



European Medical Students' Association

Association Européenne des Étudiants en Médecine

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Nutrition in Medical Education

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The European Medical Students' Association (EMSA) represents medical students across Europe. We envision a healthy and solidary Europe in which medical students actively promote health. EMSA empowers medical students to advocate health in all policies, excellence in medical research, interprofessional healthcare education and the protection of human rights across Europe.

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Problem statement.

Nutrition is a complex discipline that integrates fields including the clinical, statistical-epidemiological, psychological, educational, genetic, and biochemical aspects of food intake (Council of Europe, 2002). According to WHO, nutrition is defined as the processes in which food intake affects the body's health. It plays an essential role in disease prevention and treatment, as an adequate provision of nutrients, beginning in the early stages of life, is crucial for optimal health and the development of mobility, endurance, and cognitive abilities. Healthy dietary habits have a significant role on newborn, child, and maternal health, but may serve as a protective factor against non-communicable diseases such as obesity, diabetes, cancer, and cardiovascular diseases, thus enabling longer life expectancy (WHO, 2019). On the other hand, malnutrition involves the deficiencies, excesses and imbalances in the energetic and/or nutritional intake, which represents a threat to human health (WHO, 2019).

The role of nutrition in medical education is to provide knowledge of healthy nutrition and the relationship between malnutrition and resulting diet-related non-communicable diseases, to develop an understanding of the relationship between nutrients in the diet and the growing number of drugs that are used, and to prepare medical practitioners to understand the nutritional problems associated with chronic parenteral and enteral feeding (Institute of Medicine (US) Food and Nutrition Board, 1989). Nutrition education not only empowers individuals to adapt good health practices with food but also teaches them what to do and how to act to improve nutrition thus aiding in the adaptation of nutrition practices that promote good health (FAO, n.d.). Therefore, nutrition education represents a major component in health promotion, as it aims to provide knowledge and empower lifestyles, with a special emphasis on food intake.

The public looks towards Medical Health Professionals, including doctors, for nutritional advice, as they are often perceived as experts in nutrition (Chung 2014). Thus, they carry an important social responsibility in advising patients on their diet and nutritional uptake (Chung 2014). In spite of this, there is great neglect regarding the prevention, diagnosis, and treatment of malnutrition (Cuerda 2019). This is also reflected in medical education as nutrition is insufficiently incorporated, regardless of country, setting, or year of medical education (Crowley 2019). This problem is not only perceived by medical education directors and faculty but also by graduating students who do not feel sufficiently trained to provide evidence-based nutrition care to patients.

Both medical school teachers and students believe that the nutrition education provided in the curriculum is insufficient to adequately prepare them to manage nutritional issues (Cuerda 2019). In the literature, there are out-of-date and unsupervised recommendations regarding the contact hours of nutrition education (Cuerda 2019). For example, The National Academy of Sciences, recommended a minimum of 25 contact hours of nutrition education, whereas the American Society for Nutrition recommended 44 (Cuerda 2019).

The status of nutritional education underlies a high heterogeneity between and within countries (Cuerda 2019). In fact, all studies that looked at the level of nutritional education concluded that

medical students in the United States and Europe do not receive this level of education, with a few exceptions (Cuerda 2019).

Due to the lack of regulations and recommendations on the amount of nutrition education, it is often left up to the discretion of individual medical schools how big of a part nutrition education takes up in the curriculum. Additional factors limiting the integration include curriculum crowding, scarcity of nutrition advocates and specialist teachers (Crowley 2019).

Our view. Aim

Improper approaches to nutrition are a significant risk factor for many of today's most common chronic diseases, such as non-communicable diseases (cardiovascular diseases, diabetes, obesity, and different types of cancers, notably colorectal cancer). Therefore nutrition education is necessary for the training of healthcare professionals, especially medical students. However, as EMSA, we believe that nutrition is not adequately covered in medical schools' curriculums. In consequence, health care practitioners are not sufficiently prepared to enlighten patients on the details of a healthy lifestyle. According to WHO, many social and economic factors interact in a complex manner to shape individual dietary patterns; therefore, promoting a healthy food environment requires the involvement of multiple sectors (WHO, 2020). As part of the healthcare sector, medical students need to learn nutrition to promote a healthy food environment.

