The challenges of professional training

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Undergraduate Training in Medicine

Undergraduate medical education has undergone a revolution in the last decade. This has been stimulated by the realisation that the current system is unsustainable and may produce doctors who are ill-fitted to practice medicine at the end of the 20th and beginning of 21st centuries. Some of the new ideas have had their origins in the developmental work that has been undertaken in relation to the introduction of new subjects into the medical curriculum, including Geriatric Medicine [1].

Aims and Objectives

In the United Kingdom, medical schools are revising their curricula to comply with recommendations made by the General Medical Council [2]. Among the aims of the new medical curriculum is a reduction in the burden of factual information. Over the years new material has been added to the medical curriculum and little taken out, and, as a result, large quantities of facts may be passively transmitted to students who remember them for only a short time, perhaps wisely because many of these 'facts' soon become out of date. A challenge is, therefore, to decide what is essential or 'core' knowledge. One of the new subjects added to the curriculum in the last three decades is Geriatric Medicine. Another aim of the new curriculum is to prepare students for the life time of learning which is necessary to maintain modern standards of medical practice. In order to achieve these aims the curriculum has been divided into a core curriculum, containing the essential knowledge, skills and attitudes which all newly qualified medical practitioners must have and which should occupy about two thirds of curricular time, and special study modules in which certain subjects are studied in depth with students having some choice of the subjects to be studied. In these special study modules students learn how to undertake research, critically assess evidence and use information technology. In order to enhance active learning, curricula are problem-based with learning based on clinical problems. In some medical schools the curriculum is entirely problem based with the students responsible for their own education under the guidance of facilitators. This type of approach is resource intensive and most medical schools use a modification of this. Overall there is a move to make the curriculum more student centred rather than teacher driven, to emphasise learning rather than teaching and to use self-directed learning. Another change, partially driven by changes in medical practice, is that much more of the clinical teaching now takes place in the community rather than in the hospital. Geriatric Medicine has always emphasised the link between community and hospital services.

Other changes include a more central direction of the curriculum. This avoids both duplication, and omission of essential materials. The curriculum is no longer departmentally based and is integrated both vertically, i.e. between pre-clinical and clinical subjects, and horizontally, i.e. between specialties. Teaching is system based with normal structure and function, abnormal structure and function, pharmacology and clinical skills taught together. A challenge for Geriatric Medicine is to ensure that the core topics relating to the care of elderly people are included in curricula which are not specialty or departmentally based.

A number of themes are represented throughout the curriculum (Table 1) and these permeate the course. A challenge for Geriatric Medicine is to match educational objectives (Table 2) with the themes. Ageing and care of elderly people is not one of the themes listed in 'Tomorrow's Doctors'. However, most of the themes are closely related to those that would be covered in any geriatric medicine course. For example clinical method, practical skills and patient care are necessary for the assessment of disease and disability in older people and the principles of management of elderly patients. Communication skills are particularly important in relation to the care of elderly people in whom communication, particularly with those with sensory deficits or mental impairment, may present particular challenges. Normal biology includes the normal ageing process, whereas human disease is related to the pattern and presentation of disease in old age and the interaction of physical, mental and social factors in the production of disease and disability in elderly people. Man and society relates to the very important 'geriatric' subjects of social factors in the production of disease and disability in old age, ethical issues in the care of...
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Table 1. Curricular themes

Clinical method, practical skills and patient care
Communication skills
Human biology
Human disease
Man in society
The public health
Handicap, disability and rehabilitation
Finding out: research and experiment

elderly people and an attitude of optimism in the care of elderly people. Public health relates to the epidemiology of ageing and its implications, the purpose, facilities and organisation of hospital care of elderly patients, the role, availability and organisation of community services in the care of elderly people and the prevention of dependency in old age. Handicap, disability and rehabilitation are very important themes in the care of elderly people and relate to some of the principles of management of elderly patients. Thus, Geriatric Medicine covers all the major themes that the General Medical Council has identified and could play a central role in any undergraduate curriculum. Because Geriatric Medicine is one of the newer subjects and has usually been allocated a relatively small amount of curricular time, it is likely that it will already have identified a core of knowledge, skills and attitudes. A challenge to Geriatric Medicine is how to use its limited resources to influence as large a part of the curriculum as possible.

