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Letter to the Editor

Is nutrition education in medical schools a Poe's Purloined Letter?

Dear Editor

The centrality of nutrition to maintain people's health is self-evident, nevertheless, there continue to be reports that nutrition education in medical schools worldwide is inadequate [1]. To promote awareness on nutrition education in European medical schools, ESPEN launched the Nutrition Education in Medical Schools (NEMS) Project in 2017. As a result, Cristina Cuerda and NEMS' colleagues published a position paper in Clinical Nutrition proposing a minimum curriculum content in nutrition that could serve to improve training future doctors and proposes strategies to overcome the main barriers to the implementation thereof in European universities [2]. Moreover, the NEMS Project led to signing the Manifesto for the Implementation of Nutrition Education in Undergraduate Medical Curriculum on January 23, 2020. The Manifesto implies a moral commitment for ESPEN societies to promote nutrition education and highlights the fact that nutrition education in medical schools should be mandatory, subject to evidence-based nutrition, and should include three domains (i.e. Basic nutrition, Applied or public health nutrition and Clinical nutrition) [3].

Consequently, we may pose the following question: Is this kind of initiative sufficient to move forward in medical education in nutrition, or can nutrition be considered as a 'Purloined Letter' (i.e. hiding in plain sight) in medical education? This question is legitimate since, for at least the past three decades, several different efforts have been advocated for improving medical nutrition education [4] without substantial evidence of success. Among the most cited reasons for this failure in the lack of priority for nutrition education are the lack of faculty to provide nutrition education, poor application of nutrition science to clinical practice and poor collaboration with nutrition professionals [5]. In my opinion, one of the main underlying causes for this failure is the absence of a common understanding of clinical nutrition as a discipline. Clinical nutrition is considered to be the application of the science of nutrition in the clinical field, as it is clearly stated in the Manifesto: "Nutrition is a broad, interdisciplinary field, encompassing a large variety of scientific, cultural, social and political aspects. Human Nutrition is identified by three major domains, namely Basic, Applied and Clinical Nutrition". This implies that clinical nutrition is understood as being a sub-discipline of human nutrition and not as an autonomous discipline. On the contrary, I think that clinical nutrition is an autonomous discipline: an outcome of the integration of medicine and nutrition, underpinned by a primary transformation of the "nutrient" concept. This means that clinical nutrition has its own objective, methods and specific domain of knowledge, and as such, it should be taught (for a comprehensive explanation, see the epistelomogical analysis published in Clinical Nutrition ESPEN [6]). I believe medical schools will naturally incorporate clinical nutrition and other related sciences in their curricula only once clinical nutrition attains its rightful place as an autonomous science. In the meantime, patients will continue to receive inadequate nutritional care, and healthcare systems will continue to incur the economic burden of disease-related malnutrition.

Despite the fact that there is a worldwide need for doctors to understand the indelible relationship between nutrition and health, each geographic region has unique nutritional challenges and opportunities. Jennifer Crowley and her colleagues reported deficiency of nutrition education in physicians' training worldwide [1] in a systematic review published in *The Lancet Planetary Health* journal. They showed that, despite the centrality of nutrition to a healthy lifestyle, medical students are not supported in providing high-quality and effective nutritional care. These findings where obtained from 24 studies throughout the USA, Europe, the Middle East, Africa, Australia, and New Zealand. All geographic regions were represented except for Asia and Latin America.

In Latin America, a region particularly affected by malnutrition and hunger, the status of nutrition education in medical schools is similar to the worldwide situation, as we recently showed in an online survey of 21 medical schools and 854 final-year medical school students from 11 Latin-American countries.

We surveyed medical schools on curricular content and students on nutrition, self-perceived proficiency and knowledge. We found that medical school students consider that nutritional care is part of their responsibilities, but they lack the level of education and training required to address nutrition-related issues in their patients. Self-perceived knowledge surveyed in three different domains including basic nutrition, public health nutrition, and clinical nutrition varied from 25% to 99%. Moreover, we found a mean of 20 h (range: 0–80) dedicated to nutrition education, and a large heterogeneity in nutrition education among the medical schools surveyed. These findings are similar to those found by Cuerda et al. in a European survey [7]. Thus, it is clear that the interest among medical students in nutrition is uniformly high worldwide [1]. What is at stake is keeping medical students' keen interest in nutrition from waning during their clinical practice. Beyond the possibility of intervening in diet as a modifiable lifestyle factor, physicians also have a unique opportunity to intervene in the control of disease-related malnutrition.

In view of addressing this problem, the human rights-based approach can give an opportunity to raise visibility and awareness of this problem. In the International Declaration on the Right to Nutritional Care and the fight against malnutrition signed in Cartagena, Colombia on May 3, 2019, nutritional care has been defined as

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a human right [8]. Among the 13 principles that the Declaration states to provide a coherent framework for promoting this human right, nutrition education is conceived of as a fundamental principle for fulfilling the right to nutritional care and the fight against malnutrition. This approach is a fundamental strategy in determining the roles and obligations of different stakeholders (i.e. policy makers, health institutions, health professionals and medical school directors).

In summary, it is my viewpoint that in order to avoid the risk of nutrition continuing to be accounted for as a 'Poe's Purloined Letter' in medical education, initiatives such as NEMS should aim to address clinical nutrition as an autonomous science and insist it be included in the core of human-right based approach actions.

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Diana Cardenas*

Faculty of Medicine, Research Institute on Nutrition, Genetics and Metabolism, Universidad El Bosque, Bogota, Colombia

* Calle Lago Zurich 243, Edificio Budapest, 28D, Ampliación Granada, Miguel Hidalgo, 11529, Ciudad de México, Mexico.
E-mail address: dianacardenasbraz@gmail.com.

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