

Learning in practice

Preregistration house officers in general practice: review of evidence

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Abstract

Objectives To examine the strengths and weaknesses of the national and local schemes for preregistration house officers to spend four months in general practice, to identify any added value from such placements, and to examine the impact on career choices.

Design Review of all studies that reported on placements of preregistration house officers in general practice.

Setting 19 accounts of preregistration house officers' experience in general practice, ranging from single case reports to a national evaluation study, in a variety of locations in Scotland and England.

Participants Views of 180 preregistration house officers, 45 general practitioner trainers, and 105 consultant trainers.

Main outcome measures Main findings or themes weighted according to number of studies reporting them and weighted for sample size.

Results The studies were unanimous about the educational benefits of the placements. The additional learning included communication skills, social and psychological factors in illness, patient centred consultations, broadening of knowledge base, and dealing with uncertainty about diagnosis and referral.

Conclusions Despite the reported benefits and recommendations of the scheme, it is not expanding. General practitioner trainers reported additional supervision that was unremunerated. The reforms of the senior house officer grade may resolve this problem by offering the placements to senior house officers, who require less supervision.

Introduction

In 1998 the government made funding available to support a national scheme for preregistration house officers to spend four months in general practice as part of their preregistration year. Before this, placements in general practice were uncommon, partly due to the wording of the Medical Act 1983, which limited the placements to health centres (amended in 1998), and partly because of the burden of supervision,

additional costs, and administration. In contrast, in Denmark all young doctors spend six months in general practice after finishing university.¹ But attitudes in the United Kingdom were changing in the 1990s, and the General Medical Council indicated that general practice should be viewed as an appropriate setting for trainee doctors to learn the duties of a doctor in advance of full registration: "Such a post will offer invaluable insights into the interface between primary and secondary care for the intending hospital specialist as well as enabling PRHOs contemplating a career in general practice to assess the validity of their choices."² The General Medical Council has identified broad aims for general clinical training in hospital and in general practice.³ We reviewed all the studies that reported on placements of preregistration house officers in general practice to determine the strengths and weaknesses of the scheme, to identify any added value from such placements, and to examine the impact on career choice.

Methods

We searched Embase, Medline, ERIC, FirstSearch, PsycINFO, and the search facility of www.timelit.org.uk and www.educationgp.com with the key words "pre-registration," "house officer," and "general practice." We also checked the reference sections of identified articles for any studies not picked up on the databases.

As this is a relatively under-researched area, we aimed to include all studies that reported on the experiences of preregistration house officers in general practice in the United Kingdom, irrespective of sample size. We listed the main findings or themes from each study and compared them with others to determine common themes. These were weighted according to the number of studies reporting the theme and the sample size; studies with larger samples were given a higher weighting.

Results

In 1998, 42 new programmes for preregistration house officers were established and evaluated as part of a national initiative.³ The evaluation of the national

(see also p 1011)

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Results of literature search for preregistration house officer placements in general practice

Study	No of preregistration house officers	No of general practitioners	No of consultants	Methods	Location
Grant and Southgate (2000) ³	54	25	84	Postal survey	National
Illing et al (1999) ⁴	3	1	—	Interviews (qualitative study)	North east
Rowan-Robinson and Challis (2000) ⁵	5	5	—	Interviews (qualitative study)	Mid-Trent
Hewitt et al (2001) ⁶	6	4	4	Interviews (qualitative study)	Edinburgh
Harris et al (1985) ⁷	9	—	—	Self completion questionnaire	London
Freeman and Coles (1982) ⁸	10	—	—	Postal questionnaire	Southampton
Parsons et al (1998) ⁹	12	—	—	Interviews (qualitative study)	London
Williams et al (2001) ¹⁰ (2000) ²² (2001) ²³	12	9	17	Interviews (qualitative study)	London
Wilton (1995) ¹¹	26	—	—	Postal questionnaire	London
Page (2001) ¹²	34	—	—	Postal questionnaire (qualitative)	Manchester
McGuinness (1982) ¹³	1	1	—	Single case report	Liverpool
Taylor and Thomas (1997) ¹⁴	1	1	—	Single case report	North east
Oswald and Kassimatis (1989) ¹⁵	1	—	—	Single case report	Cambridge
Illingworth (1994) ¹⁶	1	—	—	Single case report	Not stated
Greenwood (2001) ¹⁷	1	—	—	Single case report	Norfolk
Moore (2000) ¹⁸	1	—	—	Single case report	Not stated
Oswald (1998) ¹⁹	1	—	—	Single case report	Not stated
Cohen (1998) ²⁰	1	—	—	Single case report	London
Blackmore (2002) ²¹	1	—	—	Single case report	Leeds

scheme was conducted by postal questionnaire. The study compared the new rotations of four months in general practice, surgery, and medicine with the conventional rotations of six months in medicine and surgery. Overall, 51% (54 of 96) of preregistration house officers on the new general practice scheme responded, thus we advise caution in generalising from the findings.

