Continuing education for general practice. 1. Experience, competence and the media of self-directed learning for established general practitioners

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SUMMARY. The arrangements under which continuing education for general practice is provided and attendance by general practitioners is rewarded have now been in operation for three years. More recently, reaccreditation has emerged as a significant issue for the profession. For these reasons it appears timely to review the whole basis of ongoing learning by established general practitioners. In this the first of two papers, learning by established professionals is considered in relation to the educational development of the learner, the role of experience and the goals of competence and performance. It is concluded that self-directed learning based on experience should form the centre-piece of continuing education for general practice and that educational provision should adopt a complementary role in sustaining motivation to learn and by enabling learning from experience to be shared and enriched. A model of self-directed learning, connecting experience and competence through systematic application of three learning media, reading, reflection and audit, is proposed and related to appropriate educational participation by established general practitioners.

Keywords: continuing education; behavioural objectives; self instruction.

Introduction

ALTHOUGH continuing medical education is supported by public funds and perceived by the profession as a means to maintain professional competence,[1] there is little evidence that continuing medical education for general practice is achieving this purpose. The prior educational experience of established general practitioners, the traditional learning formats adopted by much continuing medical education provision and inappropriate models of competence are likely to be contributing to this failure.[2,3] At a more fundamental level it would appear that in continuing medical education there is a gulf between education and practice: in terms of content it is difficult to see the relevance of much educational provision to the day-to-day work of general practitioners; and learning formats rarely draw upon the immediate professional experience of participants.[4-6]

In 1990, to counter the low uptake by general practitioners of opportunities for continuing medical education,[7] financial incentives (postgraduate education allowance) and a market approach to continuing medical education provision were introduced in the United Kingdom.[8] While the new arrangements appear to be creating greater freedom of choice and higher levels of uptake by general practitioners,[9,10] the quality of learning is open to question.[11] Indeed, some have suggested that the new arrangements promote the provision of low cost, unchallenging educational 'junk'.[12]

Recently, reaccreditation has become a topical issue in UK general practice,[13] reflecting both perceived political pressure and significant support within the profession.[14] While the methodological problems should not be underestimated, essentially a process of reaccreditation must adopt one of two approaches: measure input, in the form of participation in continuing medical education; or output, by assessing competence for the role of general practitioner. However unsatisfactory as a surrogate of professional performance, the former is likely to be the initial approach.[15]

In this situation there is an urgent need for general practice to re-examine the theoretical basis of continuing medical education, to explore the determinants of competence in the established practitioner and to identify learning opportunities and outcomes which stem directly from professional experience. In this way, the potential benefits of high levels of uptake are less likely to be squandered in the exercise of choice on inappropriate continuing medical education activities.

This paper considers the ingredients of continuing education for general practice and proposes that experience is the natural substrate of learning. A model connecting professional experience and competence is presented in support of a strategy which places self-directed learning at the centre of continuing medical education for general practice.

Ingredients of continuing education

The learner

Doctors planning to enter general practice emerge from a largely didactic education in medical schools as 'dependent' learners.[16] Experience as a pre-registration house officer[17] and in the hospital component of vocational training for general practice[18] does little to change this way of thinking. Despite the recent widespread adoption of adult learning methods by vocational training it would be optimistic to imagine that one year of practice-based training is successful in converting the majority of trainees to self-directed learning by the time they emerge as principals.[19] Moreover, the large majority of established general practitioners have either not been vocationally trained or completed their training in an era before andragogy[20] held sway.

It is characteristic of dependent learners that they look to teachers to 'provide' education either directly or through the dissemination of 'learning' materials.[16] On this basis, the attraction of many established general practitioners to lectures by specialists and to the plethora of journals for their continuing medical education is understandable.[21,22] The advent of the postgraduate

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education allowance has legitimized and rewarded this view of continuing medical education; it reinforces dependent learning among established general practitioners. The work of Perry,[23] Levinson[24] and others[25] on the intellectual development of learners has in common the idea of progress from dependency to autonomy. Given the nature of much medical education and training in the UK, this development is retarded in many (perhaps most) recruits to general practice. It follows that a key task for continuing education is to help those entering general practice to understand the present stage of their educational development.[23]

Survey evidence suggests that almost all established general practitioners acknowledge a professional responsibility to continue learning.[22] However, general practitioners need coping strategies to manage the many factors which may compromise their motivation.[26] These include, for most, time pressures and family commitments; for some, low levels of job satisfaction and circumstantial factors are also involved. At present, education and training fail to equip young principals with the time management and other skills required to understand and manage these problems.[27]

Evidence from institutional education suggests that individuals have differing approaches to learning: surface, deep and strategic.[28,29] There is a correlation between these approaches and the subsequent understanding of learners.[30] Learners adopting a surface approach are motivated primarily by a fear of failure or a concern to qualify and hence memorize subjects with little or no understanding, whereas those adopting a deep approach are intrinsically motivated, more able to make personal meaning of their previous knowledge and experience, and are more autonomous. The strategic (or achieving) approach indicates competitive, ambitious learners who are determined to do well, whatever is required.