Because of the inter-disciplinary nature of the new curricula, an issue which may arise is whether Geriatric Medicine maintains its individual identity, i.e. whether there is a part of the curriculum which is labelled Geriatric Medicine or some similar title. The different aspects of Geriatric Medicine may be integrated in other parts of the curriculum. Demographic changes and the problems of old age are so important that it is essential that both normal ageing and the particular problems of caring for elderly people should appear in all medical curricula. There must be a clear academic leader for the subject and the position of the subject in the curriculum should be protected.

One of the newer challenges in undergraduate education is teaching quality assessment (TQA). All subjects of all universities are now assessed and in future the funding for education may be related to the results of the assessment. Among the areas that are assessed are the objectives, how the curriculum meets the objectives, the assessment processes, the facilities available and the quality assurance procedures.

An unresolved challenge in medical education is the assessment of attitudes of students. An objective in Geriatric Medicine is to improve students' attitudes to the care of elderly people. A number of studies shown that the attitudes of groups of students have been positively influenced by an educational experience in the care of elderly people [3-5]. The assessment of the attitudes of the individual students, however, has not been satisfactorily tackled and the problem of identifying the students whose attitudes are so negative that they should not be permitted to qualify in medicine is one of the challenges that continues to face medical education.

Multidisciplinary training [6, 7] is particularly appropriate in the care of elderly people as the multidisciplinary team is an important feature of geriatric care. Multidisciplinary education has usually meant different medical specialties teaching together. It should now be extended to encompass students of different healthcare professions learning together. If health professionals are to work successfully as members of teams, it seems likely that training on a
multidisciplinary basis will be good preparation for this. There are a number of aspects of medical education, particularly those related to sociological and ethical aspects, that can be very effectively taught on a multidisciplinary basis, while rehabilitation, health promotion and some clinical aspects can also be taught together.

Content of the Training Programme

Training programmes are based on the educational objectives. While some topics can be taught in a formal lecture type format, Geriatric Medicine is a practical subject and is best taught in a clinical setting. Some of the topics may be learned in small-group discussions or by self-directed learning. Information on the epidemiology of ageing may be suitable for a more didactic of education type whereas the normal ageing process can be conveniently taught in a discussion or by visits to facilities for older people. The presentation of disease in old age may be seen in the clinical setting as can the interaction of physical, mental and social factors in the production of disease and disability in old age. Services for elderly people can best be demonstrated in a clinical setting. Prevention is suitable for discussion and ethical issues should be learnt in a discussion format based on students' experiences of clinical problems. Skills can only be acquired in a practical setting and it is expected that attitudes will be positively influenced by a good practical experience. There is little of the content of the programme that is not suitable for teaching in a multidisciplinary way and over the years many aspects of programmes such as this have been taught in a multidisciplinary fashion.

Stroke illness is a condition which can be used as a paradigm for a geriatric course. It illustrates how an acute illness can result in long term disability, how acute care moves into rehabilitation, and in some cases continuing care, how social factors are important in determining the outcomes, how an illness can have both physical and mental manifestations, the importance of the multidisciplinary team in obtaining optimum recovery and suitable discharge arrangements for the patient, and how all the resources of Health and Social Services may have to be mobilised in order to properly manage the patient who has had a stroke.

Postgraduate Medical Training

Postgraduate training in Geriatric Medicine is available for those who wish to have careers in the specialty, and for those who may practice in other specialties, including general practice. In the United Kingdom, specialist training has undergone a major change to comply with European legislation [8].

