Strategies for Curriculum Development: Of Ethics and Education

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There have been continuing demands\(^1,2\) for the renewal of medical education such that the education of medical students will prepare them to meet the needs of the communities which they will serve\(^3\). The central emphasis, apart from that of maintaining a standard of knowledge and skills sufficient for licensing medical practitioners, has been on the qualitative aspects of carers.

In any new path that is proposed, it is the philosophical and social questions which gain prominence in the light of ever increasing technological development. These technological developments bring forth questions concerned with the quality of patients’ lives\(^4\), ethics and morality. The imminent and pressing problems of chronic disease, old age, handicap, abortion, artificial nutrition, withdrawing medical support, organ transplantation, fertility and genetic engineering raise issues relevant for the clinician in everyday practice. Furthermore, the economic costs of medical care underlying the solutions to ethical dilemmas, and the costs of medical testing and intervention, must be included in clinical thinking and thereby included in any new curriculum. In some ways this is uncomfortable knowledge\(^5\). The social sciences applied to medicine operate in a charged political arena where information often challenges established clichés and puts in question accepted solutions. Falling fertility in the Western world is occurring at a time when there is increasing longevity. This will shift the fiscal balance necessary for the support of health care, particularly in countries where the “new consumers” from other lands demand support from a budget to which they have not contributed in the immediate past.

Social considerations in medicine demand a long term perspective on human relationships requiring knowledge about human nature, family culture, and social welfare. As the 1988 WHO declaration states\(^2\); “...the aim of medical education is to produce doctors who will promote the health of all people, and that aim is not being realized in many places, despite the enormous progress that has been made during this century in the biomedical sciences. The individual patient should be able to expect a doctor as an attentive listener, a careful observer, a sensitive communicator, and an effective clinician; but it is not enough to treat only some of the sick”. Strong and heady stuff, and for many of us almost impossible to contemplate in its entirety and implement in practice. Such practice...
requires knowledge from varying disciplines concerning human behaviour. Promoting the health of all people, as recommended, is a social and moral consideration. Attending the individual patient, the central focus of the clinical encounter, is an ethical consideration. While both hang together easily in the above quotation, in practice they are not so easily realised.

How can we then contemplate a curriculum for medical education when the breadth of knowledge is so great, and the increasing trend of practitioners is towards specialisation? One way would be to educate health professionals to work together such that they can operate as a team to develop and share individual expertise. Some initiatives in medical education have attempted to promote such activity.

For the introduction of any change in a curriculum there are essential conditions for that change. First, it is important that all who are likely to be involved in implementing change are involved in discussions regarding that change. This initiative is essentially a political and relational process. Political, because one party attempts to influence the other by argument. Relational, because the process is dependent upon goodwill and trust between faculty and the students for whom they are responsible. Second, for new methods to be implemented then the teaching staff involved must not be defensive and protective about their own subjects. This second condition requires interdisciplinary and interdepartmental cooperation. The implementation of change is a management task for which few of us are prepared by training.

The strength of this approach is that it mirrors the consultation approach which stresses the activity of the patient. Patients, and sometimes their families, are expected to actively contribute to treatment decisions and identify goals for change. In areas of decision-making where ethical considerations play an important role, the negotiation of cooperation within a relationship of trust could be a vital skill for our students to learn. This skill would not entail an encyclopaedic knowledge, but the ability to seek relevant knowledge and apply it in context as the situation demands. Part of this assimilation of knowledge would be social; i.e. listening to what others have to say with a different world view.

Sukkar writes that in order to bring about change in a medical faculty it was important that the teachers were made aware of the educational processes involved and that that the teachers had expertise in planning the new educational strategy. To this end members of the teaching staff were asked to participate in a programme of 2-3 day workshops. Junior members of staff were also encouraged if they showed interest in educational activities. Specialised workshops also developed expertise in specific areas of educational activity; curriculum planning, instructional methods, the use of educational technology and other teaching media, and evaluation methods. Small working groups were also set up to implement particular aspects of curriculum development.

