A role for clinical audit and peer review in the identification of continuing professional development needs for general dental practitioners: a discussion

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The purpose of this paper is to discuss how the role of peer review and clinical audit may be used in the identification of the continuing professional development (CPD) needs of general dental practitioners (GDPs). Clinical audit and peer review are intrinsically valuable in terms of the continued professional development of GDPs. Collaborative clinical audit, in particular, can provide a framework for short course input and there are particular benefits to this combination of activities which might usefully be more widely encouraged. If open to analysis in a way which retains individual anonymity, peer review and clinical audit résumés, these could be used to inform the provision of CPD and, linked to the knowledge of audit facilitators, short courses might more closely match the CPD needs of local dentists.

The importance of continuing professional development for all dentists has received considerable attention[1,2,3] and there has been a proliferation of national, regional and local provision, particularly for general dental practitioners, the largest group. There is evidence of considerable, if varied, take-up of these opportunities.[4,5,6,7] A recent study,[8] found enthusiasm for postgraduate courses: eight-nine per cent of the study group had attended two or more sessions within the last twelve months. However, they note that in order to meet the GDC's recertification proposals, the majority of the group would need to further increase their level of participation, raising 'formidable challenges for providers of postgraduate education in meeting potential future demand'.[8] In a study, Belfield *et al* [9] focused it on the evaluation of short courses for GDPs in the West Midlands and found that individual participation in CPD was unstructured and typically unrelated to an individual, regional or national needs analysis. The former Committee on Continuing Education and Training in Dentistry set national priority areas and approximately half of the short course provision (Section 63) in the West Midlands related to these priorities.

This body has been replaced by the National Centre for Continuing Professional Education of Dentists' (NCCPED) advisory committee which now identifies priority topics. However, in the West Midlands, local needs are only assessed informally by clinical tutors and the postgraduate dental dean. There is no systematic approach to gaining knowledge about the CPD needs of GDPs in the deanery. In the past a number of clinical tutors have sent questionnaires to GDPs but response rates have been poor. As part of the study[9] a group clinical audit was linked to a Section 63 course (now known as Medical and Dental Education Levy Continuing Professional Education [MADEL CPE] courses) and this paper explores how clinical audit and peer review processes might play a role in the identification of CPD needs for GDPs.

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Peer review and clinical audit

In peer review, groups of dentists meet together, share experiences and identify changes that could lead to improvements in their service to patients. The peer review scheme has been in operation since the early 1990s and, after five years, over one third of the GDP population in England had taken part.[10] Funding for peer review (and clinical audit) is provided by the Department of Health and the scheme is overseen by the Central and Local Audit and Peer Review Assessment Panels (CAPRAP and LAPRAPs). The LAPRAP approves peer reviews or clinical audits and requests funds for them from NCCPED.

Peer review groups usually consist of between four and eight dentists from at least two different practices. The review is normally completed in eight sessions (of at least two-and-a-half hours) within nine months. At the end of the review, the convenor completes a form summarising the project and submits this to the LAPRAP. Clinical audit, if undertaken by an individual dentist, is completed in six sessions within four months. Collaborative audit, undertaken by between two and eight dentists working together, is normally completed in eight sessions within nine months. A summary of the audit is completed on a form and sent to the LAPRAP.

The clinical audit scheme was introduced in 1995 and was designed to enable GDPs to build on their peer review activity. Clinical audit goes further than peer review: the dentist identifies standards and measures practice against these, implementing change or addressing educational need. In peer review, the identification of standards, change or educational need might be the end point of the process. The Department of Health[10] described the aim of clinical audit as encouraging:

… individual general dental practitioners to self-examine different aspects of their practice, to implement improvements where the need is identified and to re-examine, from time to time, those areas which have been audited to ensure that a high quality of service is being maintained or even further improved. (paragraph 18)

Clinical audit is thus conceived as a continual process with the practitioner revisiting those areas of practice which have been audited with the aim of improving practice. Power[11] in writing of the 'audit explosion', usefully distinguishes this type of practice-led auditing from the more controlling variety:

