# Leading Change in Nutrition Education and Training

## Leading Across Systems and Organisations

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**The aim of this project is to lead change in UK nutrition education and training through action-oriented research. In the initial study phase, a quantitative synthesis of nutrition-related education in the current, GMC-approved postgraduate curriculums was carried out, identifying nutrition-related learning obejctives (NLOs)[1]. Our results highlighted a need for change. With the help of the NNEdPro Global Centre for Nutrition and Health, we aim to incorporate and evaluate medical nutrition education resources and implement these within training, to ensure that all trainees feel competent to recognise, manage, and discuss nutrition-related aspects of health and disease with patients.**

Suboptimal nutrition is a major cause of morbidity and mortality in the UK and globally. Although patients cite physicians as trusted information sources on diet and weight loss, studies suggest that the delivery of nutrition-related care is hindered by insufficient nutrition education[2]. Although an emphasis on undergraduate nutrition-related medical education is essential for trainee doctors, continued learning and professional development is required throughout postgraduate training[3].

Learning objectives set out in postgraduate curriculums form the essential component upon which doctors will be taught, trained, and assessed throughout their training programme[4]. Postgraduate programmes are required to ensure that doctors have sufficient experience, teaching, and training—including attending organised education sessions, training days, and courses—to meet the requirements of their GMC-approved curriculum[3,4]. Workplace-based assessments (WBAs) and postgraduate examinations must also be mapped to the requirements of the curriculum[4,5].

For trainees to be effectively taught, trained, and assessed in nutrition-related competencies, a sufficient number of nutrition-related learning objectives must be consistently and mindfully incorporated into postgraduate curriculums.

## KEY FACTS

> Suboptimal nutrition is a major cause of **morbidity and mortality** in the UK[6]

> **63%** of adults and **1/3rd** of children leaving primary school in the UK are classified as overweight or obese[7]

> The cost of disease-related malnutrition alone is over **£13 billion**[6]

> **70% of doctors in the UK received less than 2 hours** nutrition training whilst at medical school[2]

## Method

Between August and October 2020, one investigator (L.G.) independently reviewed the published curriculums of 43 UK postgraduate medical training programmes. Only approved curriculums, published on the GMC website as the most up-to-date, current version, were included in the analysis. The only exception to this was the curriculum for the Foundation Training Programme, which was obtained from the Foundation Programme website in a similar standardised format. NLOs were identified using four keywords: '**nutrition**', '**diet**', '**obesity**', and '**lifestyle**'. Keywords that formed a stem for another word or phrase, e.g. nutrition(al assessment), diet(ician), (parenteral) nutrition, were identified using this method and included in the analysis. Where a keyword was used in a titled section followed by a number of objectives, this was designated as a 'module'. Where possible, objectives were coded as **knowledge**–, **skill**–, or **behaviour**–based (GPC Framework) and Domains 1–4 (GMP Domain Framework). This was done only for objectives in which the curriculum explicitly assigned this information – no attempts were made to subjectively code objectives that had not been formally categorised within the curriculum.

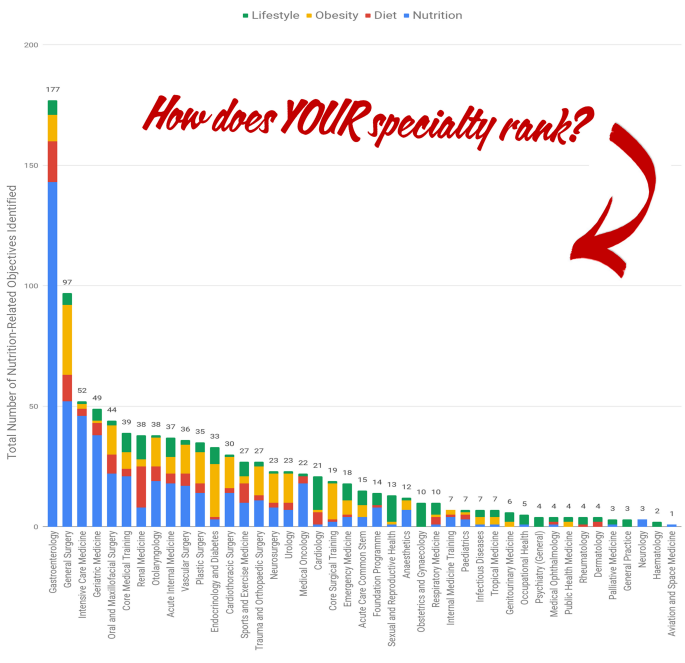



***Figure 1.*** *Total number of nutrition-related learning objectives identified per specialty (descending order), and the proportion of keywords used.*

