Irish Section Meeting, 19-21 June 2013, Childhood nutrition and obesity: current status and future challenges

Evaluation of a novel nutrition education intervention for medical students

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Tomorrow's doctors need to be able to manage the growing burden of nutrition-related illness. Up to 40% of hospital inpatients are malnourished⁽¹⁾and over half the Irish population is either overweight or obese. Whilst the importance of nutrition education in the medical curriculum is widely acknowledged^(2,3), current nutrition education for medical students is usually fragmented, unstandardized, and unintegrated.

The medical school at University College Cork developed an innovative 'point of practice' medical nutrition elective module (student-selected module or SSM) for 2nd year students.

Format consisted of lectures delivered by specialist clinical dieticians attached to an affiliated teaching hospital. Content focused on practical issues related to diet rather than nutritional biochemistry. Topics covered a wide range of clinical areas including diabetes, nutritional assessment and cardiovascular disease. Forty-nine students enrolled on the module. Students also gave presentations on key nutritional messages to school-children as part of an Outreach component.

A questionnaire based on course content was construct-validated against key clinical learning outcomes and administered at the beginning and end of the module. A similar number of age and gender matched controls also completed the questionnaire. Four main areas were assessed: students' perceived knowledge; students' knowledge based on a 19-question knowledge 'test'; skills; and students' attitudes to nutrition education.

Forty-seven students (96%) completed the questionnaire. The primary outcome measure consisted of change in knowledge, attitude and skills scores following intervention. The number of scores of 'good' or 'very good' in students' self-perceived nutrition knowledge, assessed post-intervention, increased by 134% from the baseline level. Mean knowledge score increased significantly ('baseline' score –9.5 vs. 'post-intervention' –15.5), while the number of 'good or 'very good' answers in the nutrition skills section increased by 192% from baseline level. Similar improvements were not observed in the control group. Students valued the opportunity to learn nutrition from clinical dieticians.

This study highlights medical students' interest in and appreciation of nutrition education. Ideally, nutrition education should be horizontally and vertically integrated throughout the medical programme. Technology-enhanced learning offers opportunities for blended nutrition education in a crowded curriculum. The challenge will be to motivate and educate medical professionals to integrate nutritional knowledge into daily clinical practice, acting as mentors and role models for tomorrow's doctors.

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