Importance of components of postgraduate education in obstetrics and gynaecology: surveys of trainees and trainers

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Postgraduate medical education has many elements. Some are long-established while others such as formal teaching programmes and computer-aided learning are relatively new. The opinions of trainees and trainers differ as to which elements have the most educational value. Information technology is not highly rated by either group.

INTRODUCTION

Postgraduate medical education for doctors in training contains many elements other than clinical experience on the wards and in clinics and operating theatres. The introduction of structured training brought an increased emphasis on non-service based educational activities. The educational rights and responsibilities of doctors in training are now formally recognized (Department of Health, 1998). With the development of new technologies over recent years, and the increased emphasis on educational programmes, accepted non-clinical components of postgraduate education such as reading medical journals and textbooks and attending courses may now be less important than previously.

Following the introduction of structured training into obstetrics and gynaecology in 1996, provision of formal teaching programmes in protected time for trainees is now almost universal (Myerson et al, 2000). There has been little information to date about the real educational value of these programmes.

Formal teaching programmes require planning and organization, ideally by someone with training in teaching methods. If these requirements cannot be met in an individual hospital, the teaching programmes may be less effective. More traditional elements of postgraduate education generally do not require such degrees of special provision and will also be better established within the hospital culture.

The period since the introduction of structured training has also seen a rapid expansion in all aspects of computer-assisted learning (CAL) related to medical education. However, although the potential value of innovations such as information technology (IT) and CAL packages has been demonstrated in many settings (Halloran, 1995; Lee, 1996; Smith et al, 1996; Hamilton et al, 1999), the educational role of IT within postgraduate medical education is still uncertain.

This paper discusses surveys done among trainees in obstetrics and gynaecology and among Royal College of Obstetricians and Gynaecologists (RCOG) district tutors, to investigate the protected teaching provided for the trainees. The questionnaires included an element, based on a questionnaire used by Kerr et al (1996). This element was modified to gauge how valuable IT and formal teaching programmes are perceived to be and how they compare with more established educational activities. Identifying the most valued constituents of postgraduate education should be helpful in the design of effective training programmes.

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METHODS

Two separate questionnaires were designed and pilot studies were done. The finalized versions of both questionnaires were distributed by post and two follow-up postings were sent to non-respondents. One questionnaire was sent to 255 district tutors of the RCOG. Only district tutors who had been involved in the preparation of the questionnaire (n=4) were excluded from the study. The other questionnaire was sent to a random stratified sample of 300 trainees in obstetrics and gynaecology throughout the UK.

The content of the two questionnaires differed slightly in that each contained elements specific to the particular group of recipients. However, the structure and style of the questionnaires were identical, as were the large majority of the questions. The elements discussed in this paper were identically worded and were located at the same point in both questionnaires.

Respondents were asked to rank eight educational activities in order of their educational value for trainees in obstetrics and gynaecology. The most valuable activity scored one point down to eight points for the one judged to be least valuable. All completed answers were used to calculate a mean score for each of the eight elements. Results from the two questionnaires were analysed separately and compared. A rank order of educational value could then be produced. The mean scores indicate the worth of each component relative to the others included in the survey.

RESULTS

The response rate for the survey of district tutors was 81% (206 out of 255). The response rates from the 23 different

national regions varied with the lowest rate being 64% and the highest 100%.

The trainees survey had a response rate of 58% (174 out of 300). Responses were received from trainees in all 23 UK deaneries with the greatest numbers of responses coming from the largest regions.

Table 1 shows the eight educational activities that were included on the questionnaire ranked in order of their educational value as perceived by the two groups. The table also shows the calculated mean scores for each activity. The mean score is not an absolute measure of educational utility but a test of relative value allowing a comparison of the eight elements.

DISCUSSION

The response rate to the district tutors' survey was very good. The response from the trainees was less satisfying but in keeping with other studies (RCOG National Trainees Committee, 1997).

The results from the two surveys show some interesting differences of opinion between trainees and trainers. Trainees designate attending courses as the most valuable of the forms of postgraduate medical education. District tutors give this a much lower score and ranking. The reason for this difference is uncertain, but perhaps the tutors feel that the content of most courses that trainees wish to attend is either non-essential or can be covered 'in house'.

The tutors themselves place the most value on clinical meetings. Although the trainees do view these as having some worth, they do not rate them nearly as highly. Clinical meetings have a wider remit than purely postgraduate medical education and may have a benefit for the district tutors themselves, leading them to accord greater value to such meetings. This may also be true for clinical audit, which is least valued of all eight activities by the juniors but somewhat better regarded by the senior doctors.