Many audits, for example in medicine, are conceived primarily as internal reviews to improve decision-making… intended to support rather than to discipline, and very different from ex post verifications which have much more the character of policing role and for which the independence of the auditor is crucial. (p289)

Clinical audit is a good example of audit designed to improve decision-making and as such is driven by educational rather than controlling motives. It is supported by facilitators and audit advisers. The role of the facilitator is to advise those engaged in the process by helping in the design and implementation of the audit. The adviser, one for each LAPRAP, oversees 'the work of the facilitators in the area' and advises 'the LAPRAP on audit matters'.[10]

An example of clinical audit method

As part of the development of an evaluation procedure for short course provision, the research team followed a collaborative clinical audit linked to a MADEL dental CPE (Section 63) course.

Within the study, the principal purposes of the exercise were to: explore whether clinical audit is a useful tool in assessing the educational value of a short course; discover whether clinical audit improved the educational value of the course by preparing participants to learn; and, to compare the responses to the evaluation questionnaires of the two groups (audit and non-audit) attending the course. For fuller discussion, see Belfield *et al.*[9] An unintended outcome of this study was an awareness of the potential role clinical audit might play in CPD needs identification. This is the focus of the discussion presented here.

The audit process

In the period between September to December 1997, the clinical audit group met on three occasions. At the first meeting the group discussed the audit focus and set standards. Between this and the second meeting, members of the group spent one day measuring performance in their own practice (each auditing 20 patients).

The second meeting immediately followed planned attendance at a MADEL dental CPE (Section 63) course (Behavioural Management and Pain Control) related to the audit topic.

All participants (20 in total; 11 from the clinical audit group, including the facilitator) completed a pre-course questionnaire (designed to assess expectations, prior knowledge and beliefs) a post-course questionnaire (incorporating the standard immediate post-course questionnaire) and a delayed impact-on-practice questionnaire. The course presenters completed self-evaluation forms. At the meeting following the course, the group discussed initial findings and focused on the remaining audit period. Measuring sessions in their dental practice then followed over a six week period, with each member of the group keeping a written record. At the final meeting, the results and associated CPD needs were analysed, including a general discussion about how courses are selected and the benefits of CPD.

Results

At the first meeting, the group decided to audit either (a) their behaviour with patients or (b) local anaesthetic (LA) dosage (including number of injection sites and number of cartridges). At the second meeting, following attendance at a day-long course on behavioural management and pain control, the group decided to focus the audit on the amount of local anaesthetic used in infiltration and blocks. This choice was influenced by the difficulty of monitoring behaviour with patients and by recent revised guidance on LA dosage.

From the course evaluation, differences between the responses of the two groups (clinical audit and non-clinical audit) to the specific pre– and post–test questionnaires were not notable. Responses to the impact –on–practice questionnaire provided some indication that effect on practice was greater among the clinical audit group but, the numbers are small and it would be unwise to draw out generalisations.

Further, it is difficult to disentangle the effect on practice of the course from the clinical audit process itself, particularly as the time spent on audit was greater than on the course. For fuller discussion, see Belfield *et al.*[9]

The audit results

The audit results showed that during the audit period, a decreasing number of injection sites and LA cartridges were used. The group's response to these results was to continue with the practice of using fewer cartridges. However, they were hesitant to decrease the number of ID blocks; the audit had shown that in practice they already used fewer blocks than they initially thought. Audit helped identify discrepancy between perception of practice and actual practice.

Professional development

This clinical audit had two special features: (i) it was a collaborative audit involving ten

GDPs (normally, not more than eight take part); and (ii) it was linked to a MADEL dental CPE (Section 63) course.

These features added value to the experience in terms of professional development. The collaborative clinical audit itself was a learning experience for the participants. The activity involved the systematic collection and analysis of data directly related to practice. This information was then disseminated to the group and the results and different practices discussed. Further, this audit was linked to a continuing education course which provided CPD input on behavioural management and pain control.

