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UK university students' perceptions about the benefits and value of personalised nutrition advice delivered by the web-based eNutri app

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University students often make less healthful dietary choices whilst at university however, do not typically receive advice and support to help them eat more healthily^(1,2). A tool which could be provided to students to promote more favourable dietary behaviours is the eNutri web-based app which includes a food frequency questionnaire (FFQ) and delivers automated personalised nutrition advice (PNA) and a diet quality score (DQS) consisting of 11 food/nutrient components⁽³⁾. The PNA includes scores and general advice for each component and, for the user's three lowest scoring components, recommends which foods to eat more/less frequently to improve their DQS. As part of a 4-week intervention study, we aimed to explore the perceptions of the eNutri PNA in UK university students.

As part of this intervention, 14 students from the Universities of Reading and Hertfordshire completed the eNutri FFQ and received their PNA. At the end of the study, they rated how much they agreed with statements about the perceived value and benefit (if any) of the eNutri PNA tool, on a 6-point scale ranging from strongly disagree to strongly agree. The percentage of respondents reported is the total number who responded "somewhat agree", "agree", or "strongly agree" to each statement.

Of the 14 students, 79% were female with a mean age of 25y (range = 18–37y) and mean BMI of 24.7kg/m² (range = 19.4–31.9kg/m²). At baseline, the average importance of a healthy diet to the participants ($n = 13$) was rated at 7.2 out of 10 (with 0 being 'not important at all' and 10 being 'very important'). In total, 57% of respondents indicated that they felt they 'were eating a healthier diet because of the eNutri advice received' and only 14% reported that 'the advice did not motivate them to make changes to their diet'. Furthermore, 64% of respondents indicated that the 'eNutri PNA gave them confidence in their ability to make changes to their diet' and that it 'supported them to do so'. Half of the students agreed that 'they would want to use eNutri long term to track their progress and receive regular PNA'. In addition, 79% agreed that 'eNutri should be offered to all university students to help them make healthier food choices', and that if eNutri was offered to them for free by their university, 'it would be a valuable student benefit' and they 'would want to use it again'.

In general, university students indicated the eNutri PNA tool supported them to eat healthier and providing access to the wider student population would be beneficial to encourage healthy eating at university. These findings along with the quantitative data from the PNA intervention which is currently being analysed will support the development of larger, suitably-powered studies to confirm these findings.

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References

1. Sprake EF, Russell JM *et al.* (2018) *Nutr J* **17**(1), 90.
2. Tanton J, Dodd LJ *et al.* (2015) *Adv Prev Med* **2015**, 639239.
3. Fallaize R, Weech M *et al.* (2020) *Agro Food Ind. Hi Tech* **31**(2).