

A survey of clinical academic staffing in paediatrics and child health in the UK

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Background: The state of academic paediatrics in the United Kingdom is a source of anxiety in view of anecdotal reports of loss of identity within medical schools and reductions in staffing levels.

Aims: To measure the current numbers and recent changes in clinical academic staff in all university departments of paediatrics in the UK.

Methods: A questionnaire was sent to all 24 university departments of paediatrics where undergraduates are taught, and to the postgraduate institute of paediatrics.

Results: Full responses were obtained from 24 medical institutions. In the past five years there has been an overall 7.2% decline in clinical academic staff, but among lecturers there has been a 26% reduction. Nine of 24 departments had undergone changes in name with at least some loss of paediatric identity. In 12 of 24 centres it was felt that the research assessment exercise had resulted in some, or severe, detriment.

Conclusions: This study confirms the recent loss of academic training positions, leading to a serious concern about the future of academic paediatrics in some UK centres.

Although there has been considerable interest in academic staffing in UK British medical schools, there is very little data specific to paediatrics and child health. In 1995 the House of Lords Select Committee on Science & Technology published a report¹ on *Medical research and the NHS reforms*; they noted that there were significant disincentives to medical academic careers and concluded that there was need for an urgent enquiry. The following year the Committee of Vice Chancellors and Principals (now Universities UK) commissioned an independent taskforce to report on recruitment and retention of clinical academic staff in Britain. This, the Richards report, was published in 1997 and proposed a number of initiatives.

In October 1999 a joint report of the Department of Health and the Joint Consultants Committee concluded that better workforce data was required for planning and there was a need for a clearer career track for clinician scientists and those entering academic medicine. The Academy of Medical Sciences published a report² entitled *The tenure-track clinician scientist: a new career pathway to promote recruitment into clinical academic medicine* (the Savill Report) and subsequently published *Implementing the clinician scientist scheme*³ in 2002, recommending the establishment of tenure-track clinician scientist schemes for clinicians holding a higher research degree to obtain clinical and research training before becoming established as independent researchers. The Savill Report recommended funding 50 appointments per year for clinician scientists, but in the event less than 50 awards were made in the first two years of the scheme.

In 2001 the Council of Heads of Medical Schools and Deans of UK Faculties of Medicine (CHMS) published⁴ *A survey of clinical academic staffing levels in UK medical and dental schools* which showed that in October 2000 there was a total of 4963 full time clinical academic staff employed in UK medical schools. This report was updated⁵ in 2003 and showed a 14% reduction in numbers of all academic staff over this three year period.

In order to provide an evidence base for the state of current academic paediatrics in Britain we have obtained information from a manpower census questionnaire sent to all academic

departments in UK universities where paediatrics is taught at undergraduate or postgraduate level.

METHODS

A one page questionnaire was sent to all members of the Association of Clinical Professors of Paediatrics in April 2003. Each contact was asked for information on the numbers and seniority of clinical academic staff within their department. There were at that time 23 University Departments of Paediatrics and Child Health in the UK (England, Wales, Scotland, and Northern Ireland) with an undergraduate teaching programme and one postgraduate institute.

As well as information on current manpower, the questions covered the changes in clinical academic staffing over the previous five year period, whether there was still an identifiable department of paediatrics in the medical school, and an assessment of whether the most recent research assessment exercise (RAE 2001) had been beneficial or detrimental to the department.

RESULTS

Completed questionnaires were received from all 24 centres (table 1). There were 312.8 established full time equivalent (FTE) academic clinical staff at professorial, reader, senior lecturer, or lecturer level in these 24 centres. This included 117 professors, 139.8 readers/senior lecturers, and 56 lecturers. Table 1 includes the Funding Councils' contribution to these manpower figures. There was a higher proportion of professorial posts supported by a Funding Council (71%) than for other grades of academic staff (43% for readers and senior lecturers, 42% for lecturers).

Table 2 shows the changes in levels of staffing by different grades over the past five years up until April 2003. There was an overall reduction of 24.35 FTE posts (7.2%) during this period and it appears that most of this reduction has occurred in the previous three years.