## Results

All 43 curriculums had at least one NLO identified, with a median of 15 NLOs per curriculum. There was considerable variation between curriculums in the number of NLOs identified (figure 1), with a range of 176 NLOs. Eleven specialties (25.6%) had five or less NLOs identified, including General Practice. Using the GPC framework to understand the specific contexts in which nutrition-related objectives appear within curriculums, there was a predominance of knowledge-based outcomes. The communication skills and professional behaviours fundamental to effective patient care and successful behaviour change in nutritional care remain in the minority. A further keyword search revealed that less than 0.1% of all identified objectives were related to communication skills and behaviour modification strategies.

## KEY FINDINGS

> **The inclusion of nutrition-related learning objectives is highly variable across curriculums**

> **25% of training programmes had fewer than five nutrition-related learning objectives**

> **Less than 0.1% of identified objectives related to communication skills or behaviour modification**

> **Emphasis is placed on knowledge-based outcomes, at the expense of communication skills and professional values**

## LEADING CHANGE

**NNEdPro Global Centre for Nutrition and Health**

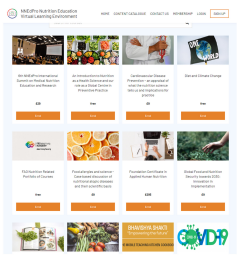
Advancing and implementing nutrition knowledge to improve health, welbeing and society

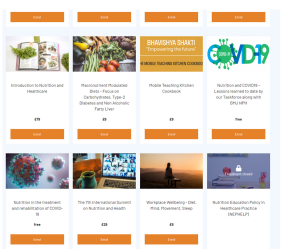
Nutrition is central to health and disease, and addressing the determinants of suboptimal diet is key to addressing inequalities in healthcare. All doctors must be equipped to discuss diet with patients in a sensitive and informed way, and this is highlighted in the long-term NHS goals[7] and underpinned by the UN Decade of Action on Nutrition (2016–2025).

With the NNEdPro NEPHELP (Nutrition Education Policy in Healthcare Practice) initiative we aim to evaluate medical nutrition education resources and incorporate these systematically into training curriculums, to ensure that all trainees feel competent to recognise, manage, and discuss nutrition-related aspects of health and disease with patients. This is essential in addressing long-term NHS goals, as well as supporting the development of nutrition champions, who can advocate for nutrition to undergraduate students, in order to support a further paradigm shift. This top-down approach is fundamental to the apprenticeship-style learning for medical students and trainees.

## The Intervention

Starting early 2022, we are aiming to run a pilot programme rolling out a tailored virtual learning environment (VLE) nutrition training programme to a select number of specialty doctors across the country.





Specialties identified as performing particularly poorly in the initial curriculum assessment will be approached first. If the VLE training is well received, we will work towards integrating these objectives into curriculums with mandatory training and assessment. We will involve organisations such as the General Medical Council and Royal Colleges to instigate the change. Written feedback from participating doctors and governing organisations will be collected and acted on in order to identify an effective and realistic strategy for the integration of nutrition-related learning objectives into postgraduate medical curriculums.

**By providing a tailored virtual learning platform, we can reduce the burden on individuals, Colleges, or Trusts in finding material which directly addresses and supports new nutrition-related learning objectives across curriculums.**

## WHY IT MATTERS

> Evidence of the need for **renewed focus** on nutrition education and training, particularly **communication skills** and professional **behaviours**

> Action-oriented research can **address identified barriers** which hinder doctors in recognising and effectively treating malnutrition

> Addressing gaps in nutrition-related education is a **matter of patient safety**


**References**

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