

BULLETIN

Supporting learning while working of health care professionals

Introduction

This *Bulletin* discusses the issues involved in supporting the learning of health care professionals in the United Kingdom. In particular, it focuses upon the challenges of how best to support the learning of newly qualified radiographers and physiotherapists working in hospitals. While formal training does have a role to play, perhaps of greater significance is the support offered by more experienced colleagues. Some of these colleagues may have some formal responsibility for the supervision and development of more junior staff, but others do not. The issue here therefore is whether all health care professionals, even those acting principally as practitioners, should be supported in how to offer effective support to the learning of others at work.

The Warwick Institute for Employment Research has recently completed a study into the extent, causes and implications of skill deficiencies in Health and Social Care (Brown *et al.*, 2000).¹ The following analysis draws heavily upon this study of the skill implications of changes in the patterns of work of *radiographers* and *physiotherapists* working in seven hospital departments. The organisational changes in hospitals and the National Health Service, changes to professional training and development, changing ideas about the nature of practice and philosophies of care, changing patterns of work and demand for services, the adoption of new technologies and new techniques have created a turbulent environment for practice for health care professionals working in hospitals.

Decisions about balancing the competing requirements for service delivery and how to support skill development most effectively have a number of dimensions. These include professional judgement about the most appropriate approach to care and practice; organisational issues around how to cope with the particular context in which health care is

provided; caseload management; and departmental management. This means that in any particular setting there is not a single model of best practice as to how health care professionals should act. Rather hospitals, and particularly hospital departments, have to make contextualised decisions about how best to optimise service delivery and skill development in the settings in which practice is grounded.

Changing Ideas about Professional Practice

Decisions about effective service delivery by people working in highly skilled occupations are bound up, either implicitly or explicitly, with particular models of professional practice. Hence lists of required skills or behaviours related to the tasks to be performed can be apparently never ending, but still not get to the heart of professional practice (Benner, 1982). It can be particularly difficult to map the full complexities of performance in practice. Most of our departments were acutely aware that newly qualified staff were 'less expert' in some of their judgements than more experienced staff. Those departments that regularly recruit newly qualified staff (because they do not get experienced applicants) needed to have in place mentoring, supervision or other support, so that the less experienced have opportunities to discuss and practise thinking about complex cases handled by their more experienced colleagues. This approach to seeking to tackle complexity through interpretation and a shared search for understanding gets to the heart of 'the discursive nature of professional practice' (Webb, 1996, p.111).

Such an approach does not involve copying the precise way others tackle problems, but rather it draws attention to three important features. First, complex professional duties can be performed in a variety of ways. Second, these duties can draw on different combinations of knowledge, skills, abilities and attitudes in effective performance. Third, this

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approach implies that there is scope for professional judgement, not least in the ability to balance competing demands and the pressures of time. This means that active reflection and review should not be confined to complex cases, but should also include the different ways practitioners seek to tackle their workload as a whole. By this means it should be possible to discuss and share ideas about the most effective ways to tackle a range of problems in practice.

The value of extended dialogue to reflective practice is now widely acknowledged, and without this departments could lose their sense of shared purpose, and just react as individual practitioners, without any impetus to improve the quality of practice. This extended dialogue underlines the social nature of learning and working and should enable both the socialisation of new staff and wider learning to take place. Additionally, the more departments become overloaded then the more important it is for colleagues to feel supported, and without that support retention of staff becomes much harder to achieve.

Ideas about professional competence and caring in health care are constantly evolving. Thus, for example, physiotherapists need technical skills and the ability to engage and motivate patients to take responsibility for their own rehabilitation. Current discussions about health care are intimately bound up in ideas about practice as it is, how it might or should be, and relations between occupational groups (Webb, 1996). This is most evident in current attempts to offer a more holistic approach to health care, and this has implications for intra-team training, if the goal of multi-disciplinary working is to be achieved. Throughout the health care system the intention is to move towards a more holistic, person-centred approach to care that 'promotes mutual respect, genuineness and joint partnership in the achievement of patient centred goals' (McAlear and Hamill, 1997, p.5).