This teacher training programme emphasised the role of learners in setting learning objectives. Although integration between departments was encouraged the
impact was minimal. The introduction of such change involved three main strategies:

1. A fellowship strategy which involved and included the teachers.

2. A political strategy which used power and influence to implement the necessary initial changes.

3. An academic strategy of considering issues on their intellectual merit and the basis of information rather than the protection of territorial rights.

It is clear from the literature that there are no universal solutions to curriculum change, and each setting must generate its own particular programme, although the process of change with institutions has elements in common. What is evident from the practice of implementing change is that a tutor training programme is mandatory. Tutor skills are paramount in new approaches to medical education. The tutor must stimulate discussion, maintain attention to the problem being discussed and guide the learning of the group, by facilitating group dynamics. This entails the tutor having an overview of the territory of the subject while the students can explore individual features.

What we can learn from this is that although students are in individual control of their own learning, and deciding what they will learn; the faculty determines the methods by which the students will be taught. It is the faculty which remains constant over time and which must maintain the thread of education. The student weaves that thread, according to his own particular pattern, into a garment which fits his or her own particular needs.

The central feature of any new approach is that it is based upon set objectives. These objectives are made clear between student and tutor relating to the personal needs of the student and inevitably to the requirements set by the state exam. In the end the faculty is responsible to the community that it will produce doctors of a particular standard fit to serve that community. While the standard itself may be questionable we can accept it as a basic which we can enhance, rather than a ceiling to which we must aspire. This tension will always exist between individual perspectives and state requirements, but it is not necessarily counter productive regarding new teaching approaches.

Although in recent years a number of medical schools have adopted problem based learning, so far there is no evidence that problem-based learning is educationally superior to the conventional curriculum. Nor is it inferior, and students appear to like such methods. Output measures are insensitive in detecting the subtle differences that may occur using such methods; although as educators we assume that a problem-based approach may be creating an educational climate which enables students to learn in what seems to be a desirable manner.

Contract learning is also a form of learning by the setting of mutual objectives. The term “contract” itself is redundant as all learning situations are a contract between student and teacher, or student and faculty. What these methods have in common is that the contract is made explicit, rather than implicit, and given definite boundaries according to the personnel involved.

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The assumed benefits of these methods are that learning occurs in a context similar to which the student will practice as a doctor where knowledge is shared and negotiated in a team; that their eventual work as a doctor will be improved because knowledge is understood in clinical and social context; and the conditions are set for lifelong learning\textsuperscript{10}. Students are not only learning how to become doctors, they are also learning how to learn. That further learning, based upon critical thinking, does take place after qualification is open to question. Much practice is based upon eliminating variability and reducing the uncertainty of facts until they fit the familiar view such that a diagnosis can be made. This is the maintenance of medical belief, not the pursuit of scientific argument.

The major implication of this approach is that if we are to implement new methods, and wish to assess the efficacy of those new methods on the standard of medical education, then assessment must occur after graduation when the new doctor is in practice. Apart from this assessment of our teaching methods on the quality of the students we produce, it is clear from the literature that new teaching methods also have a vital component of evaluation during the career of the student at the medical school.

Current thinking in medical education emphasises the idea that people learn best when they are helped to define their own problems, acknowledge and accept their own strengths and weaknesses, decide on a course of action, and evaluate the course of their decisions. (A situation which also sounds rather like the doctor-patient encounter). It does not mean using self-administered tests to determine knowledge and skills; what it does mean is helping people to judge their own performance. It is important for students to define their own learning objectives, and the educator’s task is to facilitate that learning. While the student identifies what he or she wants, the trainer, or support group, also identify what the student needs to expand their learning objectives. The need of the student is a point which is often missed; it is not only what the student wants (which the student can determine) but what the student also needs (which his or her colleagues, and tutor must determine).

Any reform of the curriculum will then require a reappraisal of the principles and practices of the evaluation system. The norm-referenced test which is the primary method of evaluation was initially designed to rank students for the purpose of selection. Difficulties arise when it is used, as it currently is, for the assessment of competence. The norm reference test “while it provides information regarding the relative strengths and weaknesses of students in comparison to their peers,…does not provide an estimate of the absolute level of performance achieved” (p145)\textsuperscript{11}.