Local schemes, usually offering placements at only one or two practices and involving a smaller number of doctors, were also reported. Sample size ranged from single cases to 34 cases (table).⁴⁻²¹

Response rates for the local studies were higher, but sample sizes were smaller. Several studies used qualitative methods, reporting main themes rather than responses to questions.^{4-6 9 10 12} We report on the views of 180 preregistration house officers, 45 general practitioner trainers, and 105 consultant trainers (table).^{3 4 6 22 25}

Generally the schemes have been run by enthusiasts; none the less they have been self critical.^{3 7 8 12} Not all the preregistration house officers were considering a career in general practice, but generally they approved of the scheme.^{3 5 7 9 11 12}

Strengths of scheme

Views of preregistration house officers and trainers

The preregistration house officers interviewed in the local studies reported the experience as beneficial and enjoyable and they would recommend it.⁴⁻¹² General practitioner trainers were generally positive about the experience,^{3 6 9 13 14 25} with several commenting on the benefits for hospital doctors.^{3 5 9}

Length and order of placements

Although there were variations in the length of the schemes,^{4 8 15 16} most studies involved rotations of four months in general practice, medicine, and surgery, and this was viewed as about right.^{3 6-8 11} Concern had been expressed that spending the first four months in general practice might disadvantage house officers,^{8 23} but this did not always seem to be the case,^{3 9 23}

although there may be greater isolation from peers.¹² However, those in general practice later in the rotation were reported to have more confidence and to require less supervision.^{3 12 23}

Meeting the aims of the General Medical Council

The aims of the General Medical Council could be met in general practice placements.^{2 5 7-10} The national evaluation reported that the house officers in general practice had similar learning experiences to those on traditional rotations, including communication skills with colleagues and patients, consultation skills, awareness of illness presentation, and the ability to investigate illness appropriately.³

Added value

The national evaluation reported that a wider variety of learning was experienced by house officers in general practice rotations than those on traditional rotations and, in 26 of the 51 areas measured, the house officers in general practice were judged to be more competent than the reference group. House officers in general practice gained more experience in

Box 1: Experiences gained by preregistration house officers in general practice rotations

- Social and psychological factors in illness
- Patients' expectations, and sharing information and decisions with patients
- Specific disease management and prevention
- Incidence and prevalence of disease in the community
- Management of common and chronic illness in the community
- Assessment of patients at home
- Referral
- Skills in information technology
- Ethical and legal aspects of practice³

Box 2: Main themes emerging as new areas of learning in general practice

- How social and psychological factors impinge on physical health^{4 7-11 14 16 25}
- Broadening of knowledge base, including learning about common illness^{4 6 7 10 16 25}
- Learning a different doctor-patient relationship, involving patients in decisions^{8 9 10 12}
- Improving communication and consultation skills^{4 5 9 10}—for example, sharing information with patients (more likely in general practice than in hospital)^{23 24}
- Having greater responsibility for the management of patients^{4 9-11 25}
- Learning about diagnostic uncertainty in the community and hospital referral^{4 7 9-11 14 16 19 20}
- Gaining experience of areas not usually encountered, such as psychiatry, paediatrics, and obstetrics and gynaecology^{4 10 15 17 20}

several areas (box 1). The local studies had similar findings (box 2).

The national evaluation found that communication skills with patients improved for the house officers regardless of placement. In the qualitative studies, however, the house officers cited communication skills as not only improved but better in general practice,^{4 5 10-12} and that communication with general practitioners had improved subsequently.¹⁰

Uncertainty about diagnoses in the community without the benefits of continuous observation or nursing care and easy access to tests and other professional opinion was an important learning experience and changed attitudes towards hospital referrals.^{4-7 9-11 14 16 19 20} The house officers also reported acquiring a range of generic skills, including teamwork, preventive care, informatics, and organisational skills.^{5 10}

Supervision

Tutorials and supervision occurred more often in general practice than in hospital and was reported enthusiastically by the house officers.^{3 4 9-11} Views about supervision in hospital were more guarded.^{4 6 18} The consultant trainers were supportive.^{3 6 22} The national evaluation gained views from 29 consultants involved in the scheme and reported that 93% wanted to continue with it.³