In the United Kingdom, postgraduate training has been largely experiential, with supervision supplied by the medical Royal Colleges. Under the new arrangements more formal educational programmes will be available, and a certificate will be awarded at the completion of training. Possession of the Certificate of Completion of Specialist Training (CCST) is a prerequisite for appointment to a consultant post. A survey of senior registrars in training and newly appointed consultants in Geriatric Medicine in the United Kingdom suggested that there needs to be greater emphasis on research, management in the health service, the psychiatry of old age, domiciliary visits and continuing care [9, 10]. A difficult challenge for the future will be identifying enough time for research without lengthening the period of training to an unacceptable extent. Hospital doctors, who have traditionally made a major contribution to clinical teaching, will have increased pressure on their time from other activities such as medical audit, postgraduate training and health service management.

The nursing perspective

The context of demographic change and its implications for education

The projected effects of the industrial maturation of Britain are characterised by a decrease in mortality rates accompanied by a fall in fertility [11]. In most advanced industrial societies the results of the post-war "baby boom" will be felt as that sector of the population ages at the beginning of the twenty-first century [12]. This results in an ageing and increasingly dependent population with a correspondingly low number of potential carers. The most notable increase in the population of the elderly is in the over eighty-five year age group. The implications of this situation, exacerbated by the falling birth rate of the 1960s, are far reaching in terms of resources for both formal and informal care.

The challenges of community care reforms

The political ideology of successive British governments since 1979, in response to increasing pressure on public spending in the health service, has prompted a plethora of health policies which in turn have changed the face of the provision of care for older people.

Service provision for the elderly is driven by an emphasis on care in and by the community as opposed to long term care in NHS hospitals. The mixed economy in welfare has encouraged greater use of private and voluntary sector long-term care. For example, in 1983 the majority of care provision for the elderly in England took place in NHS beds (55,000) and local authority residential homes (115,900); by
1994 those figures were 37,500 and 68,000 respectively [13]. The total number of places for long-term care for the elderly increased from 280,000 in 1983 to 465,000 in 1994. The change in location of care is illustrated by the emphasis on private voluntary nursing homes (148,500) and private residential homes (164,200). Britain has one of the highest percentages of elderly living in the community in Europe [14], which includes ninety-five percent of those over 65 years and seventy-five percent of those over 85 years. The rapid change from hospital to community care has implications for the training and supervision of all nurses.

One of the major challenges in education for nurses will be to prepare practitioners who are able to meet the changing health needs of patients in the community as well as in hospital. Care of the elderly will present the biggest challenge. The provision of care for this sector of the population includes: acute illness, chronic illness, long-term 'basic' nursing and social support for patients and carers. Community nurses have demonstrated an increase in their workload in care of the elderly since 1990. This increase is associated with: early discharge from hospital, an increase in complex treatments in clients' homes, follow-up care of day surgery patients and the increased care of the terminally ill in their own homes [15].

Disch [16] has noted that district nurses who care for the elderly are seen as the 'glue' that holds together the fragments of other services. This 'picking up the pieces' role is one which must be addressed in the form of multi-disciplinary training and communication in educational establishments and the clinical areas. The central role that nurses play in the care of the elderly will continue. However, rather than picking up the pieces, well educated and supported nurses must have an essential role in the organisation of care for their clients using multi-disciplinary services.

**Meeting the challenges through educational reforms**

During this period of change in the provision of health care, nursing also has experienced a period of intense upheaval in an attempt to reform the educational system. One emphasis during the transition has focused on the 'professionalization' of nursing in both clinical and education roles [17, 18]. The emphasis on nursing becoming a 'respected' profession has been both criticised and supported from nursing and medical commentators—depending on the emphasis being put forward at the time. A major issue for nursing has always been its relationship to medicine and the desire to be taken seriously as an academic discipline. Nurse training is now university based with an emphasis on evidence based practice and the development of research skills. In addition, many nursing departments are located in faculties which also train medical students. This affords the opportunity of shared learning which should benefit both parties in a clearer understanding of one another's occupational roles.

