

Perceptions of Gulf Medical University medical graduates regarding nutrition education in the undergraduate medical curriculum

Kadayam Guruswami Gomathi^{1*}, Syed Ilyas Shehnaz², Nelofer Khan¹

¹Department of Biochemistry, ²Department of Pharmacology, Gulf Medical University, Ajman, UAE

*Presenting Author

ABSTRACT

Objective: To assess perceptions of GMU medical graduates regarding nutrition education in the undergraduate medical curriculum.

Materials and Methods: 75 GMU medical graduates (years of graduation 2005-2009) were invited to participate in an anonymous online survey in May 2012. The questionnaire was designed with the help of medical education experts, faculty involved in nutrition education and IT experts, validated and pilot-tested. Data was collected in MS Excel and results expressed as percentages.

Results: 42 medical graduates responded to the survey. 62% were females, 11 are working in the UAE while others are based in other countries including India, USA, UK and other GCC countries. 31% were working as general physicians while the rest were specialists/ specializing in various medical disciplines. The respondents mentioned receiving nutrition-related instruction in the pre-clinical years (80%) and clinical years (50%). Courses in which Nutrition-related topics were learnt were identified as Community Medicine (59%), Biochemistry (47%), Physiology (23.5%), Pediatrics (35%) and Internal Medicine (29%). The main teaching-learning methods adopted were lectures and case-based discussions. Nutrition education for the doctors was perceived as "very important" by 73.8% and "fairly important" by 23.8% of the respondents. 39% mentioned using nutrition-related knowledge daily. However 73.5% felt they had not received adequate nutrition instruction in relation to their past or present professional work. Areas requiring more instruction were identified as Clinical Nutrition (73%), Nutrition in primary care settings (57%) and Evidence-based nutrition (50%).

Conclusion: GMU medical graduates perceive Nutrition education to be very important for doctors and feel that more nutrition education is needed in the undergraduate medical curriculum, especially in the areas of clinical nutrition, nutrition in primary care settings and evidence-based nutrition.

Key words: nutrition education, undergraduate medical, medical curriculum

INTRODUCTION

UAE and the other Gulf countries have undergone a period of rapid transition from the traditional to affluent and modern economies in the past 30 years. Traditional methods of food preparation and consumption have changed to more westernized diets including more fast food, resulting in an increase in obesity in the society. Further, there have been lifestyle modifications, and a more sedentary lifestyle has been adopted by most residents of UAE. This has resulted in a dramatic rise in lifestyle-related diseases including diabetes and cardiovascular disease. Primary physicians, in turn, find themselves treating more lifestyle

diseases and advising the patients regarding nutrition and the beneficial nutritional modifications.

Studies from the American Dietetic Association indicate that physicians are considered among the most credible sources of nutrition information by the patients even though most patients get their nutrition-related information from the media¹. All medical schools across the world have nutrition and nutrition-related topics in the curriculum. A survey carried out about a decade ago in the medical schools across the US revealed insufficiency of nutrition education² and a number of steps were taken in the various

medical schools to increase the nutrition-related education, some of which also demonstrated positive results³. However, a recent update has revealed that even in 2010, the amount of nutrition education that medical students in the US get continues to be inadequate⁴.

In the UAE, there is an increasing awareness of the high incidence of lifestyle diseases and the role of nutrition in preventing and managing these diseases. At the Third Arab Conference on Nutrition held in Abu Dhabi in December 2007, an Abu Dhabi declaration was announced to promote healthy nutrition in the Arab countries. Foremost among the recommendations was the training of health workers with special emphasis on training of physicians in assessment, prevention and control of nutritional problems⁵. There are, however, no data available regarding the status of nutrition education in the UAE on the World Health Organization website⁶. The UAE Ministry of Health opened, at the beginning of 2010, the first specialized center for Diabetes and Obesity in the Sheikh Khalifa Bin Zayed Hospital in Ajman which has received more than 4000 (patient) visits in the first five months of opening⁷, further underscoring the prevalence of lifestyle diseases in the UAE.

While there are five medical schools in the UAE, there is no study regarding the nutrition education received by the medical students. The objective of this study was to assess perceptions of GMU medical graduates regarding nutrition education in the undergraduate medical curriculum.

MATERIALS AND METHODS

Study population: Graduates of the Gulf Medical University, Ajman who had completed their MBBS degree requirements and graduated between the years 2005 and 2009.