Weaknesses of scheme*Views of house officers*

Some house officers felt isolated from their peers, and most placements required a car.^{3 6 9-12 23} The inability of house officers to sign a prescription was reported by some as a problem,^{6 11} whereas others reported that this created opportunities for education.^{4 10 25}

Views of trainers

Some general practitioner trainers highlighted the additional supervision needed for the house officers compared with registrars.^{3 4 5 7 25} The trainers reported a 10% increase in their working week to supervise house officers and requested additional funding.^{3 4 7 9 25}

Influence on career

Around 5% of house officer rotations are in general practice. Studies that examined the impact of such rotations on job interviews found that they helped rather than hindered careers.^{7 11 12} This experience was likely to increase consideration of a career in general practice.^{3 11 12} As most doctors make career choices towards the end of their preregistration year, placements in general practice may boost recruitment to this setting.²⁶

Discussion

The studies we reviewed favoured placements of pre-registration house officers in general practice. Such schemes represent a valuable training opportunity and an important means by which trainee doctors gain experience of general practice. This experience is an essential accompaniment to training in hospital, enabling the development of a range of competencies. Despite this, schemes are not expanding but continue, owing to the efforts of committed enthusiasts, alongside concerns that the financial support available does not reflect the degree of supervision provided. Such concerns were also reported in a New Zealand study.²⁷ The recent proposals for the reform of the senior house officer grade offer a potential solution.²⁸ The preregistration year is to be combined with a generic first post-registration year to form a foundation programme lasting two years, which all doctors would undertake. It recommends that all doctors could experience general practice as part of their foundation programme. The question then is not whether experience in general practice should be included as part of postgraduate medical education regardless of intended career, but whether this experience should be before or after registration. Postponing general practice placements to the second year of the foundation programme would overcome many of the difficulties with supervision while maintaining the benefits of both medical education

What is already known on this topic

Pilot schemes across the country have offered preregistration house officers the opportunity to rotate into general practice

Many studies have reported on these rotations, but there has been no review summarising their strengths and weaknesses

What this study adds

Rotations in general practice are unanimously welcome and offer a valuable training opportunity

However, the schemes are not expanding, mainly because of the unremunerated supervisory role of trainers

Proposed reforms to the senior house officer grade may help by offering placements to senior house officers instead, who are able to prescribe and require less supervision

and recruitment to general practice. The capacity for training in general practice would need to be enhanced to cope with the increased numbers.

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- 1 Fuglsang H, Olesgaard P, Pedersen NF, Olesen F. Patients' attitudes towards and satisfaction with interns in general practice. Practicing interns and patient satisfaction. *Ugeskrift Laeger* 158;1996:5768-72.
- 2 General Medical Council. *The new doctor: supplement on general clinical training in general practice*. London: GMC, 1998.
- 3 Grant J, Southgate L. *Pre-registration house officer placements in general practice*. Milton Keynes: Centre for Education in Medicine, Open University, 2000. (NHSE Report.)
- 4 Illing J, Taylor G, van Zwanenberg T. A qualitative study of house officer attachments in general practice. *Med Educ* 1999;33:894-900.
- 5 Rowan-Robinson M, Challis M. Pre-registration house officer (PRHO) placements in general practice: reflections on the experience in Mid-Trent. *Educ Gen Pract* 2000;11(3):259-67.
- 6 Hewitt N, McKinstry B, Wilton J. Pre-registration house officers in general practice: a report on the experience in South East Scotland 1998-99. *Educ Gen Pract* 2002;12:185-92.
- 7 Harris CM, Dudley HA, Jarman B, Kidner PH. Preregistration rotation including general practice at St Mary's hospital medical school. *BMJ* 1985;290:1811-3.
- 8 Freeman GK, Coles CR. The pre-registration houseman in general practice. *BMJ* 1982;284:1379-831.
- 9 Parsons S, Gregg R. *A qualitative evaluation of general practice rotations during the pre-registration house officer (PRHO) year in the North Thames region*. London: Queen Mary and Westfield College, University of London, 1998.

