Assignment 3

Take a curriculum you know and critique whether you feel evidence based principles of curriculum design have been applied.

Word Count 3263

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May 2010
The current RCGP curriculum for GP training was introduced following approval by PMETB in 2007.\(^1\) It includes a core curriculum statement along with more detailed interpretive statements. It is this curriculum that I will be discussing further below.

**DEFINITION**

What is curriculum? The word has its original root in the Latin word for track or race course\(^2\) which then came to mean a course of study or syllabus. However, the word has now come to mean far more than just a list of topics to be studied. It has more recently been viewed in far broader terms to include all the domains of learning, namely knowledge, skills and attitudes.\(^3\) There is also now recognition that curriculum should not focus merely on content, but also look at the methods of teaching and learning that may be most applicable for a desired learning outcome.\(^4\) Curriculum should include content, organisation, learning and teaching methods, and assessment.\(^5\)

The RCGP curriculum is effective in that it satisfies a lot of these criteria by virtue of the fact that it is not a long list of topics to be learnt. Rather, it begins with a core statement entitled ‘Being a general practitioner’\(^6\). It then goes on to list a number of interpretive statements. These headings include clinical topics as well as broader issues like consultation skills and ethics. However, this is intended not as a list of facts to be remembered. More importantly, it looks at how the six core values of being a general practitioner relate to these statements. This covers not only knowledge, but also skills and attitudes. It also includes suggestions for resources that may be useful
in learning and teaching some topics, which allows learning to take place in a number of different ways. However, I was disappointed to note that in some cases the list of resources is blank, for example under the heading ‘care of people with learning disabilities’. The new curriculum was designed alongside the new assessment tools for MRCGP and hence assessment is linked. Indeed, assessment tools are also listed as resources as they are so intimately linked. For example, the COT is listed as a tool for ‘The General Practice Consultation.’

**ASPECTS OF CURRICULUM**

The curriculum can be described as the formal curriculum, the informal curriculum and the hidden curriculum. The formal curriculum includes what the teacher plans and arranges to teach. The informal curriculum describes all the learning that takes place at the institution which is not part of the formal curriculum. This includes learning that takes place during social interactions. The hidden curriculum describes the things that the students learnt but the institution did not plan to teach. This may be positive aspects, like good bedside manner observed while watching a consultant dealing with a patient, or more negative aspects, like learning the hierarchy of medicine through teaching by humiliation. The hidden curriculum may be defined as ‘the set of influences that function at the level of organisational structure and culture including, for example, implicit rules to survive the institution such as customs, rituals and taken for granted aspects.’
Teaching in primary care using the RCGP curriculum usually takes place in the context of general practice. A trainee will be assigned to a trainer and a practice and both formal and informal learning will happen in this environment. It is impossible for the curriculum to cover all these teaching experiences. Most of what a trainee learns both formally and informally is covered in some form by the RCGP curriculum. What they learn in the hidden curriculum depends very much on each individual and the circumstance in which they find themselves. An enthusiastic trainee placed in a practice where they get on with all the staff and fit in with the practice ethos may have a very positive outlook on general practice. However, the hidden curriculum could be devastating for a trainee who perhaps has some specific learning needs which cannot be met in a practice where they are undergoing some partnership difficulties and where cultural barriers prevent an effective working relationship from developing.

**PRESCRIPTIVE CURRICULUM**

The RCGP curriculum is a prescriptive model. It is based on outcomes, or behavioural objectives, which the student needs to attain. Content, teaching methods, outcome and evaluation are all based on the desired outcomes. The advantage of this approach is that the focus is on what the learner is doing, not the teacher. Every trainee that comes through the doors of general practice has a different background with different clinical experience as well as different life experiences. This approach allows a teaching package designed to suit the individual. We have recently had a registrar who had a long history of training in paediatrics. She was easily able to achieve most of the
outcomes in ‘Care of children and Young People’ and we were able to focus more attention on other areas. Behavioural objectives are easily measurable and hence one can be confident that the learner has reached that objective.

In the past, training was defined by the amount of time spent on the job. It was assumed that learning would occur naturally while on the job and there were often no clearly defined educational objectives. Teaching was often disorganised with little emphasis on the educational needs of the trainee. Having a clear outcomes based curriculum changes this. Clear outcomes allow for better assessment, which means that time in service will hopefully, but not necessarily, translate to a competent clinician. This has benefits not only for the trainee but also for society as a whole.