Challenges Facing the Newly Qualified in Learning While Working in Hospitals

There are a wide range of issues, targets and goals that affect service delivery and individual performance in hospital radiology and physiotherapy. The challenges of learning while working for newly qualified radiographers and physiotherapists working in UK hospitals can be mapped out as follows:

- **Models of care**

Greater emphasis is being placed upon moves towards more patient-focused care; patient self-management; empowering patients; and different models of in-patient rehabilitation (e.g. linking physiotherapy and occupational therapy). Consequently consideration has to be given as to how best to support multi-disciplinary working within hospitals and partnership working with other services. Such shifts have implications for the mix of clinical and other skills that newly qualified health professionals will need to treat patients, and require highly developed inter-personal and communication skills.

- **Models of practice**

The call for greater use of evidence-based practice as a basis upon which to make clinical judgements requires greater attention to be given to an understanding of the nature of research and what constitutes clinical evidence (Gray, 1997). In this area newly qualified (graduate) staff sometimes had an advantage over some less qualified but more experienced colleagues because of the shift of emphasis in initial training towards understanding the rationale for evidence-based practice. Some departments found particular attention and support needed to be given to those practitioners who were less likely to be familiar with research. Newly qualified health professionals were also likely to be familiar with models of reflective practice. However, the model of the reflective practitioner requires time to be made available for professionals to reflect upon their experience, actions and thinking as a basis for continuing to develop their expertise. Newly qualified staff needed time to reflect with others on their practice at a time when all staff were often feeling stretched by demands on their time in practice.

- **Interaction between modes of cognition, thoughts and actions, and speed of response**

One characteristic of effective performance of experienced physiotherapists and radiographers is that, like other professionals, they have learned to make some decisions rapidly and intuitively, while others require much more deliberation, analysis and discussion (Eraut, 2000). Newly qualified practitioners have to learn to make these distinctions and this requires a readiness for experienced practitioners to discuss their interesting cases as well as those of the novice, if the novice is to learn to model appropriate patterns of thought. The lack of time for such discussions could mean that the novice takes longer to reach the stage where he or she can make such discriminating judgements.

- **Coping with an expanding knowledge base**

The amount of underpinning professional knowledge that individuals are expected to master has increased considerably. The move to graduate entry has helped here, but continuing professional development is required, particularly, as in radiography, where the introduction of new technology and innovative techniques can transform practice. Initial training in the operation of new equipment for the first practitioners to use the equipment is usually quite good, but the most effective departments have procedures in place to ensure that such knowledge, and developing protocols learned from experience of the equipment in use, are cascaded to all relevant staff.

- **Participation in networks concerned with dissemination of good practice**

Models of clinical governance require particular emphasis to be given to dissemination of good practice and a commitment to continuing improvement (Department of Health, 1997). Professional networks, regional collaboration and programmes of continuing professional development are all important in the dissemination of good practice, but more informal networks also played a significant role in spreading good practice. At departmental level it is particularly important to ensure that newly qualified practitioners are tied into such networks.

- **Increasing demand for services**

Rapidly increasing demand for some services required active management at departmental level. The consequences of the increasing demand for services for newly qualified staff were both direct and indirect. The direct consequences were reflected in their own increased workload and the indirect consequences came from less time available for some senior staff to devote to training because of the increased time they spent on departmental management responsibilities.

- **Paying attention to performance indicators**

All staff seemed well aware of the need to pay attention to any particular performance targets outlined in Trust and/or departmental plans for service delivery (patient throughput; waiting lists; waiting times and so on). All departments actively reviewed their performance against such targets, and particularly where targets were based upon per capita funding, newly qualified staff could feel under pressure to reach experienced worker standards as quickly as possible.

- **Individual caseload management**

Caseload management and time management have become much more important at the individual level and newly qualified staff in particular may require support to do this effectively.

- **Individual career development and departmental recruitment practices**

These may mean that there are large numbers of relatively inexperienced practitioners in some services. Particularly in physiotherapy, staff in some departments often wished to stay for a limited period of time, due to individual circumstances or because they were looking to move into other areas of practice after gaining some initial experience. In such circumstances skill utilisation and development strategies of some departments were tailored to the likelihood of having continuing turnover of relatively inexperienced professional staff.

- **Learning while working**

Both professions have a tradition of job rotation for newly qualified staff, but this process requires active management in terms of mentoring, supervision, organised reflection and so on. The extent to which there were opportunities for continuing learning and development could also be a major factor in the recruitment of new staff. Learning while working after completion of initial training was a major factor in health care professionals negotiating the considerable challenges facing them early in their working career. The challenge facing hospital departments therefore was how could they support the learning while working of newly qualified radiographers and physiotherapists.

