

Innovative teaching of pharmacy undergraduates

Innovative ways to modernise pharmacy careers were discussed at the official opening of the pharmacy ‘clinical skills suite’ at the University of Bradford last month. Shona Kirk reports.

The innovative teaching carried out at the University of Bradford, in which pharmacy undergraduate students taking the five year ‘sandwich’ course are introduced into work placements in year three, is leading the way in curriculum development by enabling students to apply their learning into clinical practice at an early stage in their career. So said Keith Ridge, chief pharmaceutical officer for England, at the official opening of the pharmacy clinical skills suite at the University of Bradford last month (see Panel overleaf).

Kay Marshall, head of Bradford School of Pharmacy, said that it is important to put science into a practical context. “Bradford School of Pharmacy is a forward-looking school,” she added.

Pharmacy teaching in Bradford

The five-year sandwich course has been available at Bradford School of Pharmacy since the 1970s. Bradford is still the only university in the UK to offer this type of course.



The new pharmacy ‘clinical skills suite’ at the University of Bradford includes a mock hospital ward and a dispensing area

John Purvis, director of pharmacy education at the University of Bradford, said that the modular system now used by many schools of pharmacy can lead to fragmented learning. He pointed out that the integrated system used at Bradford is different to many schools of pharmacy in that, rather than fragmenting

learning, it consolidates learning by teaching through the body systems. “Drug delivery is taught within the same module as the physiology, anatomy, and pharmacology of that particular body system,” he explained.

Professor Purvis said that at Bradford, there is a strong philosophy that students should have choice in what they learn. “We want to develop lifelong learning. Part of this is making choices about what they learn, and how they learn ... this goes some way to developing a student-centred learning approach,” he said.

Pharmacy students at Bradford undertake their masters project in the third year of the course. This means that the final year is heavily oriented towards the future roles of pharmacists, in particular prescribing roles, said Professor Purvis. “This is where we maximise the use of a resource like the clinical skills suite,” he added.

Focus on research

Speaking at the opening of the suite, Jamshed Anwar, director of pharmacy research at the University of Bradford, said that the pharmacy clinical skills suite is where the undergraduates consolidate the science that they are exposed to at the university. “Students

Modernising pharmacy careers

As part of a review of current pharmacy undergraduate and pre-registration training, the Institute of Education at the University of London was commissioned to provide an external reflection on the current position through a review of literature, curricula, engagement with schools of pharmacy, pharmacy professionals, regulatory bodies, academics, employers and students.

The results of this review were recently presented to a group of stakeholders. Two options for reform of university curricula were presented:

A single practice placement model. This would be a continuous, five-year period of qualification. A single practice placement,

possibly of nine months duration, would take place in the final year followed by a return to university for three months.

A dispersed practice placement model. This would involve a number of opportunities to learn in practice throughout the full five-year programme. Placement programmes would be spread throughout the full five years, allowing experiences of practice to help shape knowledge as the student progresses through the course.

The ‘Bradford model’ was suggested as a third option by delegates at the event. The findings of the review were due to be considered by the careers programme board earlier this month.

get to work alongside other researchers in research groups, they are exposed to research at the cutting edge, and they experience the successes and the disappointments of this research,” he explained.

Professor Anwar highlighted the broad scope of research that is carried out within Bradford School of Pharmacy. This includes discovery, neuropharmacology and drug delivery. As an example, he discussed work carried out at the school to determine how the chemical penetration enhancer, dimethyl sulfoxide, is able to increase the permeability of the skin to allow transdermal drug delivery. This work was carried out using computer modelling and was able to show, for the first time, how this compound works.

A model to follow

Dr Ridge said that at a recent stakeholder event in which options for modernising pharmacy careers were discussed (see Panel on p49), there was general acceptance that teaching and learning need to be synergistic in the current pharmacy curriculum in order to put knowledge into context. This will produce future pharmacists who are practitioners, professionals, scholars, and scientists.

Clinical skills suite

The clinical skills suite at Bradford School of Pharmacy has been designed with student-centred learning in mind. It contains a large laboratory in which each student has access to a computer and to individual copies of the British National Formulary and other useful resources. Side rooms in the suite include a ‘hospital ward’, which contains a bed and vascular monitoring equipment to enable students to develop their clinical skills through role play.

A dispensing area in the suite allows students to gain ‘hands-on’ experience of dispensing medicines. There is also a ‘community pharmacy’, sponsored by Weldricks. Students can be filmed carrying out their clinical skills to enable better feedback on their development. Students’ clinical skills are also examined in the suite.

Professor Marshall told *The British Journal of Clinical Pharmacy* that the school also has an aseptic suite for training pharmacy students, which is due to be officially opened in the near future.

Dr Ridge pointed out that since the publication of the white paper, ‘Pharmacy in England: building on strengths — delivering the future’ which first proposed changes to the pharmacy curriculum, the financial climate has changed fundamentally. He said that this means we have to be realistic about what can be achieved. “It will require leaders in pharmacy across all sectors —academic, NHS, community, and industry — to make the most of the opportunities provided to them, including a programme of educational reform. Pharmacy should be seen as part of the solution, not part of the problem.”

Professor Marshall said: “I, for one, hope that as we look to the future, when pharmacy careers are modernised, the workplace will offer the bright young things that schools of pharmacy are producing, careers and opportunities that match their skill sets. They come out of university full of aspiration and enthusiasm for their profession. I want them to have the opportunity to make us a true healthcare profession.”

The pharmacy clinical skills suite at the University of Bradford School of Pharmacy was officially opened on 25 January 2010.