An evaluation by doctors in training of a pilot programme of physician assistants

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New grades of health-care workers have been introduced to support trainee doctors and facilitate the implementation of the New Deal and the European Working Time Directive. This study surveyed the views of junior doctors regarding their experience of one such new post, called a physician assistant, and found trainees generally positive, welcoming this innovation.

BACKGROUND

The junior doctors' New Deal has significantly reduced the number of hours that are worked by doctors in training. This reduction is set to continue with the implementation of the European Working Time Directive (EWTD) in August 2004. By the end of 2009 it is expected that no junior doctor should work more than 48 hours a week. Furthermore, most doctors will also be limited to working a maximum of 13 hours a day.

The reduction in hours, coupled with a change in working patterns, is likely to increase the intensity of work experienced by junior doctors and may also limit training opportunities. One solution would be to substantially increase the size of the medical workforce to meet this demand, but there is neither the available workforce nor the financial resources to do so in the short term. Innovative solutions are required that will cover the gap in the clinical workforce and maximize valuable training opportunities at the same time as minimizing non-educational repetitive and time-consuming tasks.

One suggested approach is to create a new clinical support worker role designed to ease the burden of junior doctor workload while also contributing to the strength of the clinical team. Such doctors' assistant posts have now appeared in several NHS hospitals. The titles given to them vary between organizations and indeed countries but within the UK they are likely to be graded as follows:

Clinical assistant practitioners

These are broadly comparable to the US model of a paramedic with the training to assess patients and initiate limited management.

Clinical technicians

These staff are trained in a limited number of clinical procedures, e.g. cannulation, and are similar to those discussed in this paper.

There may be additional roles but these are not yet fully defined.

To illustrate the variation in these roles, however, the posts created at Whipps Cross Hospital were designed to replace a mixture of clerical duties and to perform clinical skills and administrative tasks. Pre-dating the current discussion on semantics they were named physician assistants.

Eight such posts were created in June 2002 in order to reduce both the intensity of work and number of hours worked by doctors in training. Each post was different and designed to meet the perceived needs of the doctors and specialty to which they were allocated. This study aimed to better understand the views of medical trainees regarding the impact that these physician assistants had made on their working lives.

PHYSICIAN ASSISTANT POSTS

The physician assistants were to undertake a number of routine clinical and administrative duties normally performed by a junior doctor but that did not require specialist clinical skills or knowledge. A list of the duties so identified is provided in *Table 1*. This list was devised from the London Deanery list of 'inappropriate' duties used in inspection visits and from those duties identified by trainees as being onerous, time consuming and of little educational value.

No previous clinical experience was required for recruits to these new positions. Most had some health-care background but not all. In-house modular training programmes were provided to equip each physician assistant with the skills thought to be important in their specialty area. Physician assistants were made responsible to ward managers as they were themselves specialty-based personnel with person management experience. Physician assistants were accountable to a nominated clinician and reported daily to the junior doctors in their specialist area.

METHODS

The eight physician assistants appointed were distributed to specialties as follows: one each to haematology and urology, two to medicine and three to orthopaedics (where, owing to the absence of house officers, daily work intensity for senior house officers (SHOs) was particularly high). The eighth physician assistant worked across specialties supporting doctors

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with predominantly clinical procedural tasks such as insertion of intravenous (IV) cannulae and IV line management.

A semi-structured questionnaire was used to interview all those junior doctors who worked in areas supported by physician assistants. Doctors were bleeped and if convenient were then interviewed over the telephone using a proforma questionnaire but allowing for free comments from respondents where they felt appropriate. If it was not convenient to interview at that moment an alternative time was agreed.

RESULTS

Interviews with doctors in training

In total 38 doctors were interviewed: seven specialist registrars (SpRs), 23 SHOs and eight preregistration house officers (PRHOs). Twenty four were currently working with physician assistants while 14 were not, but all had had some contact or assistance from the physician assistant working across specialties.