As it is the principal responsibility of a medical school to produce competent physicians, and not to rank order them, it is more reasonable to compare student achievement to an external standard of performance or criterion. Criterion-referenced testing is more suitable for the assessment of competence as it best meets the objectives of medical schools by emphasising achievement of clearly established external standards and,
thereby, ensuring a standard of performance. Evaluation in this sense guides both tutor and learner to the areas which must be developed. These methods are also valuable for those students who may require remedial help, and for encouraging a broad based platform for student education.

New methods then also carry with them a component of assessment. Assessment practices are often the major barrier to developing increasing student responsibility: if students always look to others for judgements of their competence, how can they develop their ability to assess their own learning? Transactions between students and staff are critically affected by the balance of power: where is rests and how it is used determines the quality of learning. Assessment is the clearest example of this power in action. Collaborative forms of assessment are necessary to overcome the problem of authority while still meeting the need for a certificate of intellectual competence. An agreed criterion referenced test provides the neutral ground for such collaboration. Using peer reference will strengthen internal demands for consistency and respect for individual ways of learning. But, the demand of external licensing must be met and faculties cannot shirk the responsibility of meeting that demand and the authority of implementing expected criteria.

It is at this very point where we have the dilemma of the current examination system. If we encourage students to develop their own way of learning, then surely we must encourage them to assess themselves as to their competence. However, as faculty we have responsibility to the wider community in issuing the necessary licences of competence. While the student has the responsibility to learn, we have the responsibility to guide, and ultimately judge. To include the assessment of the student, and his or her peers, is essential in respecting their way of learning and implementing change in the curriculum. As to the criteria necessary for licensing, then it is the faculty of teachers who must conserve and maintain the curriculum such that it is coherent and recognisable to external scrutiny. If both parties are involved in the dialogue of change and conservation, within the context of a respectful and trusting relationship, then we can hope that the dilemma will be resolved satisfactorily.

In the end there is a distinction between the student who is there to learn, and the teacher who is there to guide. If the students knew already they would not be studying. It could well be that in our new methods we are asking the student to be both doctor and educator; this would not be so far from the modern demand made of the medical practitioner, and the old meaning of the word “doctor”. However, to attain such a standing requires validation from the community, of which the faculty is representative, that the student when graduated can both teach and heal.

A handicap to the introduction of new teaching methods can be the students themselves. It appears that the pressure of examinations dominate the curriculum no matter how well intentioned the design, or how educationally sensible the underlying philosophy. This can be overcome, but it is necessary to understand that these new study methods also introduce stress. First there is the stress of having little
time for leisure activities. Introducing more areas of study, such as medical ethics, into the curriculum will further compound this problem. Second, any form of assessment, no matter how valuable to the student, is an additional stressor.

Time is an important factor for students. Learning takes time and we must be concerned that students have time to absorb knowledge. Presently there is talk of producing students efficiently, meaning that doctors can be produced in one year less than is currently possible. This is a dangerous trend and totally against the move towards a qualitatively better education. What are we educating our students to become as doctors and carers if we continually stress objectivity, work and production in the shortest time? Furthermore, we are assuming that all students will learn at the same rate. We can promote excellence in all our students, but not all can achieve excellence at the same rate. The way in which we teach is as important as what we teach.

To practice medicine is to solve ethical dilemmas. Medical consultation is a social act where one person intervenes to influence another person utilising clinical and non-clinical expertise. As Brock writes, “Shared decision-making does not imply a value-neutral role for physicians; it requires of them a more delicate balancing. They must advocate for their patient’s health and well being, while also being prepared ultimately to respect patients’ self determination, even when they agree with their patients’ treatment choices”\(^\text{13}\). Such a statement could be translated substituting tutor for physician and student for patient. Medical or educational interventions are reached by consultation which demand a social understanding lacking in medical education. Learning to make shared decisions based on consultation will be the future of health care delivery. How we implement such an activity, and teach it to our students is a matter of debate and urgency and runs counter to the modern trend of specialisation. Ethics is concerned with the decisions individuals make about their own behaviour. Morality is the set of rules resident in the community which govern individual behaviour. The reconciliation of an individual ethic within the context of a social morality is at the heart of human decision making. Finding solutions to this dilemma is the stuff of education.

8. Coles, CR. The actual effects of examinations on medical student learning.


