Curriculum creep in medical education

Curriculum is core to any form of education (Harden, 2009). In medical education new curricula continually emerge and existing curricula are continually redesigned (Grant et al, 2013). The redesign process is often a formal one and often happens at regular intervals – say every 5 or 6 years. There are many risks in the design or redesign phase, and an important risk is that the curriculum becomes too big (Allbutt, 1905). Curriculum overload does not happen by design, nor typically does it happen in a way that is immediately obvious to all stakeholders (such as by means of the addition of extra years, programmes or assessments to the curriculum). Curriculum enlargement is much more likely to happen by creep – small incremental increases that one hardly notices. There are different forms of curriculum creep and understanding them will lead to ways to prevent this insidious occurrence.

Feature creep

One form of curriculum creep is feature creep. Feature creep is a form of creep that is commonly cited in the planning and delivery of new products (Elliott, 2007). However, its description finds much resonance in the process by which curricula are developed. In feature creep, more and more features or components are added until the curriculum becomes too big and sometimes almost unrecognizable to the planners who might have initially envisaged it. Occasionally features are added that offer little or no extra worth or value.

Feature creep typically occurs as a result of the best intentions of those planning the curriculum. The planners want to give the learner more – out of genuine desire to offer value, sometimes to differentiate the curriculum from that at a competing medical school or sometimes out of a desire to be seen to be continually improving quality.

Another potential source of feature creep is that there may be many conflicting visions as to what the curriculum should be like (Last, 1985). For example one group may feel that the curriculum should be problem based, another that it should have a large didactic component, and another that basic sciences should be emphasized during the early years. The result might be a curriculum that tries but fails to satisfy all these desires and ends up bloated and complicated. Another unintended consequence of feature creep is that the curriculum will not be able to be delivered within the required financial budget. The curriculum may also not be delivered on time.

Mission creep

Mission creep can also affect curriculum design. Here the growth of a curriculum occurs because the goals of the curriculum change and typically extend over time. The initial goals of a curriculum might be to deliver an integrated undergraduate medical curriculum with a particular emphasis on primary care. The school may start with these goals but tertiary care specialists on the curriculum committee may insist that more specialist components be added – initially only a few but then more and more. This strategy may work initially but the problem occurs when the school inevitably overreaches itself: the students may no longer be able to complete all components of the curriculum with a resultant rising failure rate in exams; alternatively a growing number of graduates may decide to pursue careers in tertiary care and the population may run short of the primary care professionals that the school was established to provide. Mission creep is most likely to occur during the delivery of a curriculum – between the regular formal episodes of curriculum design and redesign.

Instruction creep

Instruction creep is a form of expansion that occurs as a result of feature or mission creep in curricula. As curricula become larger and more complicated, they must be accompanied by a larger and more complicated set of instructions on their delivery. These might be instructions for educators on how and what to teach or instructions for learners on what to learn. Two opposing consequences might occur: the school might become bureaucratic – with members of the institution following increasingly complex guidelines; or members might decide that the guidelines are too complex and that they can get on without them.

This phenomenon is more likely to occur in institutions that are large and complex. The ultimate result may be that the curriculum is not followed at all or that the rule but not the spirit of the curriculum is followed. According to Prideaux (2003):

> **'the curriculum must be in a form that can be communicated to those associated with the learning institution, should be open to critique, and should be able to be readily transformed into practice'.**

Can we truly say this about all of our curricula?

Ratchet effect

Another and final form of curriculum creep is the ratchet effect (Bellante and Porter, 1998). As its name suggests it means that, when a curriculum is ratcheted up, it can be impossible to ratchet it down again. This phenomenon may manifest itself in multiple ways in the context of medical curricula. A medical school may ratchet up its undergraduate provision and decide to admit 20% more students per year. In the medium and long term this will result in more graduate doctors who in turn need postgraduate curricula. Local postgraduate programmes will thus have to expand in their turn.

The ratchet effect can also affect the purchase of medical education products by institutions. For example a school may invest in a set of new state of the art simulation equipment. The purchase is expensive but affordable and within budget. Subsequently, however, the school has to purchase consumables so that the simulation equipment is usable. These compatible consumables are likely to be more expensive than the standard ones that are normally used, because the consumables need to be in a different format to standard so that they will be compatible with the new simulation equipment. In each

case the cost has been ratcheted up, and it cannot be ratcheted down again.

In less tangible ways organizations can become ratcheted up. A local hospital and medical school could grow in size and slowly take on more staff. However, an economic recession may mean that public sector job cuts are necessary. Some stakeholders might argue that the institution is a major employer in the area and that it should not be downgraded. At its core this debate might focus our mind on the purpose of the institution – is it to teach or care or provide jobs or all three? Regardless of the answer political forces may resist the ratcheting down of the institution.

What is the solution?

So what can be done about curriculum creep? As we have seen from the ratchet effect, once curriculum creep has occurred it can be difficult to notch it back, so a strategy of prevention is likely to be best. Feature creep is best prevented by strong project management that insists that all stakeholders adhere to original plans. Initial stakeholder buy in to such plans means that the stakeholders will be less likely to continually come back with suggestions for revisions.

Mission creep is more difficult to prevent as it is most likely to happen between seismic curriculum redesigns; incremental creeps to the mission will hardly cause a shudder in the learning environment but their cumulative effects over time can result in major changes in education provision – many of which may not be sustainable. Ongoing guardianship of the curriculum is necessary to prevent mission creep. Might we need to see our curriculum experts more often than once every 5 or 6 years? BJHM

Kieran Walsh
Clinical Director
BMJ Learning
London WC1H 9JR
(kmwalsh@bmjgroup.com)

Allbutt TC (1905) An Address on medical education in London: Delivered at King's College Hospital on October 3rd, 1905, at the Opening of the Medical Session. *BMJ* **ii**: 913
Bellante D, Porter P (1998) Public and private employment over the business cycle: A ratchet theory of government growth. *J Labor Res* **19**(4): 613–28
Elliott B (2007) Anything is possible: Managing feature creep in an innovation rich environment. Engineering Management Conference, 2007 IEEE International. IEEE Xplore, Austin, Texas, USA: 304–7 (doi: 10.1109/IEMC.2007.5235049)
Grant J, Abdelrahman MYH, Zachariah A (2013) Curriculum design in context. In: Walsh K, ed. *The Oxford Textbook of Medical Education.* Oxford University Press, Oxford: 13–24
Harden RM (2009) Curriculum planning and development. In: Dent JA, Harden RM, eds. *A Practical Guide for Medical Teachers.* 3rd edn. Churchill Livingstone, Edinburgh: 10–17
Last JM (1985) Personal View. *BMJ* **290**: 1900
Prideaux D (2003) ABC of learning and teaching in medicine: Curriculum design. *BMJ* **326**: 268

KEY POINTS

- Curriculum overload is a common problem in medical education.
- Curriculum enlargement is quite likely to happen by creep – small incremental increases that one hardly notices.
- There are different forms of curriculum creep: they include feature creep, mission creep, instruction creep, and the ratchet effect.
- When it comes to curriculum creep, prevention is better than cure.