In the United Kingdom there is a dual system for training nurses. One is through a degree preparation of 3 or 4 years with normal university entrance criteria and funding, the second is the 3 year diploma programme (known as Project 2000). The student receives a bursary of approximately £4,450 and is required to undertake a period of rostered service of 6 months in hospital or community settings. The minimum requirements set down by the UKCC for the diploma are 5 GCSEs although most institutions only accept higher entry qualifications. The numbers on degree courses are usually small eg, 30-40 intake per year, whereas diploma programmes may have 400-500 students per year.

The transfer of nursing into universities is now complete throughout the UK. This move has been the most far reaching and major change ever undertaken by nursing education and has the potential for fundamental change in the nursing profession. To have nursing education in mainstream higher education provides major opportunities for multi-disciplinary education across a range of disciplines. The integration of nursing education into higher education has not been without its difficulties and it will be a number of years before nursing education is fully embedded spatially and intellectually in the university system. Nevertheless, it is an important development which provides opportunities for nursing, medical and other students to learn together and, as university students, to share the ethos and facilities of universities as equal students within the campus.

Pre-registration nursing education prepared practitioners for one of four branches; Adult, Children, Mental Health and Mental Handicap. This approach has been much criticised recently and there is a call for changes to provide a more generic nurse with opportunity to specialise at post-registration level. The division into four branches after a common foundation programme means that the nursing approach to elderly care is fragmented between the adult, mentally ill and mentally handicapped and there is often no clear focus in the curriculum on older people as a group with particular needs.

The specialisation at pre-registration level and few opportunities to obtain a second qualification means that there is a growing shortage of dually qualified nurses who are trained in adult nursing and mental health nursing to care for older people with mental health problems. The shift of care into the private sector has implications for nursing training as students may not have experience of caring for older people in hospital or have experience in settings which can be less than ideal.
At post-registration level nurses do undertake specialist practice courses in care of the elderly while the preparation of community nurses places considerable emphasis on the preventive and caring aspects of caring for older people. However, there is no clearly defined specialist in nursing which encompasses the needs of older people despite the evidence that this is a key area of health care.

However, trends in other countries indicate that this may change with care being organised around the needs of groups of patients with similar conditions or diagnosis. This case management approach is one which could be applied to caring for older people. The principal tool used in case management is the care map, which generates for specific case-types (usually associated with diagnostic-related groups) a problem list with expected patient outcomes, and a critical path of expected events day by day. Frequently the appointed case-manager will be a nurse, noting variances from expected outcomes and daily events.

Changes in the organisation of medical care affects nurses and nursing and the role of nurses is changing to meet these imperatives. For example, the changes in junior doctors hours requires nurses to be prepared to undertake advanced roles and to be flexible in their working practices. This has implications for training and for the way professionals learn to work together. A recent report on changes in nursing [19] found that training for certain core skills needed by nurses expanding their roles is similar to that needed by pre-registration house officers (PRHOs) although PRHOs often do not receive the training they need. This suggests it may be possible for nurses and doctors to be trained together to undertake a number of tasks such as venepuncture, cannulation, giving IV drugs, ECG recording, catheterisation, and to receive joint education about the requirements for requesting investigations either radiological, pathological or haematological.

The problems of establishing multi-professional training are numerous and include different entry requirements, differing curricula, length of training, differing requirements from Statutory Bodies, eg, nursing has very prescriptive hours set down by the European Union and statutory requirements and there is a lack of flexibility from the UK validating bodies (the 4 National Boards for Nursing, Midwifery and Health Visiting—one in each country).

Nevertheless, there are a number of initiatives underway on shared learning which are detailed in a report from the Centre for the Advancement of Interprofessional Education (CAIPE) [20]. Many of the examples of shared learning could be applied to care of the elderly. The opportunity for 'professionals' from different but allied disciplines to work together will have a positive effect of care of the elderly, particularly in the community. Shared learning experiences which examine the wider socio-economic implications of changes in health policies for the elderly will provide health workers with a deeper understanding of the range of issues which may impinge on health. A mutual understanding of one another's unique roles through shared learning experiences will go some way towards taking issue with the 'fragmented' care and communication that has been found in studies of care of the elderly.

References
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