A criticism of the prescriptive model is that focusing on specific skills or precise knowledge may result in ‘the exclusion of higher order content that is important in preparing medical professionals’. This is a concern in a profession where those within the profession put the highest value not on what they know, but on a practical wisdom that allows us to make a judgement on what is best, rather than what is right. In his article entitled ‘Developing Professional Judgement’, Colin Coles puts into words what so many doctors have known instinctively for years but have always struggled to articulate to people outside of the profession. He talks about a practical wisdom, which is ‘not formally taught and learnt but is acquired largely through experience and informal conversations with respected peers.’ It is this that allows a doctor to deal with high levels of uncertainty of day to day general practice and be confident of being
able to argue and justify their position if needed. He makes a distinction between a practitioner being able to formulate a ‘right’ answer and a practitioner deciding what may be ‘best’ in a particular situation and recognises that often these two will be different solutions to a particular problem. He argues that this kind of judgement is learned through deliberation and not just reflection. ‘Deliberation involves becoming immersed into the traditions of practice, not merely to replicate the traditions but critically to reconstruct them.’ Assessment of candidates in the MRCGP places a lot of emphasis on reflection but perhaps does not go far enough to include deliberation. I think it is likely that a good candidate will be able to take the steps needed to develop this professional judgement but perhaps the outcome based style may not go far enough in assessing professional judgement for learners who do not have a high degree of self direction. However, the strength of the curriculum lies in the fact that it does have a core statement that is applied and linked to the related competencies, rather than just a list of skills and knowledge to assimilate. This is further improved by the fact that a large portion of assessment is a work-place based assessment. This does allow for assessment of professionalism as it takes the assessment to real life scenarios which are part of everyday general practice.

THE SPICES MODEL

Professor Ron Harden from the University of Dundee developed a model for curriculum design based on six key concepts. This is called the SPICES model and contains 6 issues all represented as a spectrum or continuum. It is a helpful model for
providing guidance on the many methods of teaching and assessment available but can also be used in curriculum planning or review. The model allows flexibility for each curriculum and acknowledges that at different times and in different situations, learning will take place at any point in the spectrum. However, it is desirable not to consistently be at one end or the other. Professor Harden himself said, ‘it is inherently unlikely that a position at either extreme end of the SPICES spectrum is appropriate’. 

The first concept is the continuum from student centred learning to teacher centred learning. Traditionally, learning has been defined by the teachers and staff planning the course with little or no input from the students themselves with regards to what will be covered and how it will be learnt. This model suggests that students should be involved in planning what they learn and how they choose to learn it. As students take an active part in planning their learning, they will be preparing for the future when they will be expected to prove that they are partaking in lifelong learning.

The second concept is the continuum of problem based learning to information gathering. Traditionally, a number of medical schools have focussed on information gathering. Certainly, when I think back to my undergraduate training, the focus was on passing on information in large quantities, each subject often unrelated to each other at the time. Problem based learning provides a framework for teaching and enthusiastic learning and makes facts easier to remember as they are learnt in context. 

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The RCGP curriculum is designed in a way that it can be individually adapted for each individual. It is not prescriptive in how and when things are taught but allows the teacher and the learner to decide together what the educational priorities for that individual are and how best to achieve them. The curriculum also has a list of resources which may be helpful for learning certain topics which allows learning to take place in a variety of different ways. When appropriate, problem based learning can take place and this may well help to develop problem solving skills which will be extremely useful in practice in years to come. However, this does rely on the student being an adult, self-directed learner. There are some students who use the curriculum as a tick-box list of medical facts to be attained and who use it to justify not learning any more, rather than as a tool to continue life-long learning.

The third concept of the SPICES model is the continuum of integrated courses to discipline based learning. This recognises that the traditional teaching methods – where topics were divided by subject and different parts taught by different departments – may lead to students failing to appreciate how what they are learning will be relevant in future practice. ‘We tend to learn best when we learn in context’. The disadvantage of integration is that some important topics may be overlooked. The RCGP curriculum allows integrated learning to take place while still setting standards and ensuring that those aspects considered vital to future practice will be covered at some point in the training journey.
The fourth concept looks at community based teaching as opposed to hospital based teaching. General practice training has the advantage of being based both in hospital and in general practice at various times in training. Recently, the pendulum has swung to allow a greater proportion of training time to be in the community by adding 6 months of general practice to part of the ST1 and 2 rotations. This allows learners to gain a better understanding of primary care. For example, they are exposed to the team approach, the differences in pathology from hospital based patients and more exposure to health promotion and disease prevention. However, they do also gain an understanding of secondary care and how this interacts with primary care. I think the exposure to both hospital and the community is vital in training GP’s.

