfood24 healthcare, support tier 3 weight management and gastroenterology surgery patients? A feasibility randomised controlled trial. In: *Annals of Nutrition and Metabolism*. IUNS 22nd International Congress of Nutrition, 06-11 Dec 2022, Tokyo, Japan. Karger , pp. 705-706.

<https://doi.org/10.1159/000530786>

This item is protected by copyright. This is an author produced version of a conference paper published in *Annals of Nutrition and Metabolism*. Uploaded in accordance with the publisher's self-archiving policy.

Reuse

Items deposited in White Rose Research Online are protected by copyright, with all rights reserved unless indicated otherwise. They may be downloaded and/or printed for private study, or other acts as permitted by national copyright laws. The publisher or other rights holders may allow further reproduction and re-use of the full text version. This is indicated by the licence information on the White Rose Research Online record for the item.

Takedown

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.



eprints@whiterose.ac.uk
<https://eprints.whiterose.ac.uk/>

Can a new diet tracking app, myfood24 healthcare, support tier 3 weight management and gastroenterology surgery patients? A feasibility randomised controlled trial

Diane Threapleton¹, Janet Cade¹, Sarah Beer³, Sarah Trevillion², Dermot Burke¹, Darren Greenwood¹

1. University of Leeds (UK),
2. York and Scarborough Teaching Hospitals NHS Foundation Trust (UK),
3. Dietary Assessment Ltd (UK)

Background: Healthcare professionals regularly see patients requiring dietary support, however, they do not have all the tools needed to easily track food and nutrient intakes. Monitoring nutritional intake is of clinical value but few existing tools offer electronic dietary recording, instant nutritional analysis and a platform connecting healthcare teams with patients, providing timely, personalised support. This feasibility randomised controlled trial tests 'myfood24 Healthcare', a dietary assessment app and healthcare professional website in two clinical populations.

Methods: Two patient groups were included. Patients from a weight management programme in York and gastroenterology surgery outpatients, Leeds (UK). They were randomised into three groups: standard care, myfood24, or myfood24+diet optimisation (automated suggestions for dietary improvement). Participants were asked to record diet with the app at least four times over eight weeks. Healthcare professionals viewed patient dietary information linked to targets. Participants provided feedback on usability and acceptability.

Results: 21 weight management patients and 27 gastroenterology surgery patients were recruited and 16 randomised to each of 3 groups. Patient mean age was 51y and self-rated internet ability was only 'fair'. Compliance in app users (n 32) was good, with 25 (78%) using it at least once. Among users the mean (SD) days recorded was 14.0 (17.5). Mean daily energy intake for weight management patients was 1060 (SD 513) kcal; with energy from 29% fat, 52% CHO; 20% protein; and for gastroenterology patients 1209 (SD 675) kcal; with energy from 37% fat, 50% CHO; 13% protein. Feedback questionnaires were completed by 50%. Despite small numbers, some patients said symptoms had improved by using myfood24 and that it could help them manage their condition. The mean System Usability Score was 59 (95% CI, 48 to 70). Patient and healthcare professional feedback indicates that patients found the tool easy to use, but needed more user training at the start and improvement of some key app features such as the search function.

Conclusions: This feasibility study shows that myfood24 Healthcare app is acceptable for patients and healthcare professionals. These data have informed app refinements, which are now in place.

Keywords: Dietary assessment, diet app, healthcare professional, patient, weight management

Conflict of Interest Disclosure: Prof Cade is a Director of Dietary Assessment Ltd.