General awareness of physician assistants and their role was mixed. Thirty four doctors stated that they were aware of physician assistants but many reported having a poor understanding of their roles and competencies. To an extent this also reflected semantics as those doctors who did not recognize the physician assistant's role later stated that the roving physician assistants had helped them with cannulation and phlebotomy although at the time they had not understood that their job title was physician assistant.

The most time-saving tasks performed by physician assistants were given in order of importance by doctors in training as:

- Phlebotomy
- IV cannulation
- Result chasing
- Test organization
- General organization
- General administration
- Patient preadmission assessment.

When asked what additional duties physician assistants could perform that would save most additional time trainees replied:

- Bladder catheterization
- Arterial blood gas sampling.

TABLE 1.
Skills identified as being suitable for a physician assistant to perform

Clerical and other skills	Porter specimens
	Obtain case notes from file
	Obtain radiographs from filing
	Assist request from completion
	File results
	Record investigation results in casenotes
	Obtain test results from the IT system
	Assist in preadmission clinics
	Answer bleeps and take messages
	Answer and make phone calls
Clinical skills	Phlebotomy
	Cannulation
	Record vital signs
	Reassure patients before procedures
	Perform electrocardiographs
	Request and arrange certain investigations
	Attend and assist on ward rounds

When this question was specifically addressed at tasks performed for night cover duties the following items were listed:

- Taking blood cultures
- Old case note retrieval
- Rewriting prescription charts
- Writing IV fluid charts
- Patient tracking, i.e. bed to bed movements from accident and emergency
- Writing blood request forms for the following day
- Taking calls from wards to allow the doctor to complete a task already started.

GOVERNANCE

When asked if they were satisfied with the current service provided by physician assistants the 23 who responded stated very satisfied, good or acceptable in 87% of cases and no respondents stated that the service was unacceptable.

Exploring this issue further trainees were asked if they had any concerns about the use of physician assistants to support clinicians. Sixteen (42%) had no concerns, 12 (32%) were worried that trainee doctors might become deskilled, two (5%) expressed concerns over the competency of physician assistants, and a further two (5%) about their clarity of role, while six other comments were of various unrelated issues.

Doctors were then asked who they thought should supervise the physician assistants. Ten doctors suggested an SHO supervisor. Others stated that a PRHO was not sufficiently senior or experienced to take on this role and that the SpR may be too busy. There was a general feeling that nurse managers were inappropriate supervisors and there was a concern that the physician assistant role would be subsumed into that of nursing if such an arrangement were made. There was an additional recognition by some trainees that there was an important role for human resources (HR) in the training and support of physician assistants and that doctors in training may themselves not have the skills to perform these HR-type duties.

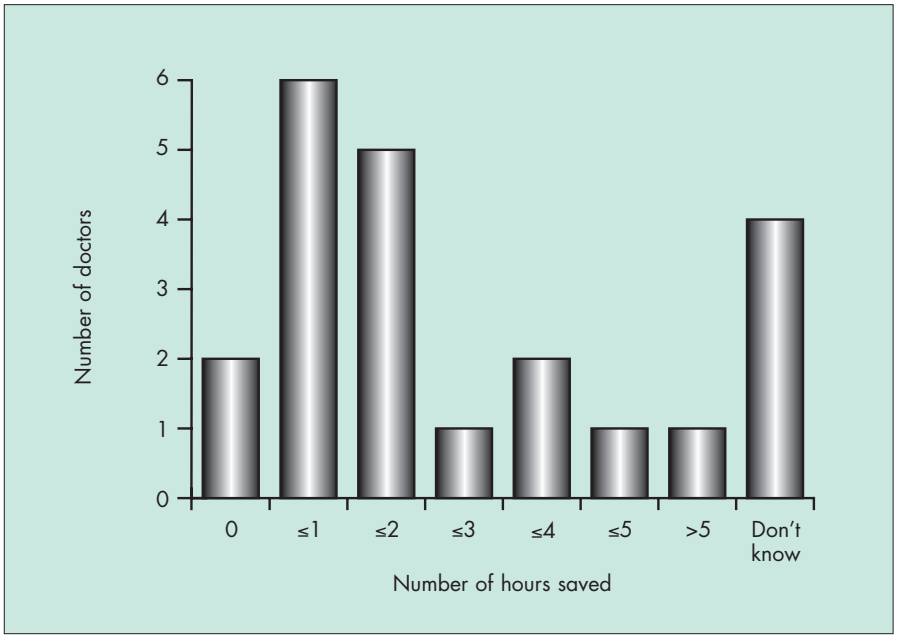

Figure 1. Trainee estimated number of personal working hours saved per week by physician assistant interventions.

