

Audit and academic departments of general practice: a survey in the United Kingdom and Eire

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SUMMARY. A questionnaire and telephone survey was carried out in April 1991 of all 31 academic departments of general practice in the United Kingdom and Eire; 30 departments responded. The aim of the study was to assess the departments' level of involvement in teaching about audit in the undergraduate curriculum, their role in the development of audit in primary care including involvement with medical audit advisory groups, whether they undertook teaching about audit to other health professionals and whether they were involved in audit related research. Eleven of 27 responding undergraduate departments provided formal teaching about audit and five intended to introduce it in the near future. Respondents expressed concerns about teaching audit to undergraduates, including lack of time in the curriculum, difficulties making the teaching relevant and interesting, and a lack of expertise and knowledge of the subject among the staff. All 29 departments in the UK were represented on medical audit advisory groups, and audit related research was being carried out in 24 undergraduate departments. The role of academic departments of general practice in the development of audit in primary care is discussed.

Keywords: undergraduate education; audit; curriculum.

Introduction

THE National Health Service review working paper on medical audit noted that audit should form part of the training of junior medical staff.¹ This was reiterated in a report from the standing medical advisory committee which stated that 'an understanding of the principles of medical audit must become an established part of undergraduate and postgraduate education'.² This has been taken up by the General Medical Council in a consultation document about the need for change in the undergraduate curriculum which has been circulated to medical schools for comment. The document sets out 14 essential elements of basic medical education, one of which is 'the development of a capacity for self-audit and for participation in the peer review process'.³

The NHS review working paper also made recommendations about the composition of the proposed medical audit advisory groups and suggested that the inclusion of members of academic departments of general practice should be considered.¹ A later health circular on the organization of audit in primary care repeated this recommendation.⁴

The aim of this survey was to ascertain current levels of involvement of academic departments of general practice in both the teaching of undergraduates about audit, and their role in the development of audit in primary care in terms of membership of medical audit advisory groups, research and teaching other health professionals about audit.

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Method

In April 1991, a questionnaire was sent to the heads of all 28 undergraduate departments of general practice in medical schools in the UK and Eire (21 in England, four in Scotland, one in Northern Ireland and two in Eire). Questions were derived from experience and discussion with colleagues in departments teaching audit. The questionnaire asked for details about the teaching of audit as a formal topic in the undergraduate curriculum, including when the teaching took place, the teaching methods used, the amount of time spent on the subject, assessment and feedback (rating feedback on a five-point scale from 'highly favourable' to 'very unfavourable'), and whether any other departments in the medical school were known to be providing similar teaching. Comments were invited, particularly about concerns and problems. A second section asked about membership of medical audit advisory groups, teaching of other health professionals, and research activity in relation to audit. Non-respondents to the questionnaire were telephoned as a reminder.

In addition, a telephone interview was carried out with a senior member of each of the three postgraduate departments of general practice in England. The questionnaire was not used as it related mostly to undergraduate teaching. Instead questions were asked about involvement with medical audit advisory groups and about teaching and research about audit. A total of 31 academic departments of general practice were thus invited to be involved in the survey.

Results

One of the two medical schools in Eire returned the questionnaire uncompleted because the questions were not felt to be applicable. Thus, 30 of the 31 academic departments responded — 27 undergraduate departments and all three postgraduate departments.

Provision of teaching about audit

Responses from the 27 undergraduate departments revealed that 11 (41%) currently provided formal teaching about audit and this took place in the clinical years. Two departments had appointed a lecturer in medical audit. Project work alone formed the basis of the teaching about audit in three departments, in two departments project work and seminars were the teaching methods used, in one department project work, seminars and course notes were used, one department had seminars only and two departments used a lecture and project work as the teaching methods. Two undergraduate departments gave lectures on audit. There was a wide variation in the estimated amount of time devoted to the subject with a mean of 15 hours, ranging from 1.5 hours to one week. The students' work was formally assessed in seven of the 11 departments, contributed to the course marks in five, and in one department the work was used as the basis for an oral examination.

Although the methods of assessment and eliciting feedback were not ascertained, generally feedback from both students and tutors was favourable. Of the 10 respondents answering the question regarding students' feedback about audit teaching, eight respondents indicated that either favourable or very favourable feedback had been received from students. One respondent in-

dicated that feedback had been indifferent, and one that it had been unfavourable. Of the nine respondents to the question on tutors' feedback, seven indicated favourable feedback, one indicated indifferent feedback and one indicated unfavourable feedback. The main criticisms from students were about the time spent on data collection, in particular data extraction from medical records, and the fact that they were not auditing their own work.

