

# HPB surgical patient engagement with a digital dietary assessment tool

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## Introduction:

Dietary assessment is an essential component of dietetic clinical practice. Current assessment methods such as 24-h dietary recalls and paper food diaries require time, knowledge, and skill, but may be inaccurate because of under-reporting, misinterpretation, or daily variations in dietary intake.

Digital dietary assessment tools have been shown to improve completion rates, increase the accuracy of estimated nutritional intakes, and reduce costs. However, very little research has looked at whether digital tools assessing dietary intake can be successfully introduced and used within routine clinical practice.

This project aimed to evaluate patient engagement with a digital dietary assessment tool, myfood24 (<https://www.myfood24.org>).

## Methods:

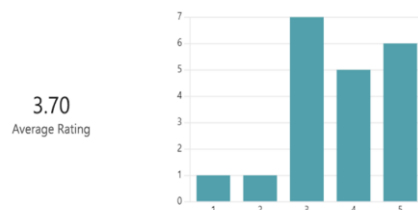
Eligible participants were adult patients, under the care of the HPB specialist surgical dietitians, at Manchester Royal Infirmary, undergoing surgical treatment. Patients were asked to input dietary intake into the Myfood24 app over a 24-hour period at least 2 times a week prior to their outpatient dietetic appointments. Following participation an electronic link to a questionnaire was sent for feedback on usability and acceptability.

## Results:

Between November 2023 and June 2024, 90 patients were invited to use the app. Of these 59 (66%) activated the app, and 49 patients (54 %) completed at least one diary entry. A total of 556 diaries were submitted during this period.

Of the patients that engaged with the app, 20 completed a patient feedback form. An average rating of 3.7/5 was given for ease of use. 14/20 patients strongly agreed or agreed that using the myfood24 app had made them more aware of their dietary intake. 14/20 patients agreed that using the app had made their consultation with their healthcare professional more informative.

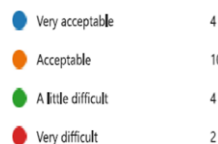
Overall, how easy was it using the myfood24 app?



Would you consider this statement to be true? "Using myfood24 made the consultation with my healthcare professional more informative"



How acceptable was it inputting your food data onto the app twice a week?



By using myfood24 you felt more aware of your dietary intake?



## Positives

"Able to see the results and analysis at the end of the day and also understand more about what I am eating"

"It gives the dietitian the info he needs to help me in the areas that need attention"

"The information it gave my dietitian which he then explained to me"

"It allowed me to track progress in my eating habits and I could see how my appetite was increasing over time"

"Allows me to remember what I've been having on a daily basis"

## Negatives

"it wasn't very user friendly, but it has got easier"

"Finding food items at times are difficult even when scanning the bar code it doesn't come up with correct products"

"the key improvement would be a larger list of items used previously to choose from which would speed up the input"

"Adding a food entry - feels like it requires one tap too many"

"Shortlist of common foods would be a good idea, what I mean is the app remembers common foods you have used before"

## Conclusion

This service improvement project shows the feasibility of introducing a digital dietary assessment tool, myfood24 into a HPB dietetic service. However, further work is required to explore the barriers to patient participation and usability within other dietetic teams and patient populations.