Abbreviations: FTE, full time equivalent; NHS, National Health Service; RAE, research assessment exercise

Table 1 Numbers of academic staff in each of the 23 undergraduate medical schools (A–W) in the UK and the one postgraduate institute (X)

Medical school	FTE in post in April 2003			Change in the previous 5 years (+/–)		
	P	R/SL	L	P	R/SL	L
A	1 (1)	3 (2)	3 (1)			+1
B	2 (1)	4 (2)	0			–1
C	3 (2)	8 (1)	0			
D	8 (7)	8 (7)	3 (1)			–1
E	2 (2)	2 (0)	3 (1)			
F	2 (1.5)	4.5 (1)	0			–1
G	2 (2)	4 (2.7)	2 (1)			
H	1 (1)	4 (2)	1 (0)		–1	–1
I	2 (2)	5 (2)	1 (0)		+1	–1
J	6 (4)	6 (2.3)	4 (3)		–1	–1
K	4 (4)	14 (4)	2 (2)	–2	–2	–1
L	1 (0.5)	1.3 (0.8)	4 (1)	–1	–2.35	–2
M	3 (1)	4 (1)	3 (0)		+1	–1
N	5 (4)	4 (4)	4 (4)			
O	6 (5)	5	0		–2	–3
P	8 (7)	1 (1)	4 (1)		–1	
Q	5 (3)	6 (1)	4 (2)	+1	+1	
R	3 (2)	4 (2)	3 (2.5)		+2	+1
S	6 (3.2)	4 (3)	3 (1)			–2
T	1 (1)	8 (3)	1 (0)		+1	–2
U	3 (3)	2 (1.5)	1 (1)	+1/–1	–1	
V	1 (1)	3.5 (3)	0		+1.5	–2
W	3 (1.2)	8 (6)	5 (2)	–1	–0.5	
X	39 (24)	26 (9)	5 (–9)	+9	–1	–9

Numbers in brackets represent those supported by Funding Councils.
P, professor; R, reader; SL, senior lecturer; L, lecturer.

The major part of the reduction in staffing numbers has occurred at the lecturer grade (26% reduction) and comprised mainly Funding Councils posts. Some lecturer posts were re-badged from Funding Council to NHS supported posts. In all, 28 posts were reported to have been lost and only two new posts were created. There has been a much less marked reduction in posts at reader or senior lecturer level (3%). This apparently small net reduction comprises a total loss of 11.85 FTE posts at this level (mainly Funding Council) and a 7.5 whole time equivalent (WTE) increase (mainly NHS funding or funding derived from losing lecturer posts). The increase in the number of professors is largely accounted for by the nine newly appointed clinical staff at professorial grade in the one postgraduate institute which exactly matches the reduction in the number of lecturer grade posts in the same institute over the same period of time.

The respondents were asked whether they still had a recognised Academic Department of Paediatrics and/or Child Health at their medical school. In 15 medical schools there had been no change to their title (in one a change was soon to take place). Nine had changed their title; of these two could still be identified as paediatrics or child health. Eight had been subsumed into a much larger department with no paediatric identity at all.

The questionnaire also asked the respondent to rate the effect of the most recent RAE on staffing levels within their department. In 12 of the 23 centres, it was felt that the RAE had some, or severe, detriment to the working of their

academic department. Nine felt that there was some, or strong, benefit, and three had detected no change.

DISCUSSION

A similar trend to the one we report here has been observed across all clinical academic disciplines in a recently published report on academic manpower in the UK.⁵ Factors contributing to the decline in paediatric clinical academic staff numbers are considered here.

Effect of the RAE

In 1997 an anonymous annotation was published in the *Archives* describing clinical paediatric research as being under threat.⁶ In addressing this issue again some six years later we can find little to suggest that the situation has improved. Rather, the results of our survey support the notion that it is getting worse. In 1997 the research assessment exercise (RAE) was identified as a major factor in the decline in paediatric research⁶ which was not seen to be “scientific” enough.

Our census of paediatric academic manpower has highlighted the overall reduction in numbers of lecturers by 26 FTEs. This will inevitably reduce the training opportunities for aspiring young academics. The RAE has been the main factor in causing universities to disestablish lecturer posts in medical schools because they are seen as non-returnable.⁶ The fact that they do not meet the strict criteria for being research active is scarcely surprising since, unlike non-clinical lecturer posts, their clinical equivalents provide clinical and academic training.