Of the 16 undergraduate departments (59%) not currently providing teaching about audit, five intended to introduce it in the near future, in all cases following an anticipated increase in curricular time. Ten of the 16 respondents from departments not teaching the subject mentioned lack of curricular time as a major constraint. Departments of public health medicine in eight medical schools were thought to be providing teaching in audit. Only one was in a school in which the department of general practice was not teaching about audit.

Problems associated with teaching audit

An open question asked for comments about problems, theoretical and actual, with teaching undergraduates about audit. From the comments received, seven factors could be identified: lack of time in the curriculum; difficulty making the teaching relevant and interesting; lack of expertise and knowledge among staff; the problem of compartmentalizing audit as a separate topic; negative attitudes in the medical faculty; teaching not being linked to students' own clinical work; and audit being considered a postgraduate topic. Despite these concerns, several of the respondents not currently teaching audit expressed the opinion that the principles of audit and evaluation of health care were important topics and ideally should be included in the undergraduate curriculum.

Medical audit advisory groups

All 29 UK academic departments of general practice, including the three postgraduate departments, had input to their local medical audit advisory groups or equivalent audit committee in Scotland (this was not applicable in Eire). In all, academic departments were represented on 62 medical audit advisory groups ranging from one group per department to 11. Fourteen departments were represented on one medical audit advisory group only, seven were represented on two, five were represented on three groups and three were represented on four or more groups. At least 67 members of staff were involved, including nine who were chairmen of medical audit advisory groups.

Teaching and research about audit

Of the 30 academic departments, 23 were involved in teaching other professionals about audit, including practice nurses, practice managers and other ancillary staff, vocational trainees, hospital consultants, general practitioner colleagues and medical audit advisory group chairmen, members and facilitators.

A total of 24 undergraduate departments were undertaking audit related research in a wide range of areas (Figure 1).

Discussion

The traditional overcrowded undergraduate curriculum with its emphasis on the accumulation of factual knowledge does not lend itself readily to teaching about audit. There is, in any case, little of a purely factual nature to 'know' about audit, other than an appreciation of the different methods of audit available and an understanding of simple statistics. On the other hand, the key skills and attributes that would underpin 'the capacity for

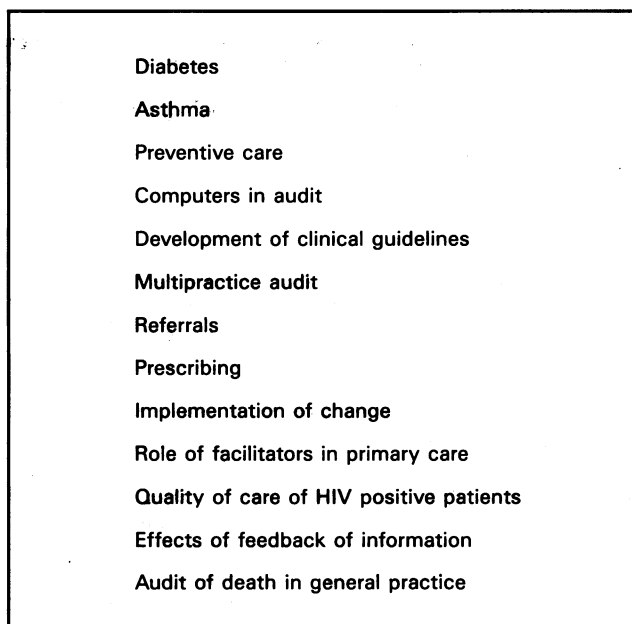


Figure 1. Areas of audit-related research undertaken in 24 undergraduate departments of general practice.

self-audit and for participation in the peer review process³ include critical thinking, an understanding of clinical decision making, a facility for gaining access to knowledge (for example, the use of medical literature), an appreciation of how groups and organizations function and of change management, the ability to communicate with colleagues, an awareness of personal limitations and an ability to seek help when necessary. Many of these are attributes which the proposed curricular changes would hope to nurture, and it will be interesting to see how different medical schools approach the problem of introducing teaching about medical audit in a way that engages students and encourages them to look critically at their own work.

Less than half (41%) of the undergraduate departments of general practice in the UK reported providing formal teaching about audit. Further, although the extent of the input provided by public health departments was not ascertained, anecdotally it would seem that there is little teaching about audit elsewhere in the curriculum in the majority of medical schools. This is an unsatisfactory situation since audit and peer review need to be seen by students to be part of day to day clinical practice. The lack of role models was highlighted as a specific problem impeding the introduction of such teaching in a medical school in the United States of America.⁵ At present, audit may be seen by students as a peripheral activity undertaken and taught by a few enthusiastic general practitioners.