However, the individual's approach to learning is influenced by many factors.[31] These include the personality of the learner, the preferred learning style, learning formats and the context in which learning is taking place.[32] While the deep approach will usually be the most appropriate one for established general practitioners[33] it may be simplistic to apply labels derived from the institutional education of young people to established professionals who must make their own choices about what and how to learn. The important lessons for continuing medical education in general practice are that in its selection of learning formats and in the context of learning it should not encourage a surface approach.

Context of learning

For adults, learning from experience is a natural process, albeit an inefficient one. It can be asserted with some confidence that, in UK general practice, clinical experience is an abundant commodity: on a typical working day a general practitioner is involved in 30–40 face to face interactions with patients. Moreover, general practitioners are responsible for the governance of a small business,[34] involving a range of managerial responsibilities; they must interact with a range of diverse professionals and organizations; and, as purchasers of secondary and community care,[35] they are required to make strategic decisions involving the prioritization of problems and resources. The majority of general practitioners see patients and practice as important sources of learning[9,22] and established doctors probably learn best at their own workplace when challenged by problems arising from their professional activity.[4,6,36] By experiential, or experience-based, learning is meant a process of meaningful and autonomous learning which leads to comprehension and understanding — the learner can make sense of what he or she has learned and relate it to other things.[37,38] Experiential learning is one of the fundamentals of andragogy which assumes that adults are self directed, aware of learning needs, competence oriented in their learning approach and learn more effectively from experience.[39,40] Moreover, experiential learning, which other professions have shown to be valuable,[41] appears to be particularly appropriate to general practitioners, who may be geographically and/or professionally isolated.[42]

However, many learning opportunities are missed in the midst of daily actions: 'When you are caught up in a cycle of survival from one day or week to the next, it is very difficult, if not impossible, to pull back from the situation and take a good look at what is happening right under your nose.'[43] Thus, continuing medical education should endeavour to create among general practitioners both a high level of awareness of, and a systematic approach to, the learning opportunities presented by day-to-day experience.

Goals: competence and performance

Broadly, competence is 'a quality possessed by an individual as a result of learning'[44] and can be defined as 'a wide concept which embodies the ability to transfer skills and knowledge to new situations. It encompasses organization and planning of work, innovation and coping with non-routine activities. It includes those qualities of personal effectiveness that are required in the workplace to deal with co-workers, managers and customers.'[45,46] There is considerable controversy about the nature of competence for medical practice and, particularly, how it might be measured.[47] While recognizing the desirability of resolving these issues, we suggest that in the interim pragmatic decisions are needed on how continuing education can best contribute to improving the competence of general practitioners.

It is widely recognized that the clinical problems encountered in general practice are often atypical of those described in medical textbooks or used in formal teaching: '...everyday reality ... consists of multiple possibilities, conflicting motives and emotions, competing priorities as well as difficulties in communication.'[48] Moreover, the management of such problems is equally complex involving, over and above strictly clinical expertise, skills of negotiation, conciliation, persuasion, teamwork, intersectoral collaboration and, rarely, pre-emptive action. A similar battery of skills is needed for the organizational responsibilities of the general practitioner; in addition, fundholding requires skills of strategic planning.[35] In order to become competent in a world for which they are ill-equipped by their education and training, general practitioners must rely heavily on learning from everyday experience.

However, a key issue for the newly established professional is the pattern of clinical competence to which he or she aspires. If, as a dependent learner, this is derived in large part from specialist (biophysical) explanatory models, it is likely to misdirect learning towards inappropriate goals.[49] Becoming more patient-centred,[50] through the acquisition of communication skills during vocational training, while a prerequisite, is not sufficient: established general practitioners who remain dependent learners will attempt to gain and apply inappropriate competences in their daily work. If, on the other hand, general practitioners are encouraged to use experience to identify more appropriate patterns of clinical and organizational competence they will discover the advantages of self-directed learning.[51]

This discovery, while an essential step, carries two risks: on the one hand, rejection of all continuing medical education provision as irrelevant; on the other, dissipation of precious motivation upon unfocused small-group work in an attempt to find solutions in the company of fellow sufferers.[27] A key task, then, for continuing education is to help general practitioners to find in their professional experience, not just the learning agenda

required for competence, but also ways in which to focus their learning activity.

