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

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.