Concerns were expressed by those who were teaching the subject, as well as by those who were not, about the relevance of such teaching to students who had little or no clinical responsibility, about the pressures on curriculum time, and about the choice of appropriate teaching methods. Five departments intended to introduce the topic in the near future, the rest being deterred in the main by curriculum overload. However, anxieties were also expressed about the disadvantages of compartmentalizing audit as another part of learning to be dealt with in isolation. Since medical audit is a relatively new, even threatening activity for some clinicians, there may be a problem in involving students in the full range of audit activities. Nevertheless, as experience and confidence grow, students and their clinical

teachers may find themselves learning together. The forthcoming General Medical Council recommendations on basic medical education put the need for such teaching clearly on the agenda.

Curriculum review committees may have much to learn from the experience of other countries. For example, authors in the USA have identified a number of issues related to teaching about audit and quality assurance. These issues include the fundamental importance of establishing a culture of self enquiry among students,⁶ the need for continuing evaluation and review of such teaching and the advantages of ensuring that students have a major input into the planning of the course,⁷ and the question of the timing of the teaching. Regarding this issue, one author asserted that 'in introducing the audit system timing is an important factor in the acceptance of the review concept' and advocated exposure as early in the curriculum as possible.⁸

Others, however, have questioned the value of introducing the topic in the early stages of the undergraduate course when it may prove unpopular with students who give it a low priority because it is not perceived as being relevant.⁹ Clearly, there is a need to ensure that the teaching is appropriate to the needs of the student and is introduced when it can be incorporated into the clinical experience.⁵ Meanwhile the situation in other European medical schools, for instance in the Netherlands, appears to be much the same as in the UK with a variable degree of involvement of academic departments of general practice in teaching about audit (van Weel C, personal communication).

The General Medical Council has set a target of a decade for curriculum change, and the pace will obviously differ between medical schools.³ The majority of British undergraduate departments of general practice active in the area of audit base their teaching around individual and group project work,^{10,11} a format which is likely to encourage attributes such as self education, reflection and conceptual and critical thinking.¹² Projects will often involve extracting data from medical records, and two criticisms from students reported in this study were that this was time consuming, and that the students were evaluating someone else's care rather than their own. Nevertheless, involving students in drawing up the criteria against which the medical notes are audited provides an important learning opportunity. Despite these problems, the survey respondents indicated that feedback from students was generally favourable. Evaluation of project work has been shown to be of benefit to patients¹³ and to have resulted in a perceived attitudinal shift among tutors as well as in some changes in practice organization (Spencer J, unpublished results). A New Zealand medical school developed a seminar on quality assurance which used role play and critical incident analysis as well as some didactic teaching. Evaluation showed a positive attitudinal change towards the subject.¹⁴

Employing a medical student to audit the practice has been recommended as being of mutual benefit to all parties¹⁵ and one of the four national pilot medical audit advisory groups invited bids from practices for teams of medical students to spend a week on a specific audit project in the chosen practices.¹⁶ Every effort must be made to ensure that the experience is truly educational and that students are not just used as a source of cheap labour.

Academic general practice was represented on 62 medical audit advisory groups. The degree of involvement varied but all departments were represented. Members of academic departments have a considerable amount to contribute. First, as educationalists they bring an understanding of the educational process and often considerable experience of running and organizing courses. Secondly, they have an understanding of research methods and will act as an increasingly important resource as medical audit in general practice develops. The wide range of audit related

research activity reported indicates the degree to which departments were already involved in the development and validation of audit methods. Finally, by virtue of their contact with a wide range of health professionals, they have an appreciation of their respective needs which will be of value to those medical audit advisory groups adopting a multidisciplinary approach.¹⁷ There is, of course, the potential for conflict between service general practitioners and academics. The fact that there were at least nine medical audit advisory group chairmen from academic general practice suggests a degree of confidence that is encouraging.

In conclusion, the results from this postal questionnaire suggest that undergraduate departments of general practice are providing most of the teaching about audit in the undergraduate medical curriculum in spite of a number of concerns and problems. The changes in the undergraduate curriculum proposed by the General Medical Council will result in a need for more teaching in audit and undergraduate departments of general practice may have a great deal to offer. All academic departments, including the three postgraduate departments of general practice, appeared to be an important resource in the development of audit in primary care through their involvement with medical audit advisory groups and teaching and research about audit.

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