

Can professional judgement be taught to undergraduate pharmacy students?

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Contemporary practice increasingly requires pharmacists to exercise their judgement and make decisions, many of which are necessarily based on their professional expertise, value structures and experience rather than exclusively on known facts and evidence. This raises questions about the appropriateness of undergraduate training in equipping pharmacists to make these judgements and decisions, which are not exclusively founded on codifiable facts.

We recently conducted interviews with groups of first-year and third-year students at four UK pharmacy schools to explore their experiences of undergraduate education and their expectations of professional practice.^{1,2} These students indicated that, in the initial years of the MPharm course, a clearly perceived imperative was for them to acquire a large established body of

knowledge, most often by a process of rote learning. The formative education of pharmacists, then, involves a considerable emphasis on the necessity to accumulate and understand facts and principles.

Only after acquiring this immense “knowledge base” are students introduced to the application of this knowledge in the context of professional practice. This incremental model of pharmacy education correlates with the traditional model of medical education, which had distinct pre-clinical years followed by years of clinical training. We identified a predominant perception among the pharmacy undergraduates we interviewed that the professional activities of pharmacists, and consequently the aim of the pharmacy degree, rested on the acquisition of scientific knowledge and the scientific skills of precision and accuracy, particularly in relation to the process of dispensing medicines.

As we talked with students, a recurrent theme that emerged was their conceptualisation of a highly constrained professional identity for pharmacists, exemplified by a perceived imperative to avoid at all costs the risk of making mistakes in practice. That is, successful professional practice was defined in negative terms — “not making an error” — rather than in terms of positive outcomes.

Inculcation of absolutist principles by students from the outset of their training potentially undermines confidence in developing professional judgement

The pharmacy degree was seen by students as a vehicle for transmitting the facts, principles and skills required to eliminate the risks of mistakes associated with dispensing, which they viewed as the key role of pharmacists:

“... it's about being professionally competent ... not making a mistake because that could kill someone.”

Consequently, some students had formulated a restrained, risk averse model of pharmacy practice. Traditional modes of law, ethics and practice teaching, clearly still present in contemporary courses, seem to glory in tales of miscreant pharmacists being struck from the Register, reinforcing the message that mistakes must at all times be avoided: “So you see when people have gone wrong, and how they have been punished and taken off the Register.”

Students appear to commence their training with a developed sense of their pro-

fessional identity being founded upon absolutist principles. These involve adherence to formulaic practices — most obviously in ensuring that their dispensing practices are safe and effective. This would suggest that, at least in the first three years of their degree, they are inculcated with a tendency towards risk aversion, ie, actively to avoid risk.

Clearly, averting or minimising as far as is possible any risk of errors in dispensing is entirely appropriate and, in practice, risk minimisation in this largely technical activity may be achieved with the use of standard operating procedures, computer technology and dispensing robots.

Yet learning how to manage health-related risks associated with medicines use is equally important, as pharmacists are called upon to advise patients and other practitioners regarding medicines use, often in the absence of all the pertinent facts, and in so doing may also be expected to communicate the attendant risks of medicines use. However, in contrast to undergraduate medical training, where from the outset students are confronted with how best to manage the risks facing patients and practitioners, pharmacy undergraduates receive relatively little exposure to, and training in, risk management.

Comparison with the contemporary

model of medical education bears further scrutiny. The modern medical curriculum places medical students in general practice right from the start of their training in order that they observe medicine being practised. This exposes medical students to practising role models and practice environments where they can learn the “facts” associated with professional practice in the context of how medical knowledge is applied to patients. Problem-based learning styles support and reinforce a sense that professional practice is as much to do with dealing with issues that require an informed appropriate value judgement as it is with identifying a definitive solution. In such cases, making an appropriate decision based on a set of professional values is not the same as making the absolutely correct decision. Although some pharmacy schools are attempting to address the context of learning using techniques such as problem-based learning and inclusion of practice placements these are the exception rather than the norm.

The ability to balance the application of certain principles and specialist knowledge with judgements based on managing uncertainty, marks pharmacists out as professionals. In practice, absolute facts and uncertainty are not independent entities. Currently, the uncertainty associated with professional practice is either poorly represented in MPharm curricula, or is introduced to students late in the MPharm course after the “facts” associated with the pharmaceutical sciences and the legal, accurate and ethical practice of pharmacy have been learnt and internalised by the students. Inculcation of absolutist principles by students from the outset of their training potentially undermines future confidence in developing professional judgement formed in the absence of all the facts. In turn, an opportunity is missed to facilitate students in developing an identity at the core of which is an ability to combine knowledge and practice uniquely in order to generate a professional judgement. We would argue that the pharmacy curriculum should develop such that, as pharmacists' activities expand, they acquire the confidence to manage uncertainty and risk.

References

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