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# Culinary nutrition in the United Kingdom: nationwide survey of skills, experiences and education needs of students of nutrition and dietetics

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Culinary nutrition (encompassing culinary medicine) is an emerging field that is gaining traction as potential means to mitigate the global disease burden linked to unhealthy dietary patterns, by fostering practical culinary and nutrition literacy among health professionals. Culinary nutrition programmes have shown promise in improving dietary behaviour, cooking confidence, and nutrition counselling skills among students and professionals<sup>(1)</sup>. There is a recognised need for the development and evaluation of standardised culinary nutrition training for nutrition and dietetics (N&D) professionals and there is limited understanding regarding the preparedness of the next generation of nutritionists and dietitians in delivering effective culinary nutrition programmes<sup>(2)</sup>. This study aimed to investigate the cooking and food practices of students of N&D in UK to assess their capabilities and to inform the requirements of future educational curricula.

Between May and June 2023, an online survey was circulated to all UK universities delivering AfN- or BDA-approved nutrition or dietetics programmes, for subsequent circulation to students. It contained validated questionnaires on cooking and food skills confidence, meal preparation frequency, food engagement, and completion of curriculum-based cooking sessions. King's College London provided ethical approval. Kruskal-Wallis H tests and hierarchical multiple regression modelling with adjustment of relevant covariates were conducted using SPSS Statistics v29.0.2, with a significance threshold of  $p < 0.05$ .

There were complete responses from 213 students of N&D from 27 UK universities. Respondents mean age was  $28.1 \pm 9.4$  years, 194 (91.1%) were female, and 132 (62.1%) were white ethnicity. The cohort comprised 57 undergraduate and 95 postgraduate nutrition and 32 undergraduate and 29 postgraduate dietetic students. Students' average confidence scores were  $84.3 \pm 14.7$  (out of 98) for cooking skills and  $112.0 \pm 20.7$  (out of 133) for food skills, with an average food engagement score of  $40.2 \pm 4.7$  (out of 50). 95 (44.6%) students reported cooking a main meal daily, and 141 (66.2%) had completed an average of  $14.2 \pm 16.4$  practical cooking session hours as part of their degree program. Undergraduate dietitians completed the least time of cooking sessions at 3.00h, versus undergraduate nutritionists at 9.00h ( $p = 0.044$ ) and postgraduate nutritionists at 10.00h ( $p = 0.025$ ). Hierarchical regression models accounted for 18.8% of the variance in cooking skills confidence and 27.7% in food skills confidence. Notably, meal preparation frequency and food engagement significantly contributed to the explained variance in the respective models ( $p < 0.001$ ), even after adjusting for demographic factors such as gender and ethnicity.

Students of N&D in the UK exhibit higher cooking and food skills confidence compared to the general population<sup>(3)</sup>. Coupled with their inherent knowledge of nutritional science, they are wellpositioned to implement future culinary nutrition interventions that could enhance public dietary behaviour and health outcomes. However, to ensure the future workforce is ready, there is a need for curriculum consensus.

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## References

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