Research, Audit and CPD

Are they compatible?

In the first of two articles, Suzanne Henwood and Karen Knapp explore the relationship between CPD and research in radiography.

Background

These articles arose from an enquiry from a Society member, which led ultimately to a request to the SoR research group to write an article outlining how research can be used as an effective form of CPD.

In this first article, we outline what is meant by research and audit and then explore the various components of research, suggesting ways that this could be considered and recorded as CPD.

We also relate our thoughts to KSF and the Professional Outcomes in **CPD Now** (the on-line CPD portfolio free to SoR members), in an attempt to bring this all together to make it easier for those who may be not so familiar with research. We wish to encourage those who are not yet research-active to think again of ways they could introduce it into their practice as part of their CPD activity.

At the end of the second article we will give some suggestions about recording your research activity reflectively in **CPD Now**.

What does 'research' mean?

When planning the articles, it seemed appropriate to look first at what we mean by research and audit. Doing a very quick search on the web, a number of definitions for each are given. Some of those for research include:

- Research is an active, diligent and systematic process of inquiry in order to discover, interpret, or revise facts, events, behaviours, or theories, or to make practical applications with the help of such facts, laws or theories. The term 'research' is also used to describe the collection of information about a particular subject[1].
- The systematic investigation into, and study of materials, sources, etc, in order to establish facts and reach new conclusions[2].
- Research is what we do when we have a question or a problem we want to resolve. We may already think we know the answer to our question; we may think the answer is obvious, common sense even; but until we have subjected our problem to rigorous scientific scrutiny, our 'knowledge' remains little more than guesswork or, at best, intuition[3].
- Research is a step-by-step process that involves collecting and examining information. We do research to improve our knowledge and understanding about the world we live in. It almost always involves finding out something new[4].

To bring this all together, it would appear that research is about asking a question, usually as a result of having made some observations, developing a theory related to those observations, and then rigorously testing the theory in a systematic way to see if it holds true.

Many of us, as radiographers, are already involved in some way in asking questions about how things could be done even better or in collecting information for research or audit studies. We may even be directly involved in formal research projects in our practice, not only helping to collect data, but also analysing and evaluating it, and certainly, as time goes on, more and more of us will be involved in, and will be leading on, research in clinical departments. It seems sensible, then, to use that learning about the research process as CPD, recording it accordingly in your portfolio of evidence, outlining your development in practice.

Defining 'audit'

Another closely related topic, which is sometimes deemed to be difficult to separate from research is audit. Audit and research are not the same thing, though many of the skills required to undertake each is shared across both disciplines (for example critical evaluation of literature and data, analysing and processing information and data). As with research, a quick web search on what audit is revealed a number of definitions, including:

- A systematic examination against defined criteria to determine whether activities and related results conform to planned arrangements and whether these arrangements are implemented effectively and are suitable to achieve the school's policy and objectives[5].

Clinical audit is slightly different again and can be defined as:

- A quality improvement process that seeks to improve patient care and outcomes through systematic review of care against explicit criteria and the implementation of change[6].

Clinical audit was introduced to the NHS in 1993. The 1997 White Paper, The New NHS, reinforced the position of clinical audit as an essential element of professional practice in the Health Service. Its aim is to improve the quality of patient care by exploring whether or not the most appropriate treatments were given, whether they were given in the best way, and whether there were any side effects.

Although clinical audit and research are related then, they are different and, in very basic terms, research is fundamentally about generating new knowledge. In relation to techniques or treatments, research would be around issues of technique or treatment effectiveness, or comparisons between different options available. Clinical audit, on the other hand, is used to ensure that any new knowledge is used in the best way to benefit patients, ie, it is the implementation of that new knowledge, once the 'best' has been defined.

One area of potential overlap is that both research and audit can sometimes look at whether or not the treatments are producing the 'right' outcomes. In audit, however, the focus would be on whether you were obtaining the expected outcomes (the measurement for this, of course, comes from research to establish those expected outcomes in practice). Clinical audit can also establish areas for new research, demonstrating a potential cyclical relationship between the two disciplines. These articles, then, will look at both research and audit and their relationship to CPD activity in radiography.

