

Department of medical education

Introducing medical students to global health issues: a Bachelor of Science degree in international health

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Many people have struggled to produce a definition for the term globalisation. A huge debate has also taken place as to the relative advantages and hazards caused by the increased flow of goods, people, and information between nations, and their effects on health. One of the clear examples of gain is the growing interest by medical students around the world in issues affecting health and health care, not only in their own nations, but also across the world.^{1,2} Student organisations involved in global health have been established in many countries, including the UK. As individual organisations, as well as through their federation—the International Federation of Medical Students' Associations—these groups have led the way in seeking out more information on global health, both within their curriculum and outside it.^{1,2}

The Royal Free and University College Medical School (RUMS) is one of the largest medical schools in the UK, with about 350 students per year. Most of the basic science teaching takes place at University College London (UCL), one of the component parts of the School. Student intake largely comprises school leavers, who may have taken a gap year, although an increasing proportion of students have taken a previous degree, or worked, in another discipline. The medical degree, the MBBS, comprises a 5-year course. However, most medical students in the UK take an additional year to study one subject in depth, in pursuit of a Bachelor of Science (BSc) degree, which is termed an intercalated BSc. RUMS, with several other UK schools, has adopted a universal 6-year course, for which all students are required to choose an intercalated BSc. The content and timing of this BSc year has traditionally been a basic science topic studied after the second year or preclinical part of the course. At UCL, anatomy, neurosciences, cell biology, and physiology are especially popular. But increasingly, perhaps because of students' anxieties about the restrictions of training after graduation, more unorthodox choices are being made. Thus, intercalated BScs in medical anthropology and history of medicine are becoming a common choice, and also attract students from other medical schools in the UK.

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Intercalated BSc in international health

The International Health and Medical Education Centre at UCL (www.ihmec.ucl.ac.uk) was created in 2000, with the aim of introducing issues of global health into the medical curriculum.^{1,2} It was formed as a result of pressure on the Deacery by students from the Medical Students International Network, who lobbied vigorously for the introduction of international health into the medical curriculum.

Early initiatives included introduction of special study modules on global health, infectious diseases, and maternal and child health into the first year of the course. We also used the fifth-year elective period to raise issues about health and health care in an international context, preparing the students for the elective, which generally takes place in a health care or educational institution in a developing country. Yet, the first few months of activity in this Centre left both the teachers and the students feeling that these were somewhat less than bite-size portions—we needed something bigger to get our teeth into.

Therefore, the intercalated BSc in international health was launched in September, 2001, with the first intake of 15 students. An external grant from a charitable foundation provided most of the costs of running this first year. Since one of the requirements of the grant was that the course should be a national, and not just an institutional, resource, seven of the first intake of students came from UK medical schools other than RUMS.

The modules

The BSc was planned with three compulsory and two optional course units, plus a project.

Poverty, inequality, and health

Because of the effect of poverty on health, the first compulsory module is central to the teaching of international health. The course provides an introduction to concepts of development, poverty, and inequality, and the underlying local and global forces. Definitions of poverty are crucial, and students are encouraged to look beyond the dollar-a-day definition used by the World Bank. Poverty measured in this way, as gross domestic product per person, does not relate well to health indicators such as life expectancy and infant mortality. Some countries with annual gross domestic product per person lower than US\$3000, or even \$1000, have life expectancy similar to that of richer countries. The course assesses the policies used by these countries to achieve such good indicators with meagre resources.

The study of poverty has a crucial role, but is only part of the course. An important feature of the module addresses theoretical perspectives of development, which means that students need to study political

ideology—a topic that is not commonly part of the intellectual diet for most medical students. They are introduced to development and modernisation theory, and the effects of gender and inequality.

Health care in the context of globalisation

The aim of the second compulsory module is to introduce the student to patterns of health-care provision in the context of changing global processes. However, before patterns of health-care delivery can be examined, students need a comprehensive understanding of the global disease burden and its inherent inequalities. The effects of private finance and of local and overseas organisations in provision of health care are discussed, as well as the effects of trade agreements on health care. The roles of key players who affect the balance between public and private resourcing, and between prevention and primary care and secondary care, are assessed. The growth of supranational corporations that participate in health-care provision, insurance, and pharmaceuticals are discussed.

Human rights and health in an international context

Doctors have a large role to play in the protection of human rights, and will frequently need to make decisions when other people's human rights are at stake. Students on the third compulsory course are encouraged to imagine the positions of doctors, human rights lawyers, and perpetrators and victims of abuses of human rights. In this way students grow to understand the nature of rights, and how these rights can be compromised. Students are also helped to appreciate the ways in which medical practitioners can be drawn unwittingly into human rights abuses, and to develop a view of respect for human rights as an integral part of medical practice. Abuses of human rights in times of conflict is discussed in some detail, with special emphasis on the war crimes tribunals dealing with the conflicts in Rwanda and the former Yugoslavia.

Optional modules

Two optional modules were also developed in the International Health and Medical Education Centre: maternal and child health in developing countries, and infectious disease in developing countries. All students choose one of these, along with a second optional module from those offered by a range of other departments within UCL—anthropology, geography, history of medicine, and languages—and at the School of Oriental and African Studies. At present, the international health BSc modules are available to students taking other degrees in the College, both medical and non-medical, to make use of the benefits of studying in a multifaculty institution.

Around half of the time allocated to each module is for reading and self-directed learning. Many of the students balked at the size and complexity of some of the early readings, particularly those dealing with development theory, economic, or sociological concepts that might have been alien to those who had studied nothing but science since the age of 16. The format of the lectures might also be unfamiliar to these students; generally, fewer handouts and audio-visual aids were used than in other science disciplines. In the second year, we are providing an introductory reading list before the course begins. Both this list and some of the reading for the individual modules are available on the International Health and Medical Education Centre website (<http://www.ihmec.ucl.ac.uk>).

