



## Nourished@Deakin – can an online cooking program inspire university students to cook and eat healthier?

C. Margerison<sup>1</sup>, I. Lichomets<sup>1</sup> and A. Booth<sup>1</sup>

<sup>1</sup>Institute of Physical Activity and Nutrition, Deakin University, Victoria 3125, Australia

University students are a unique population subgroup, who experience a life transition into adulthood, often marked by the establishment of unhealthy eating behaviours<sup>(1)</sup> which are associated with chronic disease risk factors, poor mental health and lower academic achievement<sup>(2)</sup>. Data regarding the food skills/behaviours of university students is limited, but low cooking self-efficacy and food skills are potential barriers to healthy meal preparation<sup>(1)</sup>. *Nourished@Deakin* is an online cooking program, co-designed by Deakin University students, that aims to inspire students to cook and eat healthier. It commenced in November 2021 and includes a series of blogs, recipes, and cooking videos, available to all Deakin students via a Deakin University blog site. To determine if accessing *Nourished@Deakin* improves food skill confidence, food intake, and nutrition knowledge, participants completed a short online survey before accessing *Nourished@Deakin* materials and then again four weeks after their first engagement. The survey included 31 questions regarding confidence related to a variety of food skills (eg. recipe following, reading food labels, meal planning); 2 questions regarding fruit/vegetable intake; 11 knowledge questions regarding the Australian Dietary Guidelines (ADGs); and 16 demographic questions. Pre/post surveys were compared using paired t tests (knowledge scores, fruit/veg serves) or McNemar exact test (proportions). A total of 108 students completed the pre-survey and 41 (mean (SD) age 27.0 (8.4) years; 63% female) also completed the post-survey. Of the 41 participants who completed both surveys, 42% were studying within the Faculty of Health and 16 (39%) were living in the family home with parents. Most (68%) were studying full time and 59% were employed part-time/casually. Three-quarters were domestic students, and 59% were undergraduate students. Following completion of *Nourished@Deakin*, there was a significant increase in the proportion of participants feeling confident in two of the 31 food skills (namely 'meal planning': 44% pre vs 63% post,  $P < 0.05$ ; and 'growing fruit and/or vegetables at home': 22% pre vs 44% post,  $P < 0.05$ ). Fruit intake increased from 1.6 serves/day pre-program to 1.9 serves/day post-program ( $P < 0.05$ ), but vegetable intake remained stable (2.5 serves/day pre and 2.6 serves/day post,  $P = 0.287$ ). Before participating in *Nourished@Deakin*, 56% of participants correctly reported the recommended daily serves of fruit and 66% correctly reported it for vegetables. The mean ADG knowledge score was 8.2/9 and 49% of participants got all nine questions correct. There were no significant changes in any of the knowledge markers post-program. Over a relatively short period, *Nourished@Deakin* produced modest improvements in the self-reported confidence in some food skills and self-reported fruit intake. A revised program (incorporating a greater variety of recipes, additional blogs, and new videos) may encourage greater engagement and result in increased confidence and knowledge in other targeted areas.

**Keywords:** university students; food skills; cooking program

### Ethics Declaration

—

### Financial Support

This work was supported, in part by the Deakin and BUPA Healthier University Fund.

### References

1. Wilson CK, Matthews JI, Seabrook JA, Dworatzek PDN (2017) *Appetite* **108**, 270–276.
2. Whatnall MC, Patterson AJ, Chiu S *et al.* (2020) *Nutr & Diet* **77**, 331–343.