While competence is the capacity of an individual to act in a given situation at the required level, performance describes the actions of the individual when, in reality, confronted by the situation. This distinction, which has not always been made in the literature on competency-based learning,[46,47] is likely to be a critical one for general practice if we are to avoid, for example in reaccreditation, the fallacy of assuming that the competent, however defined, always perform competently. Medical audit, which can evaluate clinical and organizational performance, is thus a crucial element of continuing medical education for general practice. As an integral part of the self-directed learning of individual general practitioners, audit can reveal underperformance arising either from lack of skills or of motivation to apply them, and as important, reinforce appropriate performance.

A strategy for continuing medical education

Currently, continuing education for general practice is provided by a wide range of professional, commercial and other interests. Validation of continuing education provision for the postgraduate education allowance is a statutory function of regional advisers and strategic planning the responsibility of regional general practice education sub-committees. However, privately regional advisers admit that quality control of continuing medical education provision is largely ineffective; strategic planning is significantly handicapped by the operation of a market in continuing medical education provision.

As a solution to this unsatisfactory situation we propose that those involved in the strategic planning of continuing education for general practice adopt as their mission the idea that 'education is the intelligently directed development of the possibilities inherent in ordinary experience.'[52] To achieve this, general practice education sub-committees must recognize that established general practitioners are at various stages in the transition from dependent to self-directed learners; have varying levels of motivation and capacity to learn; are working towards patterns of competence which are more or less appropriate to the work of the community-based generalist; and that much current continuing medical education provision is irrelevant or dependency producing (or both).[23-25, 53-55]

Thus, an appropriate strategy for general practice continuing medical education will recognize the educational starting point of the learner, the learning potential of professional experience and the need to develop competence continually in response to the changing demands upon primary medical care.[56-58] Those involved in validating continuing medical education must first, prevent it doing more harm and secondly, make the conversion of general practitioners to self-directed learning based on experience their major priority. Thereafter, the form and content of continuing education provision will be dictated, in large part, by issues stemming from the systematic experiential learning of individuals.

A model of self-directed learning

A model is proposed which connects experience and competence for the established general practitioner through self-directed and systematic use of three principal learning media: reading, reflection and audit (Figure 1). To the right of the model are examples of participation in continuing medical education which foster experiential learning among individuals and groups of general practitioners. The model represents the learning of the individual as a three sided pyramid grounded in experience. On one face three interconnecting and converging media of learning are represented; on another, three sequential steps in the processing of experience; and the third face is available for external educational input and expression, for example, the activities listed to the right of the figure. Thus, experiential learning by a general practitioner is represented as the outcome of a complex interaction occurring at the core of the pyramid between the individual characteristics of the learner, the entities represented on each of the three sides and the learner's immediate experience.

The term learning medium — 'means by which something is communicated' (*Concise Oxford dictionary,* Oxford University Press, 1979) — has been adopted to describe an activity undertaken with the aim of learning, which may or may not be well-