Modules have been developed with teachers from several centres at UCL, including the Centres for Social Policy, of Infectious Disease, and of International Child

Health. Invaluable input has also come from two non-government organisations: Medact, a health professionals' charity working in global health issues, and particularly Mike Rowson, its Executive Director; and Physicians for Human Rights UK, two of whose officers, Bernie Hamilton and Peter Hall, have coordinated the Human Rights module.

An additional module, which is still at the planning stage, is to be entitled global influences on health policy. This course will look at the global institutions, organisations, and individuals affecting health and health policy, aid and donor funding, and the role of non-governmental organisations.

The project

It might seem strange that a BSc in International Health requires a project to be undertaken in the UK. This necessity is largely due to rather parochial logistic reasons—concurrent commitments to other modules, and concerns about supervision, health, and safety of students travelling abroad. During their second term, the students work for about 2 days per week, attached to an organisation

Projects undertaken by students

- Seeking asylum and health in the UK (Refugee Council)
- Torture in the Democratic Republic of Congo (Medical Foundation for the Care of Victims of Torture)
- Tobacco control: problems and solutions in developing countries. The case of Thailand and India (Save the Children UK)
- Community-based health insurance: meeting the needs of the informal and rural sector in low-income countries (Save the Children UK)
- "But they have no watches": adherence and access to antiretroviral treatment of HIV/AIDS in resource-poor settings (Médecins Sans Frontières)
- Modifying adolescents' health related behaviours: a focus on sexual and reproductive health in developing countries (Save the Children UK)
- Tanzania—financing the health sector (Health Policy and Health Services Research Unit, UCL)
- Peer education in HIV/AIDS and reproductive health: the significance of needs assessment and mapping (Save the Children UK)
- Children of bad memories: the need to construct pregnancy from rape in armed conflict as a specific crime under human rights law (Medical Foundation for the Care of Victims of Torture)
- The interaction between poverty, disability and technology (Healthlink Worldwide)
- The market for healthcare in developing countries: theoretical analysis and empirical evidence (Save the Children UK)
- Research and health from resource-poor countries in high-impact medical journals (*The Lancet*)
- Participation of the Houses of Parliament in international development (Liberal Democrats International Development office)
- How is the Commonwealth tackling the problems of HIV/AIDS? (Commonwealth Secretariat)
- Right to health for refugees and asylum seekers in the UK (Médecins Sans Frontières)

Organisations at which the projects were undertaken are in parentheses.

with a role in international health. The students are supervised by someone working within the organisation, and undertake a project, which ideally provides both a resource for the organisation and an academic report for assessment. The project comprises a whole module. Some of the project titles, and the organisations at which they were undertaken, are outlined in the panel.

Assessment

Each of the course units is assessed on the basis of an essay and an end-of-year examination. The external examiner reported that the degree programme was extremely interesting, and provided a solid grounding and a high standard of argument. She noted the need for a high proportion of external lecturers, with consequent need for more standardised approaches to marking assessments. The report also noted the need for medical students to acquire novel skills in development of concise arguments based on referenced evidence. Study skills sessions and a greater degree of feedback on essay writing were suggested, and these changes are being implemented.

Feedback from the students was enthusiastic. They felt that they had been provided with the necessary knowledge to analyse complex processes resulting from global changes, and that the course had prepared them to engage in debates about globalisation.⁶ They thought that they were equipped to understand the complexities of health situations in developing countries if they decided to work overseas. The students also felt that the course gave them insight into issues that were relevant to practising medicine at home: the health problems faced by asylum seekers and others migrating to the UK; the strength of interest groups such as the pharmaceutical industry; and international trade rules that might affect provision of health care in the UK as well as overseas. Their conclusion was that medical faculties should aim to include international health in their core curriculum, and offer related optional modules, as an essential step towards creating doctors who include "advocate for health" and "agent for social justice" among their professional roles.

The future

The future of the course, if judged solely on popularity, seems assured. In the current year, there were more than 50 applicants for the 15 places available; again, about half were from within RUMS and half from other medical schools. We also hope to act as a model for other medical schools and institutions.

What are the future ambitions of the students themselves? Why should there be such enthusiasm to spend a year studying international health? Some of the students see themselves working, at least for a while, in a developing country. Others are considering a future working in international health, either in government departments, in non-governmental organisations, or in international organisations such as WHO or the World Bank. Students with other ambitions also stressed the relevance of the course for practitioners in an industrialised country. The reasons they gave varied from the benefits of understanding global effects on disease, looking at stake-holders involved in health-care provision both in the developing and the industrialised world, and the importance of learning skills for working in multicultural societies. Moreover, through organisations such as the Medical Students International Network and the International Federation of Medical Students' Associations, these students are already acting as peer educators and advocates for understanding of global health among their medical student colleagues.

References

- 1 Bateman C, Baker T, Hoornenborg E, Eriksson U. Bringing global issues to medical teaching. *Lancet* 2001; **358**: 1539-42.
- 2 Editorial. Educating doctors for world health. *Lancet* 2001; **358**: 1471.
- 3 Edwards R, Rowson M, Piachaud J. Teaching international health issues to medical students. *Med Educ* 2001; **35**: 807-08.
- 4 Haq C, Rothenberg D, Gjerde C, et al. New world views: preparing physicians in training for global health work. *Fam Med* 2000; **32**: 566-72.
- 5 Margolis CZ, Deckelbaum RJ, Henkin Y, Alkan M. Bringing global issues to medical teaching. *Lancet* 2002; **359**: 1253-54.
- 6 Miranda JJ, Yamin AE. Where is the real debate on globalisation? *J Epidemiol Community Health* 2002; **56**: 719.