- **Training and reflective learning being squeezed because of more immediate demands**

All departments had to live with examples of training being squeezed because of more immediate pressures, but the more effective departments did not allow this to become standard practice, rather after cancellations in one period they moved training up their list of priorities for a subsequent period. Also professional emphasis is given to deliberative or self-reflective learning through systematic reflection or review, but the pressures of practice, such as time constraints and the

number of patients, can erode opportunities for this. This could be a particular problem for newly trained practitioners who were often found to be lacking in the 'coping skills' needed in the face of such pressures as time management and being able to prioritise caseloads.

So learning while working is an important theme within successful radiology and physiotherapy departments and it is worthwhile looking at this issue in more detail.

Learning While Working of Newly Qualified Hospital Radiographers and Physiotherapists: Key examples

Considerable learning of newly qualified radiographers and physiotherapists comes from their engagement with work which can be very challenging as they move towards becoming experienced practitioners in their own right. So it may be useful to outline some of the ways these newly qualified practitioners learned while working.

- **Formal training and continuing professional development**

Professional standards apply for health care professionals, and these govern significant aspects of the training, practice and professional development of radiographers and physiotherapists, including minimum levels of Continuing Professional Development (CPD). Hospitals and other health care organisations are therefore obliged to provide a minimum amount of training and support for the CPD of staff in the professions allied to medicine. This helps ensure that professional staff are technically well qualified. Besides a general commitment to CPD, there is also an expectation that staff will be trained in the use of new equipment, with technical aspects of, for example, radiography training often being given by the equipment manufacturers. There is access to formal training in for new treatments and technologies as required throughout their careers for radiographers and physiotherapists.

Formal CPD could include learning through projects, reviews and audits of competence and skill development, giving presentations, one-to-one supervision, and peer review, as well as through attendance at more formal courses. Short courses within departments were available and staff were encouraged to undertake postgraduate qualifications. In most cases there was greater demand to participate in further training such as Masters courses than there was funding available. Generally staff undertook postgraduate qualifications on a part-time basis and funded at least half of the costs themselves. Departments where staff had attended specialist courses or completed Masters programmes were perceived as offering more opportunities and potentially a higher level of in-house training. This could then be an important factor in external recruitment.

- **Non-formal learning at work**

It is worthwhile focusing upon non-formal methods of learning while working, as formal education and training provide only a small part of what is learned at work by professional staff. This is particularly important as even where hospitals had the capacity to provide formal training, there was often reluctance to release staff when departments

were under-strength and working at full stretch and this increased the de facto reliance upon learning through working. This could be effective, but only if the requisite support was available for on-the-job learning.

- **Learning through the challenge of work itself**

The challenge of work itself can lead to significant learning, particularly for the newly qualified. For example, the work of radiographers includes using a range and variety of equipment, solving problems arising under pressures of time and limited space, managing patients under varying circumstances and working as part of a team. The precise skills needs in radiography also depend partly on the equipment used and the service provided (for example, whether the Trust provided therapeutic as well as diagnostic radiography). Technical and professional knowledge, interpersonal skills and sensitivity are required. Radiographers are at the interface between patient and clinician, and need well-developed inter-personal skills to deal with internal and external customers. The increased sensitivity to the need to recognise individual difference in patients means that skills of patient management have increasingly come to the fore, as radiographers have to deal with patients with very different levels of tolerance and anxiety under varying medical circumstances. All those who come into contact with patients are also now expected to explain or reassure, as appropriate.

Additionally, the work of radiographers is becoming more complex, with the technical and IT skill demands increasing and the underpinning knowledge base also expanding. The range of tasks radiographers have to perform has increased too, including the need to mark up X rays with issues for doctors to consider. Skills associated with intra-hospital team working are becoming more important and this can be a particularly sensitive issue for radiographers, as this could be seen to present a challenge to existing hierarchies, as it requires doctors and consultants to acknowledge the expertise of other staff.

This does represent progress, however, from the situation Eraut *et al.* (1998) describe where the sensitivities were such that radiographers 'put red dots on pictures for casualty officers where they had noticed something broken, thus contributing to diagnoses by often relatively inexperienced doctors without trespassing on their traditional territory' (p.44). While newly qualified professionals learn from more experienced colleagues, other professionals may learn from each other too, and the educative function may sometimes be explicit as when radiography staff 'educate' each other in the most effective way to use new equipment. The earlier example of working with doctors highlights the way newly qualified staff have to learn to work with other staff too.