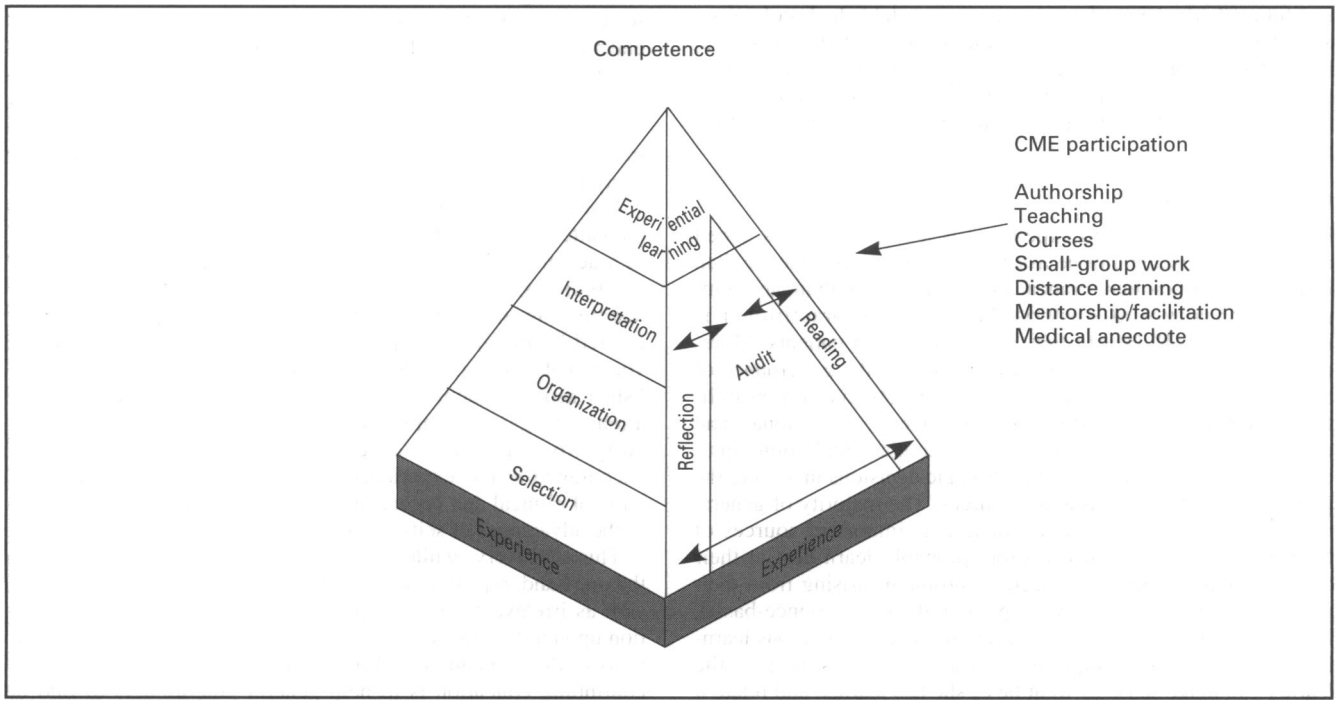

Figure 1. *A model of self-directed learning and continuing medical education participation for established general practitioners.*

directed or methodical. The media chosen represent the familiar elements of self-directed learning for the established general practitioner: they represent habitual (reading), innate (reflection) and required (audit) means of learning from experience.

A more systematic approach to experiential learning requires, not simply the identification of appropriate learning media, but also ways in which the media can be exploited more effectively by the learner. Three steps in the learning process are identified which fix and progressively refine experience for the individual, namely selection, organization and interpretation.

While currently there is both a considerable choice of continuing medical education provision and high level of uptake by general practitioners,[9,10] participation is often superficial or non-existent. A change in emphasis to self-directed learning based on experience implies a higher level of participation by individuals and the adoption by providers of continuing medical education of appropriate learning formats. The latter will both foster self-directed learning among participants and use the experiential learning outcomes of individuals as material from which others can learn. Mentorship, facilitation and small-group work are examples of highly participative continuing medical education provision, in which general practitioners are encouraged to draw upon their individual experience in order to share learning with colleagues.

Conclusion

It is not our intention to claim that the model presented is a complete view of the learning process for established general practitioners. Rather, it aims to provide a well-founded but essentially pragmatic approach for general practice continuing medical education. Neither should the way the model is drawn be taken as indicating that any one of the three learning media (reading, reflection and audit) is quantitatively more important than any other; the balance between them will vary both between individuals and in the same individual over time. It is important to emphasize that the chosen learning media are not separate but interdependent: reading may complement audit and vice versa, reflection will spring from, and in turn trigger, audit or reading. While systematic use of the media promotes the individual's learning from experience, certain activities shared with others are seen as contributory.

Above all, our aim in devising the model is to reveal neglected connections between experience, learning, competence and performance. Its form suggests that much experience is required to produce a small change in competence; in fact such a quantitative relationship, while likely, cannot be proved. Fortunately, whether experience is 'distilled' in this way or operates intermittently through 'forceful' incidents[59] does not affect the argument. It is hoped that the model will, at least, represent a starting point for debate within general practice on these issues. Certainly, the role of self-directed learning merits re-examination, given the influence of the postgraduate education allowance in equating education for established general practitioners with predominantly dependent learning in the form of attendance at meetings and courses.

The focus, then, is upon the individual as learner and those habitual, innate or obligatory learning activities which general practitioners share. The notion that we are all able to learn from professional experience is hardly new and will come as a surprise only to the most hardened pedagogues. However, 'relatively little thought seems to have been given to the way in which we learn from every day experiences, or to developing methods for helping us to learn more effectively.'[60] In a second paper a practical approach to experiential learning by general practitioners based upon the model is presented.[61]

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