NEW DEAL AND EWTD COMPLIANCE

Doctors were asked if the physician assistants would help in achieving compliance with New Deal targets. Twenty four doctors working with physician assistants were interviewed and 13 (54%) thought they would help while 10 (44%) stated they would not and one did not provide a response.

The immediate availability of a physician assistant was raised as an issue. A number of respondents reported that bleeping a physician assistant to ask them to do a task was frequently more time consuming than doing the job personally. In contrast if a physician assistant was physically present then they were perceived to save significant time.

Overall 91% (33/36) of the doctors interviewed that responded to this question stated that physician assistants saved them time. All PRHOs, 92% of SHOs and 66% of SpRs felt that physician assistants had saved them time. SpRs commented, however, that they did not feel physician assistants saved them a lot of time but they benefited other grades more. Defining how much time per week was saved by physician assistants was more difficult but estimates for this from the trainees themselves are given in *Figure 1*.

DISCUSSION

This survey of the views of medical trainees on the role of the physician assistant and their impact on trainees' working lives is the first such report in the literature. Overall the impression is a favourable one, albeit with some reservations.

The concept of the physician assistant is not a new one and is well established overseas, particularly in the United States. A number of research papers have described the role of the physician assistant (Davis and Powe, 2002; Larsson and Zulkowski, 2002) and it is quite clear that in the US this role carries significantly more responsibility and requires more lengthy training than the currently practicing UK physician assistant (Cox, 2001).

It is important to emphasize again that the physician assistant described in this paper is a peculiarly locally adapted support worker designed to meet the needs of doctors working at Whipps Cross and should not be confused with the US style health-care staff of the same name. Nevertheless it is possible that some parallels could be drawn from the US experience that may help inform us how non-medical practitioners are perceived by others.

While there are a number of articles describing how the physician assistants feel about their own roles (Perry, 1978; Mangelsdorff, 1983; Bell et al, 2002) there is very little work focusing on how practicing doctors perceive physician assistants (Stuart and Blair, 1974; Grzybicki and Vrbin, 2003). Within the UK literature we have been unable to identify any study that describes the attitudes of doctors in training to the advent of the medical assistant in whatever format or guise they may take. As these are the doctors most likely to benefit from and work with physician assistants we feel this initial survey to be timely and relevant to the introduction of further posts.

One reason for this difference between the US and UK models of the physician assistant may be the differing driving forces for the introduction of this new health-care role. In the US a shortage of doctors and nurses in rural areas resulted in the development of a practitioner with the necessary skills and knowledge to replace doctors and nurses (Miller et al, 1998).

Within the UK the emphasis is more on relieving trainees of the 'non-medical' clerical and repetitive non-educational tasks, in order to free doctors to concentrate on more relevant tasks. In this context medical trainees in this survey readily identify onerous tasks that contribute to their intensity of work and long hours (*Table 1*) and which can be performed by non-medically qualified health-care staff. These tasks are predictably a mixture of minor clinical procedures and more clerical-type duties. It is this combination that requires the introduction of a new role that has both the competencies and flexibility to take on such a range of tasks, the individual components of which can be performed without the lengthy and expensive training of a doctor.

It is also of interest that trainees identify a separate although related list of duties that are required for out-

of-hours working. A physician assistant must either have the flexible training that equips them for all these roles or this grade of staff must come in different varieties, each trained in greater depth and in a narrower range of competencies.