- **Job rotation**

The work of hospital physiotherapists can be similarly challenging as within the major Health Trusts they may practise in a range of environments. These include outpatient services, respiratory care, orthopaedics, paediatrics, health care of the elderly, neurology, primary and community care, women's health, mental health and so on. The work of physiotherapists has both clinical and psycho-social aspects, including prevention of disease and

injury, diagnosis, assessment and treatment of patients and management of rehabilitation. As with radiographers, one response to the variety of work is to use job rotation to help the newly qualified to develop the ability to apply their skills in a range of contexts. Within physiotherapy departments two-year rotations for junior staff were the norm and any additional support was normally provided in-house during this period. There is a strong tradition of learning through working within both radiography and physiotherapy with the expectation that you do not become fully experienced until several years after your formal qualification.

- **Intensive on-the-job training**

One line of argument was that the move to graduate entry had intensified the requirement for further learning while working after formal qualification. The issue raised by some managers was that new entrants, particularly to physiotherapy, may have insufficient experience of exercising the practical skills they need to do the work, resulting in the need for very intensive on-the-job training once they were qualified. In the context of a pressurised workplace environment, however, such training does not always coalesce with the 'reflective practice' approach instilled within degree-level training.

Skills deficiencies of recently qualified graduates may relate to their relative lack of knowledge of the particular contexts in which they are working. In particular, they may need support for learning to implement practical principles in particular contexts, as they may lack sufficient understanding of how knowledge is used in practice. It may be that graduates are less proficient at some practical tasks, simply because they have had much less practice than those trained under the old system. The exposure to a range of experience over time may be particularly significant in the build-up of implicit or tacit knowledge rather than explicit knowledge. The professions as a whole are of course aware of this in the sense that they acknowledge that new graduates require additional training and that is one reason for the widespread use of job rotation in the first two years following graduation. Experienced practitioners, however, may feel that they are increasingly stretched by other duties to give as much time to supervision and support as they should in more ideal circumstances.

- **Learning as a result of changes in the organisation of work**

While exposure to a range of work for the newly qualified could come through job rotation it could also occur due to changes in the organisation of work. One example of this came from a radiology department where moves to extend the opening hours of services led to a pattern of work organisation that required a single member of staff to take responsibility across the specialism as a whole. The need to fulfil on-call duties meant that staff needed to be able to cover the full range of possible duties, including for example emergency respiratory physiotherapy, as they needed basic expertise across a wide range of tasks. Patterns of work organisation that involved increased multi-disciplinary work and team working could also lead to challenges to established organisational cultures and (hierarchical) ways of working, and present new challenges to new and existing staff alike.

The challenges for less experienced radiographers of displaying a broad range of expertise when working alone when on-call could only be satisfactorily addressed with more comprehensive training and support, but it was difficult for senior staff to find sufficient time to provide the necessary degree of support. This example also serves to emphasise the extent to which working alone can impose pressures on less experienced staff who are used to being able to discuss any problems with colleagues.

- **Learning to improve intra-team communication**

In some cases organisation-wide concerns could impact upon skill development of newly qualified staff at departmental level, as where a hospital gave particular attention to improving intra-team communication. The concern with intra-team communication was considered vital, because although radiographers were being given greater responsibilities for interpretation and marking up X-rays, consultants did not always recognise their expertise. Also radiographers had to work with others to establish the most effective ways of presenting information (especially as there is variation in the local preferences for how information is presented). Where this type of training was successful and all parties had confidence in the expertise of others, genuinely worked as part of a team and appreciated the different roles and challenges facing other members of the team, then a higher quality service was delivered to patients.

- **Learning as a consequence of implementing changing models of care**

At the professional level, decisions to opt for particular models of care to underpin practice could affect skill utilisation and development profoundly. For example, if a physiotherapy department encourages an ‘empowering’ approach to care, where the individual patient takes increasing responsibility for her or his own care, then this can be very time intensive in the early stages, even if it eventually requires fewer interventions. This is because the ‘empowering’ approach relies upon the establishment of trust, with a focus on support and development, taking time, and listening to and dealing with problems, as the individual takes on greater responsibility.

The ‘control’ approach, where the practitioner is much more directive, focuses upon what the client has to do, but with ‘ownership’ of the process resting with the practitioner, may be used as a means to cope with large numbers of patients. Tensions may arise between these two approaches, and the newly qualified practitioner may require support in this respect, especially as the controlling approach may initially be easier to accomplish.