The SPICES model then goes on to include electives versus a standard program. The idea of including electives in a medical curriculum is based on ‘the need to reduce the factual load in the curriculum and the desire to encourage students to develop skills of learning for themselves.’ The RCGP curriculum does not allow for choosing elective subjects as all parts of it are seen as essential to being a GP. However, the nature of GP training means that each trainee will have a very different training experience according to where they are based and who will be their teachers. I think a prescribed curriculum is necessary to ensure safe and good practice, but there is room within the curriculum to explore some topics more if desired or to stimulate interest for future study as learning is a lifelong process for GP’s.
The final concept is the continuum between systematic curriculum design and apprentice based, or opportunistic, learning. The traditional approach to medical education has been the apprenticeship model. Students would be attached to a medical team and the assumption was that in time, they would eventually learn what they needed to know from the range of patients that were seen and managed by that team. Learning could not be planned, as one could not predict what may be seen that day. However, a growing need to assure the public that new GP’s are safe and competent means ‘the content of the course cannot be left so much to chance.’ However, an entirely systematic approach would not be beneficial or possible. Problem based and integrated learning are essential in GP training and rely on seeing actual patients in clinical practice. The RCGP curriculum is an attempt to find the correct balance between these extremes. It recognises that a lot of learning will take place on the job and will be based on learning needs derived from actual patients which cannot be planned. It allows for opportunistic learning, and some apprenticeship which is vital to learning the higher professional values of general practice. It then acts as a safety net in that it tells of the knowledge, skills and attitudes a GP should have. The trainee and trainer can be constantly checking their experience and learning against the curriculum in order to see if there are any gaps which can be learnt in a planned and more systematic way if required.
EVALUATION

‘Evaluation is an essential part of the educational process’. The Skilbeck model of curriculum design is a cycle which involves four components. Design of the teaching content is dependant upon evaluation. Good evaluation allows for a natural progression back into the first part of the cycle where objectives can be altered as necessary to ensure that the teaching content is appropriate. This allows a good curriculum to evolve and develop in response to the needs of the students but also in response to changes in practice or changes in society. ‘The curriculum must be responsive to changing values and expectations if it is to remain useful’.

The RCGP curriculum has been designed to be a constantly changing document and hence has been published as a website, rather than as a book. It is reviewed on a regular basis and has had additions and changes made since it was first published. For example, ‘Renal Disorders’ was added as an extra section in response to chronic kidney disease being added to the Quality and Outcomes framework. It is a dynamic and constantly changing document.

SPIRAL CURRICULUM

The concept of a spiral curriculum was first suggested by Bruner in 1966. This allows a continuous curriculum where topics are repeatedly revisited through the course of training at different levels of complexity which is appropriate to the stage of the
trainee. I remember countless didactic teaching sessions from consultants as an undergraduate where the assumption at the end of the session was that the information had been passed across and hence the topic was finished and did not need to be covered again. There was little patience at future meetings when it emerged that perhaps we had not grasped a complex concept in one short tutorial. Using a spiral curriculum model allows the teacher to be more confident that the learner has grasped the facts but also allows the teacher to pass across attitudes and professional values at a level appropriate for the trainee. This also allows the curriculum to be progressive. This means that ‘first year encounters are appropriate to novices and those in the final year to experts-in-the-making.’ This allows for the curriculum to sustain the complex learning that is required for GP training.

The RCGP is not prescriptive in how or when certain subjects are taught. A large portion of learning occurs on the job and learning needs will often be identified based on real consultations where a GP trainee finds himself ill prepared to deal with a patient. This allows for topics to be revisited as required and for learning to be directed at an appropriate level for the trainee. For the adult self directed learner who is involved in planning learning needs, the curriculum may serve as a back up to ensure topics that are not encountered may still be covered.
CONCLUSION

Curriculum planning is extremely complex. Jill Morrison, in her article ‘Evaluation’, makes a statement which for me seemed to sum up all the difficulties of planning and the associated assessment. She says,

‘The full impact of the curriculum may not be known until some time after the student has graduated’

My own experience is that informal learning experiences, which are not part of the planned curriculum, are often far more valuable in preparing me for the realities of general practice. These experiences cannot be predicted or planned, but are extremely important to the trainee’s learning.

However, on reviewing the literature, I think the RCGP curriculum has succeeded in being a dynamic and evidence based document. It allows for teaching of attitudes and professional values while still ensuring a standardised level of practice that benefits patients and society. It is a changing document, ensuring it is keeping up to date with current events and changing practice. It allows some flexibility in how things are taught and learnt, and encourages relevant problem-based learning and vital life long learning.


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