Relating research and audit to CPD

Let's first look at a definition of CPD: *The continuous and systematic maintenance, improvement and broadening of knowledge and skills and the development of personal qualities necessary for the execution of professional and technical duties throughout the practitioners' working life which constantly works to improve the service provided*[7]. This definition is based on that of the CoR[8], previously used in engineering and which was extended by Henwood, et al[7], to make explicit the need for impact on services. It is clear from that many of the elements outlined above can be found in the definitions we explored in research and audit. For example:

Improvement and broadening of knowledge and skills

One way to improve (find new) and broaden knowledge is to undertake research and to engage with research findings of others.

Working to improve the service provided

One way to make improvements in patient care and service provision is through conducting a clinical audit.

continued overleaf...

In this way, both research and audit can be seen as closely related to CPD, though in the past they may have not been linked so closely in our minds.

It is worth highlighting here that, like CPD, research and audit are an expected part of our professional practice, throughout all four levels of practice. In the new *Learning and Development Framework for Clinical Imaging and Oncology* (due for publication by the SoR in 2007 to replace the previous Curriculum Framework Document), the expectations on practitioners to undertake research is clear (see Table 1).

As an expected part of our practice then, it is also part of our remit for CPD, as research and audit become two of the many skills which need to be maintained and enhanced throughout our working lives.

If we look at the Professional Outcomes within **CPD Now**, research and audit could be used as evidence of CPD activity against several of those outcomes in a relevant context (Table 2). Clearly, you have to make a decision about what is your standard practice and what is CPD, and this will vary depending on your role and on the activity you have undertaken. Table 2 gives you some ideas for where you might record such activity, particularly if you are new to research and are still learning and developing the relevant skills.

As an aside, it is worth noting that, within CPD Now, you can also record your activity against your KSF outlines (this new function was due to go live from February 2007), thereby avoiding duplication of your record of reflection on your activity, giving even more added value to using **CPD Now**.

Relevant areas within KSF for consideration in relation to research and audit are suggested in Table 3.

It is clear, then, that there is considerable scope to include both research and audit as part of the content of your CPD to ensure that your skills are maintained and enhanced.

It is also clear that many of the individual activities within research and audit can be used as part of your CPD record (even if you are already research-active), as through undertaking them you gain new knowledge relevant to your practice. For example:

Table 1

Assistant practitioner to undertake surveys or audits relevant to own work. Occasional participation under supervision in research and development projects.
Practitioner to be regularly involved in research and audit, publishing and presenting findings.
Advanced practitioner, within the area of individual practice/expertise, to be responsible for co-ordinating and implementing research and development programmes or activities as a requirement of the job, publishing and presenting at interprofessional fora.
Consultant practitioner, within the area of individual practice/expertise, to be responsible for initiating, developing and overseeing cross-professional and/or cross-organisational research programmes and for wide dissemination of findings which may impact broadly.

Table 2

02 Knowledge base (adding to your knowledge base by researching those answers)
06 Manage knowledge/information (related to the recording of information you handle, patient confidentiality issues, as well as collecting, processing and analysing data)
07 High quality healthcare (audit could contribute to improving patient care)
08 Patient centred care and choice (learning more about the needs of patients or client groups and using audit to ensure that new procedures are delivered consistently and that patients' needs are being addressed)
09 Interprofessional/agency working (audit again could be useful for ensuring processes are effective)
12 Service design
19 Evidence to support practice (focuses on the use of evidence in practice or application of research findings)
20 Knowledge of skills in audit/research
21 Contribute to published research evidence
22 Further the profession

- Critical evaluation of literature
- Developing research questions
- Data collection
- Data analysis
- Data evaluation
- Writing up research
- Presenting research
- Working in a research team
- Leading a research team or project