In terms of reducing working hours at first glance the estimates given are disappointing with about 2 hours per week saved on average. Nevertheless there are a number of reasons to be more optimistic about their future potential in this area. First the self-assessed hours saved is likely to be erroneous and a more detailed objective study will be required once the physician assistants are more established. Second it was evident from the survey that many doctors were unsure of the roles and competencies of the physician assistants and their real potential could not have been realized at this early stage in their deployment.

Progressive training of physician assistants to equip them with the skills identified by trainees as those they need most assistance with should further reduce the hours of work and work intensity. Careful planning of physician assistants' working patterns should also improve matters. By targeting busy periods as well as the beginning and end of shifts should allow junior doctors to limit the number of hours they work.

The junior doctors voiced a number of concerns about the physician assistant role that do need to be addressed. Some felt junior doctors may become deskilled if physician assistants were allowed to perform most of the minor clinical procedures. This can become a real issue for doctors who are still expected to be the practical skills 'expert', for example when the nurse practitioner or physician assistant is unable to cannulate or venesect a patient, or when a junior doctor must perform these skills in emergency situations. At Whipps Cross this concern is being addressed by the introduction of a clinical skills facilitator. This role will facilitate the delivery of a programme of supervised clinical skills training for junior doctors to ensure that basic clinical skills are maintained, and that their portfolio of skills is expanded. In essence the reduction in repetition must be compensated for by better quality training.

Most junior doctors questioned had strong views regarding the supervision of physician assistants. Most felt that the physician assistants should be managed directly by the junior doctors themselves, and voiced concerns that if managed by nursing staff, the physician assistants would become subsumed by this group. The need to identify with a team and a particular group of doctors as opposed to nurses was strongly advocated by trainees.

However, the ability of a junior doctor to manage a physician assistant must be questioned. Such management includes the allocation and recording of leave, pastoral support as well as long-term professional development. It is unlikely that a junior doctor could, or would want to provide this level of management. As a result, comprehensive management is likely to come from a combination of medical, nursing and HR sources, with the junior medical staff allocating operational tasks on a daily or weekly basis.

CONCLUSION

Physician assistants are broadly seen as a positive innovation by junior doctors. Their roles need to be further defined and close identification with a team of doctors will be key to their continued success. Managerial targeting of activities towards those that junior doctors identified as causing excessive workloads should enable further reductions in both intensity and duration of working that will be one important factor in maintaining compliance with the New Deal and achieving compliance with the EWTD. **HM**

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Bell RB, Davison M, Sefik D (2002) A first survey. Measuring burnout in emergency medicine physician assistants. *J Am Acad Phys Ass* **15:** 40–2

Cox CL (2001) Advanced nurse practitioners and physician assistants: what is the difference? Comparing the USA and UK. *Hosp Med* **62:** 169–71

Davis A, Powe ML (2002) Physician assistants: scope of practice, regulation and reimbursement. *J Med Pract Manage* **18:** 81–5

Grzybicki DM, Vrbin CM (2003) Pathology residents attitudes and opinions about pathologist's assistants. *Arch Path Lab Med* **127:** 666–72

Larsson LS, Zulkowski K (2002) Utilization and scope of practice of nurse practitioners and physician assistants in Montana. *J Am Acad Nurse Practit* **14:** 185–90

Mangelsdorff AD (1983) Army physician's assistants' attitudes expectations and satisfaction. *Psych* **20:** 1–8

Miller W, Riehl E, Napier M, Barber K, Dabideen H (1998) Use of physician assistants as surgery/trauma house staff at an American College of Surgeons-verified Level II trauma center. *J Trauma-Inj Inf Crit Care* **44:** 372–6

Perry HB (1978) The job satisfaction of physician assistants: a causal analysis. *Soc Sci Med* **12:** 377–85

Stuart RB, Blair JH (1974) Army physicians' attitudes about physicians' assistants. *Mil Med* **141:** 470–2

KEY POINTS

- Clarity of name and role of the physician assistant is important.
- Trainees identified a number of onerous tasks that could be done by physician assistants.
- Tasks at night differed to some extent from those in the day.
- Most trainees thought that physician assistants could improve their European Working Time Directive compliance.
- Some trainees were concerned that they may lose some practical skills.