Survey instrument: A questionnaire to assess student perceptions regarding nutrition in the undergraduate medical curriculum was designed with the help of medical education experts and faculty

involved in nutrition education. It was converted into an online survey with the help of IT experts, validated and pilot-tested on five medical graduates. While many questions regarding demographic details were close-ended, those regarding nutrition education had option for free responses.

Methodology: 75 GMU medical graduates were invited by email to participate in an anonymous online survey using survey monkey in May 2012. A reminder email was sent one month later. Data was collected in MS Excel and results are expressed as percentages.

RESULTS

Only 42 medical graduates distributed across graduation years 2005-2010 responded to the survey, giving a response rate of 56% (Figure 1). 62% of the respondents were females and 38% males. Respondents were aged between 27 and 32 years and the average age was 29.3 years. Of the 42 respondents, 11 are based in the UAE while the rest are working in other countries including India, USA, UK and other GCC countries (Figure 2). 31% of the respondents were working as general physicians while the rest were either specializing or were specialists in various disciplines.

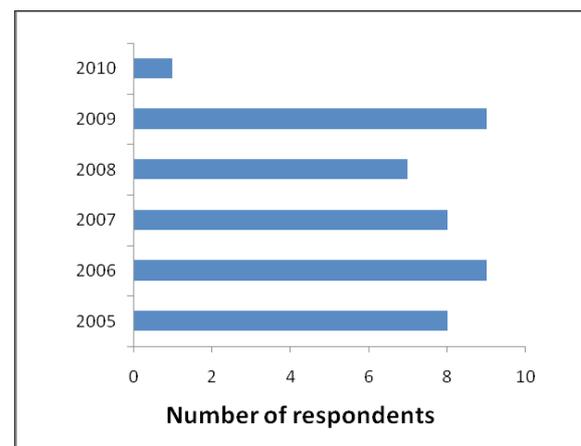


Figure 1. Number of respondents and their years of graduation

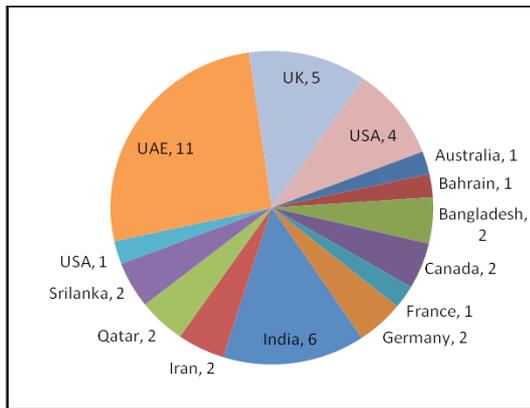


Figure 2. Countries where the respondents are working

Regarding nutrition education, the respondents mentioned receiving nutrition-related instruction in the pre-clinical years (80%) and clinical years (50%) (Figure 3). Courses in which nutrition-related topics were learnt, were identified as Community Medicine (59%), Biochemistry (47%), Physiology (23.5%), Pediatrics (35%) and Internal Medicine (29%).

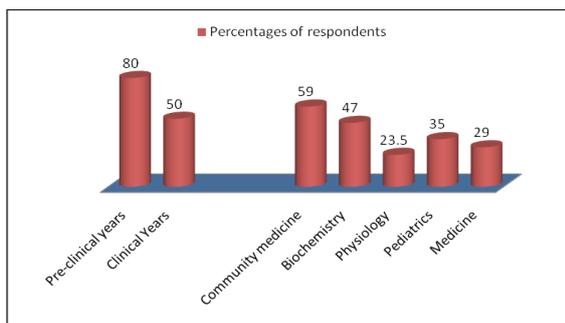


Figure 3. Years and disciplines in which nutrition or nutrition-related topics were learnt.

The main teaching-learning methods adopted were identified as lectures and case-based discussions. Nutrition education for the doctors was perceived as “very important” by 73.8% and “fairly important” by 23.8% of the respondents (Figure 4). 39% mentioned using nutrition-related knowledge daily.