Our aim in this policy paper is to draw attention to the need for improved nutrition education among medical students. We consider that the practices of medicine and how it conveys are evolving; therefore, medical education should change to reflect this. Nutrition education as part of their comprehensive medical education programs should be provided to European medical students. One good example regarding the topics that should be taught and to what depth they should be taught is the National Competence-based Learning Objectives Catalogue for Undergraduate Medical Education (NKLM) (www.nklm.de). EMSA recognizes that nutrition-related medical problems are an ever-growing threat to public health in the twenty-first century. With this perspective, in EMSA events, we promote a healthy lifestyle through the EMSA Healthy Handbook. Furthermore, through ESPEN's (European Society for Clinical Nutrition and Metabolism) and ENHA's (The European Nutrition for Health Alliance) events and activities, we are promoting healthy lifestyles and the importance of Nutrition in Medical Education.

EMSA states that improved nutrition education and training will equip health professionals with the necessary tools to encourage communities to foster sustainable food environments that enable healthy choices for themselves and their families thus encouraging the adaptation of good health practices that empower generations.

Recommendations

EMSA calls on Medical Schools and Universities to:

- Prioritise research that examines the effects of nutrition on health and methods of nutrition-related public health practices,
- Provide healthcare students with adequate knowledge about the impact of nutrition and physical activity on health and non-communicable diseases;
- Improve the medical curriculum with theoretical and practical lessons regarding Nutrition and include over 37 hours of content;
- Update regulations and recommendations on the amount of nutrition education;
- Train the teaching staff of medical nutrition education;
- Incorporate nutrition education into the clinical years of medical school that the students can see the direct correlation between nutrition principles and medical treatment;
- Assess the current understanding of nutrition education amongst students;
- Include nutrition education and patient communication in the curriculum of, Psychiatry, Pediatrics, General Medicine, Gastro-intestinal Medicine, Family Medicine, Cardiology, Dermatology to the curriculum;
- Integrate interprofessional education and focus on the connection between physicians and nutritionists;
- Encourage the transfer of nutritional and health advice to future patients;
- Encourage a healthy lifestyle by providing medical students with physical activity facilities and healthy options in cafeterias;
- Offer nutrition counselling to students.

EMSA calls on EU institutions and National Governments to:

- Provide funding and grants for medical researches on nutrition and physical activity;
- Invest to organisations researching nutrition education in medical schools;
- Organise consensus statements about clinical care and care quality control ;
- Give recommendations on appropriate Nutrition education contact within the medical curriculum;
- Work on Nutrition, Obesity and Physical Activity (NOPA) to give proper monitoring to the progress in improving nutrition, physical activity and preventing obesity in the European Union (EU);

EMSA calls on Medical students organisations and other health-related NGOs:

- Encourage cooperation between organisations with common nutrition goals, such as public health, kinesiology, nutrition, psychology, social marketing, education, civil rights, environment, and sustainability to promote a healthy lifestyle;
- Develop nutrition and health educational programmes and trainings for medical students;
- Formulate policies and advocate stakeholders and variate sectors for enhanced nutrition in medical education;
- Organise campaigns and events related to nutrition and health education for medical students alike ;

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- Lead by example in adopting a healthy lifestyle.

EMSA calls on EMSA Faculty Member Organisations (FMO) and EMSA members to:

- Organise lectures and workshops in Nutrition and Healthy lifestyle;
- Raise awareness to Nutrition Education by social media contents and taking part in the campaigns;
- Seek out more knowledge and information regarding Nutrition and health;
- Get involved in Nutrition and Health programs that are organised by other institutions, such as government organisations or non-profit organisations;
- Give feedback on the adequacy of nutrition education to the education supervisors at your local medical schools.

EMSA calls on medical practitioners and professors to:

- Focus on patient-centred care;
- Focus on the mental health of patients with metabolic disorders related to nutritional issues;
- Inform patients on healthy lifestyle's advantages;
- Recommend healthy nutrition to their patients according to the treatment they receive;
- Respect patients' nutritional choices and bear in mind the cultural differences and demographic variabilities when giving nutritional advice, thus promote equity;
- Teach medical students how to approach patients with nutrition issues through their practices;
- Be educated on the updates of the impact of nutritional choices to patients with different illnesses, disorders and syndromes.

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