

Encouraging students to develop lifelong learning

INTRODUCTION

Lifelong learning is a skill that is required of medical school graduates. In the foreword of the GMC's *Tomorrows Doctors* 2009, Professor Peter Rubin states that:

*'Today's undergraduates — tomorrow's doctors — will see huge changes in medical practice ... Basic knowledge and skills, while fundamentally important, will not be enough on their own. Medical students must be inspired to learn about medicine in all its aspects so as to serve patients and become the doctors of the future.'*¹

The outcomes for the graduates set out by the GMC include the ability to acquire, assess, and apply and integrate new knowledge and the establishment of the foundations for lifelong learning and continuing professional development. In my experience as an undergraduate primary care course organiser, students are driven to acquire new knowledge and skills, but seem less motivated to develop their skills for lifelong learning. In line with GMC requirements, one of the aims of the undergraduate medical course should be to help students develop the skills of lifelong learning.

THE THEORY BEHIND ADULT LEARNING AND LIFELONG LEARNING

It's over 30 years since Knowles first described the concept of adult learning and since then many other theories of adult learning have been developed. Knowles first defined andragogy in 1975 as 'the art and science of helping adults learn'.² He set out seven principles of adult learning. These are establishing an effective learning environment, involving learners in curriculum planning, diagnosing their own learning needs and formulating their own learning objectives, encouraging learners to identify resources, supporting learners

in carrying out their learning plan, and involving learners in evaluating their own learning. In 1975 Kolb and Fry³ described the cycle of experiential learning. This is commonly used in practice as the basis for significant event analysis. In 1976 Marton and Saljo⁴⁻⁵ defined deep and surface learning. They described superficial learning as the 'tacit acceptance of information and memorisation of isolated and unlinked facts'. They described deep learning as a process involving critical analysis of new ideas, linking them to already known concepts and principles. Deep learning promotes understanding and application for life compared with superficial learning which only allows superficial retention required for examinations. In 1987 Schon⁶ proposed the theory of reflective practice. He described 'reflection in action' which occurs immediately. It is the ability to learn and develop continually by creatively applying current and past experiences and reasoning to unfamiliar events while they are occurring. He described 'reflection on action' which involves the process of reflecting back on an action, reflecting on what contributed to the unexpected event, and reflecting on how the situation may affect future practice. Medical students are on a journey, developing adult learning styles, adopting deep learning, and developing reflective learning skills so that when they graduate they are competent in skills for lifelong learning and are able to tackle the learning challenges they will meet in their careers.

EXPERIENCE IN PRACTICE

General practice provides a rich learning environment for undergraduates. It provides an environment for students to be exposed to all sorts of patients, a variety of clinical presentations, ethical dilemmas and primary healthcare team dynamics. It provides the context in which students can develop their consultation skills, apply the principles of screening, medicine

management and evidence-based medicine, and develop their foundations for reflective practice.

Medical students at Sheffield University are placed in general practices for 7 weeks in the third year of their course. They spend 3 days a week in general practice and attend a weekly university teaching day. As part of the university day they spend an afternoon in small groups. These groups contain approximately six students and are facilitated by a GP. The small group session allows discussion of learning that has occurred in the week and gives structure to student learning in the form of Integrated Learning Activities (ILA). The structure of the ILA is based on the Maastricht seven jump process (M7JP).^{7,8} The M7JP is rooted in adult learning theory. It provides a model for problem-based learning and guides the tutor and students through seven steps in their learning.

The students are given a scenario and asked to set their own learning objectives. They return the following week to discuss their learning objectives. At the end of the session the next scenario is reviewed and learning objectives set for the next week and so on. This process has been implemented in our small group teaching with one of the objectives being that it helps students to develop lifelong learning. However, it is my experience that students are reluctant to use this model as a guide for their learning. In preference they seem to opt to use pre-defined learning objectives, avoid the step to discuss prior knowledge and take steps to learn in as short a time as possible. Unfortunately the student drive for superficial learning still seems to be dominant halfway through their undergraduate training.

Eighteen small group tutors met in spring of this year to discuss and reflect on their small group teaching in relation to different adult learning theories. Tutors were asked to reflect on the barriers to implementing the M7JP for the basis of their teaching. Throughout the discussions

tutors were asked to record their thoughts on Post-its® or flip charts. Group discussions were recorded by a scribe. At the end of the session the written information was collected and field notes were written.

After the meeting, themes emerging from the data were divided into areas of strengths and weaknesses. With respect to Knowles theory of adult learning, tutors thought that the tutorial session provided a positive learning environment, encouraged participation, and provided a safe environment for feedback. The tutors thought that the facilitator helped to provide a context and structure for the learning.

Barriers to implementing a M7JP and hence developing a lifelong learning approach were discussed and these can be categorised into tutor issues, student issues, and course design issues. Student issues included volume of work, timing of the module, assessment, and application of knowledge. Students were thought to find their GP placements tiring. GP working days are much longer than previously experienced and many students need to travel up to an hour each way to their placements. Wednesday nights are traditionally student nights out and this was thought to contribute to lack of motivation and contributions in the Thursday small group sessions. Motivators for student learning were discussed. The strongest motivator was thought to be that of assessment. The current assessment tools are in-practice assessment of consultation skills and end-of-year multiple choice and modified essay questions. Students have minimal responsibility within their practice placements and have limited opportunities to apply their learning. Student goals were thought to be different to graduate goals. Students may well be able to reach their assessment goals without adopting an adult learning style. Doctors need to adopt an adult learning style to reach their goals which include

application of learning and professional responsibility. Tutor issues included a perceived lack of knowledge and need to develop group facilitation skills. The concept of the 'neurosurgeon' in the group was discussed. This term was used to consider the student who is disinterested in general practice and feels that the learning available is below them. Many of the tutors felt that there was a lack of respect for the GP tutor and the specialism of general practice itself. Students often expected the tutor to be the source of knowledge — in all areas, not just general practice. Giving the students more control over their learning objectives left tutors feeling exposed to lack of knowledge and expertise. Tutors' lack of knowledge in clinical areas and in educational theory was cited as a barrier to the implementation of the MJ7P in the tutorials. Course design issues which were felt to impede the development of the M7JP in the tutorial included too much information in the scenarios, too large a volume of work expected of the students in a week, and easy access to the university learning objectives. Tutors felt that if they were involved in the ILA planning then delivery of the session would be improved.

CONCLUSION

There are several changes that can be made by small group tutors in general practice to enhance their teaching and encourage students to adopt an adult learning style. Changes need to be made to the teaching delivery, including updating current small group teaching scenarios and addressing tutor learning needs. Changes to student assessment, including the development of a student portfolio as a means of assessment as recommended in *Tomorrow's Doctors* 2009, are likely to discourage superficial learning and encourage adoption of a deep learning style. Adaption of student placements to encourage experiential learning will alter student learning drives and will help

students to develop reflective practice and skills for continued professional development. General practice placements are recognised for providing excellent student experience⁹⁻¹⁰ and provide an ideal platform for experiential learning. GP practice tutors should recognise the key role they play in allowing students to put their knowledge and skills into practice and, therefore, in allowing students to develop lifelong learning skills.

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