- **Learning from progressive exposure to more complex clinical cases**

Learning while working is important in both professions and requires practitioners to be given exposure to complex clinical cases and for this learning to be supported. Eraut *et al.* (1998) point to how through exposure to a variety of cases and contexts the newly qualified learn through observation and listening, as this is a form of ‘legitimate peripheral participation’ as they gradually become more experienced.

- **Learning from others – mentoring**

Eraut *et al.* (1998) also point to how organised learning support can come through mentoring which may be organised more or less formally, and with the mentor just offering support on a serendipitous basis or taking great pains. An example of the latter could be seen in the case of a more experienced radiographer offering support to a less experienced colleague: ‘this woman goes out of her way to show her relevant things that come up when she’s not there, shows her lab reports on mammograms she has done, etc, thus building up her expertise more quickly’ (p.40).

- **Learning through cascading experience**

Increased multi-disciplinary work and teamworking placed communication demands on staff in addition to those required for dealing with patients. For example, in one radiography department, where a new MRI scanner had been recently introduced, there was a need for radiography staff to ‘educate’ other professionals in the potential dangers of using the equipment incorrectly and the need to adhere to protocols. This sometimes created problems if the other professional was in a superior position and the situation required assertive handling by the junior, as this could present a challenge to established organisational cultures.

- **Learning from others from outside the hospital**

For those working in community physiotherapy outreach work and relations with GP practices will become more important in delivering a more decentralised and comprehensive service. The ability to communicate effectively across services and disciplines has therefore become a core competence and inter-personal skills when dealing with the public, for education and prevention as well as treatment, have become even more important for those working in this area.

- **Learning through building personal networks**

Although learning through personal networks is important for less and more experienced health professionals alike (Eraut *et al.*, 1998), the former also have to learn who holds different types of knowledge, how to access it and so on. One key link was often colleagues with whom the individual had trained and who were now working in different hospitals. Such contacts could be particularly important for the newly qualified who did not always initially at least wish to share some of their doubts about aspects of their own work with their new colleagues. Personal networks could also lead to access to required knowledge through chains of contacts.

- **Self-directed learning**

Eraut *et al.* (1998) highlight the importance of self-directed learning, where the newly qualified play an active role in finding out on their own initiative what they need to know, including learning through reading papers, journal articles and case histories.

Conclusions

The support for the learning of newly qualified radiographers and physiotherapists at work needs to be placed in the broader context of work in their departments (or across departments) as a whole. At a departmental level

there were a number of key factors that had enabled departments to support the learning of newly qualified staff. These were:

- proactive rather than reactive management
- recognition of the benefits of investing in training
- willingness of staff to work as part of a team and appreciate the different roles and challenges confronting other team members
- recognition of the centrality of learning through work for newly qualified staff and paying particular attention to the allocation of work and supporting these individuals
- encouragement of regular staff discussions
- formalisation of mentoring relationships
- where formal reviews of practice were held
- where the existence of informal relationships facilitated work-related discussions away from the department.

Traditionally the focus of the development of professional competence in the health sector has been upon skills, methods and techniques. As a consequence the organisational (and administrative) competencies necessary to successful performance in the organisation and the social-communicative competencies relating to the department or team's practical environment may receive comparatively little attention either in formal training or informally during learning while working.

However, both radiographers and physiotherapists have to learn to deal with complexity, contradictions and uncertainty, and this means that the organisational and social-communicative aspects of professional performance are significant, with a consequent emphasis upon planning, acceptance of responsibility, independent action and social skills. Helping, clinical diagnosis, teaching/coaching and monitoring remain at the heart of professional expertise, but effective management of a caseload as a whole, as well as of individual cases, has become more important and these skills too are in need of development and support.

Formal training does have a role to play in the development of some of these skills, but given the breadth of skill development required, perhaps of greater significance is the need to make the most of opportunities for learning while working. This type of learning requires a range of support, including that offered by more experienced colleagues. Some of these colleagues may have some formal responsibility for the supervision and development of more junior staff, but others do not. Given the ubiquitous nature of learning while working it is perhaps time that all health care professionals, even those acting principally as practitioners, should learn how to offer effective support to help the learning of others at work.

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Other Recent Publications

- Brown, A. (2001). 'Reflections on the processes of becoming skilled in England, Germany and the Netherlands.' *Vocational Identity, Flexibility and Mobility in the European Labour Market*. Ed. G. Laske. ITB Working Paper 27. Bremen: ITB, University of Bremen, 165-196.
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