In our survey, 12 of the 23 centres felt that RAE 2001 had some, or severe, detriment to the working of their academic department. As a direct result of medical schools maintaining high RAE ratings, nine undergraduate departments have lost their paediatric identity. This may be seen as enhancing the research profile of the institution, but without a clearly labelled academic department of paediatrics and child health it will be difficult to provide role models for future

Table 2 Changes in clinical academic staff FTEs over the five year period ending in April 2003

	Professor	Reader/senior lecturer	Lecturer
Increase	2	7.5	2
Reduction	5	10.85	19
Net change	–3	–3.35	–17

generations of paediatricians and paediatric clinical academics.

It could be argued that for paediatric research a reduction in numbers of clinical academics may be beneficial if there is a greater concentration of the best of them in fewer institutions, each of which is reaching international standards. There is indeed some support for this hypothesis to be derived from the results of our survey as nine departments thought that the most recent RAE (arguably the gold standard of international research excellence) had had a strong or some benefit to their institutional profile. Most who held this view were not entered as a paediatric discipline, but as part of a larger research group, often with no obvious paediatric identity. While we feel that there should be no special pleading for paediatrics in comparison with other specialties, it appears to be the case that many academic paediatricians are being discouraged from clinical research because of the move towards perceived institutional research strengths and a lack of clarity as to their role.

Teaching and clinical service

Teaching undergraduate medical students has been a traditional role for paediatricians, both academic and non-academic. Four new medical schools have been set up in England and many existing schools have increased the number of admissions to increase capacity. Since 1997 there has been a 60% increase in the number of medical students in England, and since 2000 a 29% increase in the UK as a whole,⁷ accompanied, as discussed above, by a significant reduction in the number of clinical lecturers, and to a lesser extent more senior staff. Lecturers have an important role in teaching medical students and organising undergraduate programmes of education in paediatrics. It is inevitable that with the reduction in the number of lecturers and senior lecturers, and the marked increase in students, teaching quality will deteriorate. Some of the shortfall may be made up by NHS consultants, but curriculum design, organisation of teaching programmes, and examinations will remain the province of academic paediatricians. The results of our survey would suggest that undergraduate teaching is becoming increasingly stretched as the result of the reduction in the numbers of lecturers. Furthermore, the relative aging of the population of senior paediatric academic staff in UK medical schools, taken together with the reduction in lecturer grades, will result in a further rapid reduction in numbers of academic staff in the next five years.

Many academic paediatricians, like those in other acute specialties, have a significant clinical role which may be well in excess of five clinical programmed activities per week. This makes the time available for research and teaching more difficult to protect and often results in an excessively long working week. This unremitting working pattern may be seen by juniors and aspiring academics as inappropriate to a satisfactory professional and family-friendly working arrangement, and this may inhibit younger people from entering academic paediatrics.

Research training

The Academy of Medical Sciences concluded that clinical research in general is in decline in the United Kingdom,^{8,9} and identified reasons for this. One was lack of appropriately trained clinical scientists and a career structure to support them. The results of our survey would suggest that the reduction in numbers of clinical academic staff, particularly lecturers, reinforces this point in respect of paediatrics. In 2000, only 5% of clinical academic staff worked in a paediatric area,⁴ and our survey suggests that this figure may have fallen further since then.

The development of the Clinician Scientist grade has been proposed as the way forward for training future medical academics. Unfortunately far fewer of these posts have been funded than initially recommended and it is difficult to obtain information on how many appointments have been made to date. We also do not know how many young paediatricians have been appointed to these scarce posts, although there are six at the Institute of Child Health and a further handful scattered through other departments in the UK.

The 26% reduction in the numbers of paediatric lecturers will make accessing Clinician Scientist posts in future even more difficult. Many specialist registrars with ambitions to become academic paediatricians have seen the lecturer grade as an opportunity to receive research training. A survey in one medical school revealed that every clinical professor (all disciplines) had reached their current position via a clinical lectureship post.⁵ There are a variety of models in Britain for specialist registrars to achieve academic training, but obtaining an MD/PhD has up until now been regarded as essential before being eligible for consideration for a Clinician Scientist Fellowship.