In article two we will explore some of these

Table 3

Core Dimension 2: Personal and people development
You may have chosen to develop yourself through learning about research and audit or developing skills to be involved at some level in research or audit. Level 2 is about developing skills and knowledge.
Core Dimension 4: Service improvement
It is worth considering involvement with audit here. Across all four levels, improvement to services and looking at service provision is paramount.
Core Dimension 5: Quality
In some cases the recording of research and/or audit could be related to quality and at level 3 the improvement of quality may well be the result of implementing some research findings.
Dimension HWb7: Interventions and treatments and Dimension HWB8: Biomedical investigation and intervention
Levels 2 and 3 relate to monitoring treatments and evaluating interventions, which may well be part of an audit process.
Dimension IK2: Information collection and analysis
May be appropriate to record activity here.
Dimension G1: Learning and development
Level 4 talks about evaluating learning and this may be appropriate to some of you in the context of educational research undertaken.
Dimension G2: Development and innovation
Definitely a consideration when looking at new equipment or technology in your research.

aspects of research and audit and suggest ways you can use them as effective CPD.

Summary

The scope (and indeed need) for radiographers to become involved in research and audit is increasing. This article has reviewed the ways in which involvement in research and audit can be beneficial both to an individual's career in terms of the KSF and also in terms of CPD, in addition to the direct benefit of being research active. Research and audit are both important parts of service development that radiographers have the capability to be involved in, and learning the skills to be involved can be used as effective CPD.

The next article will cover guidance on undertaking research and audit as part of your CPD, as well as ideas about what you can do in your departments, even when you are starting out. We will also look at how research findings can be disseminated to ensure maximum potential benefit across the profession and how that dissemination can form part of an effective CPD record.

Finally we will explore how you can use **CPD Now** to record your activities, so that you can get started straight away.

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References for this article are at: www.sor.org/members/pubarchive/pub–search.htm

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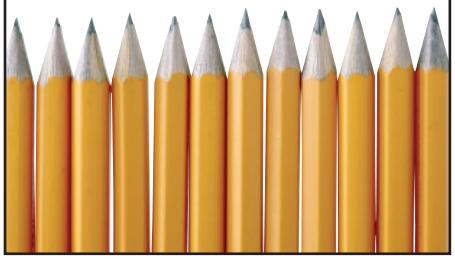

Test Yourself

Below are 10 questions for you to answer which you can then count towards your CPD. Please photocopy this page, fill in your answers and note down any other observations and put it in your CPD folder. The answers will be available online from March 1 at: www.sor.org/members/pubarchive/pub–search.htm

1. Which of the following is not widely held as true. Research is:
a. A rigorous and systematic process
b. Predominantly about generating new knowledge
c. About seeing if a new technique is implemented effectively
d. A way of answering a specific question or resolving a particular problem

2. Research is an expected part of which following roles in radiography?
a. Practitioner and above
b. Advanced and consultant practitioners
c. Those in academic or research posts
d. All four levels (assistant, practitioner, advanced and consultant practitioners)

3. Clinical audit is predominantly about:
a. Quality improvement
b. Testing theories in practice
c. Generating new knowledge
d. Comparing different techniques or treatments

4. At what level of practice would you be expected to be 'regularly involved in research and audit, publishing and presenting findings'?
a. Assistant practitioner
b. Practitioner
c. Advanced practitioner
d. Consultant practitioner

5. Which Professional Outcome in CPD Now is specifically about research and audit?
a. 3
b. 6
c. 12
d. 20

6. In which year was clinical audit reportedly introduced into the NHS?
a. 1963
b. 1973
c. 1983
d. 1993

7. Which Government White Paper reinforced the position of clinical audit?
a. 1997 The New NHS
b. 1999 Saving Lives: Our Healthier Nation
c. 2002, Delivering on the NSH Plan, new steps on investment, new steps on reform
d. 2004 Choosing Health, Making Healthier Choices easy

8. Read the article on http://www.ubht.nhs.uk/clinicalaudit/docs/HowTo/WhatisCA.pdf What other forms of 'survey' cannot be usually considered part of audit?
a. Monitoring of clinical outcomes
b. Patient surveys
c. An investigation to count the frequency of something
d. Mortality and morbidity reviews

9. In the SoR Research strategy (http://www.sor.org/members/pdf/strat_fiveyr.pdf) what percentage of radiographers are going to be research-active by 2010?
a. 1%
b. 3%
c. 5%
d. 10%

10. How much money does the SCoR award to radiographic research each year?
a. £10,000
b. £15,000
c. £20,000
d. £25,000