A feature of the meetings was discussion of wider CPD needs. At the end of the clinical audit, the facilitator had a good knowledge of this group's CPD needs. At the final meeting, the group discussed the benefits of CPD and specifically, how they selected courses. In choosing a course, they would assess expected learning against cost (in terms of earnings foregone). Evening courses were valued, although two–and–a–half hours after a full day's work was not desirable. They expressed the view that this minimum two-and-a-half hours requirement for MADEL dental CPE (Section 63) funding was driven by financial rather than educational principles. Criticisms were also made of some day-long courses which could be condensed rather than extended to fill the time.

In selecting courses to attend, the group reported being guided by recognition of a personal need to improve in a specific area. In terms of expected learning, clinical courses were judged to be more predictable than non-clinical courses: with clinical courses it was easier to anticipate the content of the course; there was thought to be greater uncertainty in non-clinical courses. A 'bad' course was judged to be one which did not meet the objectives as set out on the flyer.

Hands-on courses were popular, especially those that included practical tips, examples of new products and details on the costs of equipment. This view was summed up by one who commented: 'dentists are practical people who want practical courses.'

Informing the provision of CPD discussion

From the clinical audit example outlined, the MADEL dental CPE (Section 63) course helped to shape the audit focus and informed the target setting. However, a course is clearly not essential to a clinical audit since information on target setting can be provided, for example, by the audit facilitator or from journals. This example is atypical and the knowledge the facilitator gained about CPD needs was more extensive than had the group been smaller. In addition, some of these professional development benefits would not be gained by a GDP undertaking clinical audit alone. For example, working alone, a GDP would not gain from the sharing of audit findings and discussion of practice.

However, it can be argued that if one group finds a topic sufficiently important to engage in clinical audit then it could be valuable to provide a short course on the topic, open to all. Such a course would provide an ideal opportunity for the GDPs to share the results of their audit. An assumption here though, is that the selection of peer review and audit topics is driven by professional development needs rather than convenience and personal preference.

However, the role of the facilitator and the duration of the activity might suggest that the choice of topic is less subject to whim than might be the choice of other forms of continuing educational activity. It should be stressed that some of these professional development benefits would not be gained by a GDP undertaking clinical audit alone. For example, working alone, a GDP would not gain from the sharing of audit findings and discussion of practice.

The Department of Health[10] recognises that 'a Peer Review may point up the need for dentists to pursue some educational activity' (paragraph 10 (d)) Peer review and clinical audit résumés sent to the LAPRAP might provide a useful data source for a bottom up analysis of the CPD needs of dentists. The work of Fleming[12] and Eaton *et al*[13] on the analysis of information contained on the peer review résumés is valuable. They report, for example, data on the types of topics selected. However, it is not clear if such information is subsequently used to inform CPD provision. CAPRAP maintains a database of 'analyzed completed Clinical Audit and Peer Review reports'[10] (paragraph 41 (7)). Form CA2 specifically asks for details of any educational needs that have been identified during the clinical audit and CA3 (the end of audit report) asks about training needs.

In providing CPD opportunities that match local needs, the issue seems not to be one of availability of information but rather one of access to data (audit and peer review are confidential to participants) and, where the data are reviewed, how that links into a CPD planning cycle.

Conclusion

It seems that part of the solution to a more systematic analysis of local CPD needs is readily achievable. The CAPRAP database of summaries of peer review and clinical audit procedures could be analysed for CPD needs (in a way which maintains individual anonymity) and, at the local level, audit facilitators could review this national picture and adjust it in the light of their knowledge of the local situation.

In planning the provision of short courses, much could be learned from facilitators who work with audit groups. In agreeing an audit topic, discussion often reveals learning needs and identifies issues of the day.

Clinical tutors are responsible for providing a local programme of short courses: if they also happen to be audit facilitators or can meet with them, they would have a valuable overview of the continuing professional development needs of local GDPs.