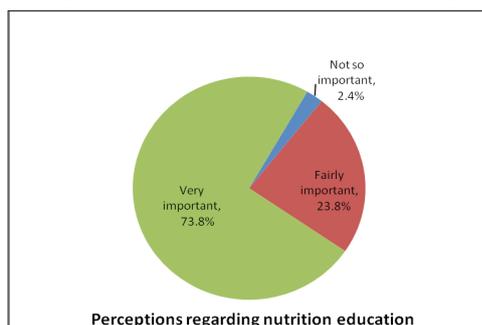


Figure 4. Perceptions of respondents regarding importance of nutrition education

However 73.5% felt they had not received adequate nutrition instruction in relation to their past or present professional work (Figure 5). Areas requiring more instruction were identified as Clinical Nutrition (73%), Nutrition in primary care settings (57%) and Evidence based nutrition (50%) (Figure 6).

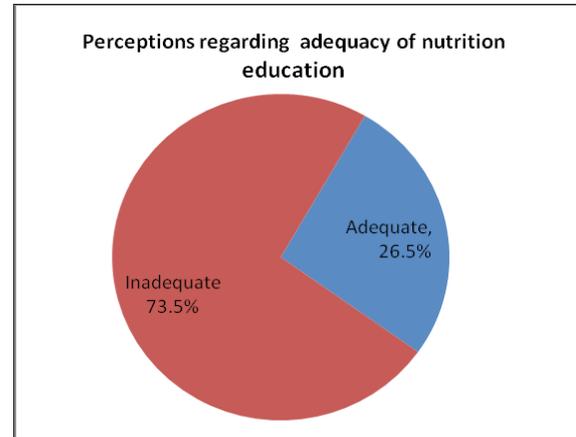


Figure 5. Perceptions of respondents regarding adequacy of their nutrition education in relation to their work.

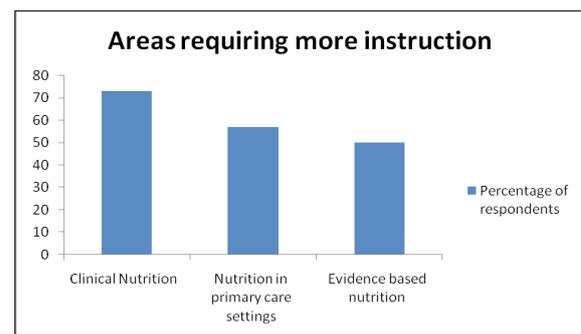


Figure 6. Nutrition-related areas identified as requiring more instruction

DISCUSSION

The results show that about 75% of the GMU graduates go to work in other parts of the world and many of them go on to specialize further, which was the reason behind conducting the survey online. A response rate of 56%, though low, is quite expected since it is completely voluntary and there was no special incentive to participate. It is done entirely due to goodwill. Most of the respondents mentioned studying nutrition-related topics in the pre-clinical years and some in the clinical years too. Respondents mentioned learning nutrition-related topics in community medicine and biochemistry courses while some also identified physiology, pediatrics and

medicine as courses where they learnt nutrition. This corresponds well with the distribution of nutrition-related topics in the traditional discipline-based curriculum at GMU. Most nutrition-related topics are dealt with in Biochemistry and Community Medicine. Teaching-learning methods used to learn nutrition were identified as only lectures and case-based discussions. This again corresponds well with the teaching-learning methods that were used in the traditional curriculum in GMU.

Most respondents felt nutrition education to be very important. However, almost the same number (3 out of 4) also felt that they had not received adequate nutrition instruction in relation to their past or present work. This finding, though disturbing, is not unexpected. Studies from the US also suggest that a large number of resident physicians (62%) report deficits in nutrition knowledge though they perceive nutrition counseling as a priority⁸. A lack of confidence in basic nutrition counseling due to perceived inadequate nutrition training in the medical school has also been reported by physicians⁹. About half the graduating medical students were found to rate their nutrition knowledge as inadequate¹⁰.

Areas which were identified by the GMU medical graduates as those requiring strengthening of instruction were Clinical Nutrition, Nutrition in primary care settings and Evidence-based nutrition. Similar topics have been identified in the study from US where self-reported proficiency in the various nutrition-related topics was found to be lowest for nutrition and disease management, micronutrients and alternative and complementary medicine¹¹.

CONCLUSION

Most GMU medical graduates perceive Nutrition education to be very important for doctors and feel that more nutrition education is needed in the undergraduate medical curriculum, especially in areas of Clinical Nutrition, Nutrition in primary care settings and Evidence based nutrition.

LIMITATIONS OF THE STUDY

The survey was carried out online and all results are based on responses of the graduates. The response rate was only 56%, due to the small number of respondents. The survey questionnaire is however still available online and reminders are being sent to the graduates.

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