Another difference between the results from the two groups is the greater regard that the juniors have for medical journals over textbooks. The district tutors marginally take the opposite view. The continuing importance of the traditional medical textbook is often questioned (Kassirer, 1992; Weatherall et al, 1995; Myerson et al, 2000). Interestingly it is the trainees who prefer medical journals which, although providing up to date information and debate, do not offer the comprehensive coverage of core knowledge provided by textbooks which trainees might be expected to favour.

Despite the differences discussed above, there is a consensus over certain issues, including the newer elements of postgraduate education, formal teaching programmes and IT. Formal teaching programmes are not entirely new, but it is only since the Calman reforms that they have become a central feature of training in almost all units (Myerson et al, 1998). In some regions, such programmes are innovative and highly organized (Kevelighan et al, 1998). In other regions, however, the teaching is much more basic. However, despite the limitations that may exist in individual units, trainees and trainers nationally consider such programmes as a very valuable addition to the spectrum of postgraduate education.

IT has apparently not had the same impact on postgraduate medical education as protected teaching programmes. The poor standing of IT is a particular feature of the results. Several factors may contribute to this. Computer provision and quality of hardware is poor in some units (Draycott et al, 1999). However, this is not the case in all hospitals and many doctors have computers at home (Kerr et al, 1996). Therefore lack of suitable hardware cannot be the sole reason for the poor showing of IT.

Equally, the IT skills of doctors will not be uniformly good (Draycott et al, 1999) but doctors in specialist training grades can and do use the Internet for education (Church et al, 1999). So, while poor computer skills may limit the value of IT for some trainees, there is evidence that the majority are sufficiently computer literate to access CAL.

A key factor affecting the value of IT for postgraduate medical education will be the quality of the source material. There is a wide spectrum of information available on the Internet such as the Cochrane Library, Medline and websites from a vast number of medical institutions and organizations. Many leading journals are available on line. Additionally the RCOG was quick to recognize the potential of IT for postgraduate and continuing medical education and developed DIALOG, a very highly regarded educational package (Pannikkar, 1998).

Software with postgraduate level CAL material, such as MRCOG examination revision packages, is numerous. There may be much low quality material about, but also abundant educational material relating to obstetrics

TABLE 1.
Ranking in order of perceived value and mean scores of common components of postgraduate medical education

Trainees		District tutors	
Activity	Mean score	Activity	Mean score
Attending courses	3.0	Clinical meetings*	2.3
Reading journals	3.4	Teaching programmes	2.9
Teaching programmes	3.5	Reading textbooks	4.0
Clinical meetings*	3.6	Reading journals	4.6
Reading textbooks	5.0	Attending courses	4.8
Journal club	5.3	Audit	4.9
Information technology†	5.8	Journal club	5.1
Audit	6.0	Information technology†	6.2

* The wording on the questionnaire was 'Attending clinical meeting (e.g. labour ward meetings, pathology meetings etc.)'. †The wording on the questionnaire was 'IT/Internet (inc. CD-ROMs, databases)'.

and gynaecology that is of high quality and widely accessible. Therefore, availability of suitable material should not be the reason why IT is valued less highly than traditional sources of information in postgraduate education such as reading, journal clubs and meetings.

CAL is not always the best form of teaching or learning (Devitt and Palmer, 1999); for it to be effective the software should be relevant, well presented and the user's performance should be appropriately assessed (Waugh et al, 1995). Limited access and skills coupled with failure to access the best materials will have a negative impact on the use of IT. However, the newness of the medium and the fact that it has not yet been absorbed into the wider structure of postgraduate education may be crucial reasons for the low value currently accorded to IT.

IT needs to be integrated into the totality postgraduate education, not left to be an interesting novelty well used by relatively few. At present the potential of IT in postgraduate medical education has yet to be realized, but its time may soon come.

CONCLUSIONS

Trainees and district tutors are intimately involved in postgraduate medical education but do not entirely agree on what the most useful educational activities are. There is greater unanimity as to the least useful activities. Many traditional components of postgraduate education are still felt to be very important. Although they have only been widely introduced in the last 5 years, formal teaching programmes in protected time are now a key part of postgraduate medical education.

There have been phenomenal developments in IT over the same time period and it has been suggested that in the future IT will become a vital educational resource. At present, however, it is not greatly valued by either trainees or trainers in obstetrics and gynaecology. HM

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KEY POINTS

- Traditional elements of postgraduate education remain important.
- There is lack of unanimity between trainees and district tutors.
- Formal teaching programmes are assuming a central role in postgraduate education.
- Information technology has yet to prove its worth to many involved in postgraduate education.