Our survey did not find wholly negative views about the impact of the RAE on research, indeed almost one third of respondents thought the RAE had been of some benefit to them. Those who expressed this view felt that the coalescence of research expertise within a medical school across specialty boundaries was valuable and enhanced research and research training opportunities. This is undoubtedly true in some cases, but the other side of this coin is the loss of identified paediatric research and sometimes the loss of all paediatric identity within the medical school.

The impact of changes in clinical training

With the introduction of the European Working Time Directive, many trainees work full shift systems which erodes up to one third of their training time, previously available for research or teaching. This, together with the reduction in the duration of time in training grades due to implementation of Modernising Medical Careers (MMC), will make it very difficult for lecturers and academic registrars to spend sufficient time doing research in order to obtain independent funding for undertaking a PhD. However, there are signs that the needs of clinical academic training are being recognised by those responsible for MMC with the possibility of a research training option in the Foundation years and flexibility of timing of research thereafter.

A further possible reason for the reduction in lecturer posts is the Department of Health's aim to increase the numbers of consultants and to reduce the time in training. All clinical academic trainees will require up to three years out of clinical training to obtain a higher degree, and in some deaneries this is perceived as time wasted for clinical training. Postgraduate deans control the flow of staff through the training grades and it has been suggested that, due to pressure from the Department of Health, they may be restricting out of service opportunities, including time for research, in order to hasten the rise in consultant numbers. This has been confirmed by the lead Postgraduate Dean for paediatrics (personal communication).

Conclusions

Although we have documented a worrying decline in numbers of clinical academic staffing levels in paediatrics and child health, it is important to see this in the context of what is happening in other clinical disciplines.⁵ The overall 10% decline reported by CHMS between 2000 and 2003 in all paediatric academic grades compares with a decline of 25% in pathology, 28% in psychiatry, and 32% in public health

medicine. Academic staffing in academic adult medicine has declined by 9%, a similar proportion to that in paediatrics. Interestingly obstetrics and gynaecology, a specialty often compared with paediatrics for its strong clinical links, only declined by 5% in overall numbers of academic staff over a similar period of time.

There remains serious concern about the future of academic paediatrics in the UK. The RAE appears to have focused research towards the laboratory and has led to the decline of paediatrics as a research grouping in universities. This has had the effect of strengthening “paediatric research” in a few institutions while significantly weakening it in about half. This has also had a major effect on reducing the number of young aspiring clinical academics at the lecturer grade and will result in further pressure on teaching, training, and recruitment of the next generation of clinical academics. The resulting “grey shift” of senior paediatric staff can only weaken academic paediatrics in the UK and could, if unchecked, lead to its demise in all but a few centres. We suggest that paediatric academic staff numbers continue to be monitored in order to determine whether the decline we have noted continues.

Some of the issues that we have highlighted are specific to paediatrics and child health, but many are not. Broadly, the problems and solutions fall into two categories: recruitment and training.

Recruitment needs to start early, during the undergraduate years, with opportunities to become involved in research via the intercalated BSc, and innovative student selected components (SCCs) and summer vacation projects. Many potential recruits to paediatrics, including possible future academics, lose contact with the discipline after qualifying because of the lack of paediatric junior house officer posts.

Whatever the final shape of the training package to emerge from the debate about modernising medical careers, we believe that it is essential to maintain flexible career pathways for those pursuing a career in academic paediatrics, whether based in research, teaching, or a combination of these.^{10 11} This can best be achieved by formulating ad personam programmes—a process which should be facilitated

by the introduction of the competency based Certificate of Clinical Training. The Clinician Scientist Programme, even if it fulfils its intended quotas, is never likely to be able to provide opportunities for more than a small minority of paediatric academic trainees, and it is essential that the existing clinical lecturer posts, whether re-badged as academic SpRs/clinical research fellows or not, be retained. However, this will only be achieved if they are properly constructed as academic training posts¹⁰ and we manage to stop the RAE tail wagging the clinical academic training dog.

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