Clinical audit also provides a framework for short course input. The example demonstrates the particular benefit derived from the incorporation of a continuing education course into a well structured collaborative clinical audit. At the final clinical audit meeting, the group expressed the view that they were able to get more from the course by preparing for it and following it up afterwards. In this sense, the clinical audit brought benefits to the participants' experience of the course. This combination of activities might usefully be more widely

adopted.

Further, such a procedure and the clinical audit process, could be linked to an assessment of the impact on practice, of the short course. From the example, those taking part in the clinical audit described here had a context or framework for the MADEL dental CPE (Section 63) course and audited their practice in the light of what they learnt in the course.

At the final clinical audit meeting, the group expressed the view that they were able to get more from the course by preparing for it and following it up afterwards. In this sense, the clinical audit brought benefits to the participants' experience of the course.

Clinical audit and peer review are of themselves intrinsically valuable in terms of the continued professional development of GDPs. When coupled to an analysis of peer review and clinical audit résumés and the knowledge of local audit facilitators, these processes could be used to develop more coherent and structured CPD. An integrated framework for CPD within a deanery could make individual participation less random and ad hoc, and instead, mutually reinforcing and more effective as a result.[14] However, such a framework would need also to include national priorities and leading edge developments which might not arise from an analysis of peer review and audit topics.

Collaborative clinical audit in particular has the potential to provide groups of dentists with a more integrated approach to their professional development.

Key features of this process include an analysis of needs, experience of professional, shared learning, evaluation and development. Indeed, Eaton *et al*[13] highlight the value of peer review in enabling 'collaborative reflection on professional practice' (p182). Collaborative clinical audit also presents opportunity to disseminate individual, systematic enquiry. There is scope to develop this dissemination further by representatives of the group, or the facilitator, leading local courses.

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References

1 General Dental Council. *Statement on Continuing Education.* London: GDC, 1993
2 General Dental Council. *Reaccreditation and Recertification for the Dental Profession: A Consultation Paper.* London: GDC, 1997
3 *A First Class Service.* London: Department of Health, 1998
4 Mouatt, Veale B and Archer K. Continuing education in the GDS: an England survey. 1991; **170**: 76-79
5 Walmsley A D and Frame J W. Dental practitioner attendances at postgraduate courses in a dental school. *Br Dent J* 1990; **169**: 61-63
6 Walmsley A D and Frame J W. Dental practitioner attendances at postgraduate courses in a dental school 1988-90. *Dent Update* 1992; 129-131
7 Mercer P E, Long A F, Ralph J P and Bailey H. Audit activity and uptake of postgraduate dental education among General Dental Practitioners in Yorkshire. *Br Dent J* 1998; **184**: 138-142
8 Ireland R S, Palmer N O and Bickley S R. A survey of general dental practitioners' postgraduate education activity and demand for extended modular postgraduate programmes. *Br Dent J* 1999; **187**: 502-506
9 Belfield C R, Bullock A D, Butterfield S, Frame J W and Ribbins P M. *A Framework for the Evaluation of Short Courses in Dentistry: Final Report.* Birmingham: University of Birmingham, 1998 ISBN: 07044 19742
10 Department of Health. *Peer Review and Clinical Audit in General Dental Practice.* London: Department of Health, 1997 [Available at http://www.nccped.co.uk]
11 Power M. The Audit Explosion. In Mulgan G (ed) Life After Politics: New thinking for the twenty-first century pp286-293 London: Fontana Press 1997;
12 Fleming W G. Evaluation of the Pilot Peer Review Scheme for General Dental Practitioners. Birmingham: Soundings Research. 1996
13 Eaton K A, Fleming W G and Rich J L. A Report of an Evaluation of the Pilot Peer Review Scheme for General Dental Practitioners Working in the General Dental Services in England. *Br Dent J* 1998; **184**: 178-182
14 Davis D A, Thomson M A, Oxman A D and Haynes, R B. Evidence for the Effectiveness of CME: A Review of 50 Randomized Controlled Trails. *JAMA* 1992; **268**(9): 1111-1117.