- 10 Williams C, Cantillon P, Cochrane M. The clinician and education experiences of pre-registration house officers in general practice. *Med Educ* 2001;35(8):774-81.
- 11 Wilton J. Pre-registration house officers in general practice. *BMJ* 1995;310:369-72.
- 12 Page J. *Evaluation of the experiences of pre-registration house officers*. Manchester: North West Deanery, University of Manchester, 2001.
- 13 McGuinness BW. A house officer attachment in general practice. *Practitioner* 1982;226:1216-8.
- 14 Taylor G, Thomas M. The pre-registration year in general practice as an educational and diagnostic tool. *Educ Gen Pract* 1997;8:51-5.
- 15 Oswald N, Kassimatis M. A house officer attachment in general practice: a different experience. *Med Educ* 1989;23:322-7.
- 16 Illingworth C. The pre-registration alternative. *BMJ* 1994;308:1109.
- 17 Greenwood KH. What the GP re-registration house officer saw—a personal view. *Med Educ* 2001;35:305.
- 18 Moore I. Dr Isobel Moore's story. *Educ Gen Pract* 2000;11(3):329-330.
- 19 Oswald N. Preregistration house jobs in general practice. *BMJ* 1998;317:2.
- 20 Cohen M. The GP pre-registration house officer: the potential learning experience of primary care. *Hosp Med* 1998;59:502-4.
- 21 Blackmore M. Life as a GP preregistration house officer. *BMJ* 2002;324:111.
- 22 Williams C, Cantillon P, Cochrane M. Pre-registration rotations into general practice: the concerns of pre-registration house officers and the views of hospital consultants. *Med Educ* 2000;34:716-20.
- 23 Williams C, Cantillon P, Cochrane M. Pre-registration house officer rotations incorporating general practice; does the order of the rotation matter? *Med Educ* 2001;35:572-7.
- 24 Thistlewaite JE. Making and sharing decisions about management with patients: the views and experiences of pre-registration house officers in general practice and hospital. *Med Educ* 2002;36:49-55.
- 25 Williams C, Cantillon P, Cochrane M. Pre-registration house officers in general practice: the views of GP trainers. *Fam Pract* 2001;18:619-21.
- 26 Edwards C, Lambert TW, Goldacre MJ, Parkhouse J. Early medical career choices and eventual careers. *Med Educ* 1997;31:237-42.
- 27 Holden J, Pullen S. Trainee interns in general practices. *NZ Med J* 1997;110:377-9.
- 28 Donaldson L. *Chief Medical Officer unfinished business: proposals for the reform of the senior house officer grade. A paper for consultation*. NHS, 2002.

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A memorable patient

Delivery from evil

Newly qualified, idealistic, and inexperienced, I went to work in a hospital in rural Thailand. Patients travelled great distances to visit the foreigner's hospital. Many were helped by our standard treatment, hookworm medicine, multivitamins and iron. Our obstetrics practice was of the blood and thunder variety. Patients rarely came until they had been in labour for several days, arriving in obstructed labour, often with a uterus already ruptured. To establish an antenatal clinic was one of our main goals.

One morning a young pregnant woman arrived in my clinic room. She was neatly dressed in bright new clothes. I thought, "At last someone has come for antenatal care." I quickly realised that things were not as they seemed, and even with my limited Thai I was able to pick out the words "afraid of water." Without a word the Thai nurses handed the woman a glass of water. For the first and only time in my life, I saw the dreadful contortions of the face and neck muscles of a rabies patient as she tried to drink.

The standard hospital practice was to confirm the diagnosis and send the patient home with a generous supply of opiates. But in this case there were two patients, a mother and a full term baby. A search through a medical textbook confirmed that rabies does not pass the placental barrier.

Country people were all too familiar with rabies and the dreadful death that followed. In those days, they also believed that to die with an unborn baby was extremely unlucky, and that the spirit of such a child was extremely malignant and would bring trouble to the family. I offered the woman's family a caesarean

section, promising a live baby and that the woman would die without suffering. They readily agreed.

The surgery went well. It was an awesome experience to anaesthetise a patient knowing that there was to be no recovery. The anaesthetic nurse explained quietly to her what was to happen and then prayed with her for the safety of her baby. After the operation, we continued to run a suxamethonium drip and to ventilate her: after 24 hours her heart stopped.

That was more than 30 years ago. In Thailand rabies is now a thing of the past. Stray dogs are carefully controlled, household dogs are immunised, and rabies vaccination is widely available. A network of government clinics cover the country, and antenatal care and safe delivery are available even in the most isolated communities.

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We welcome articles up to 600 words on topics such as *A memorable patient*, *A paper that changed my practice*, *My most unfortunate mistake*, or any other piece conveying instruction, pathos, or humour. If possible the article should be supplied on a disk. Permission is needed from the patient or a relative if an identifiable patient is referred to. We also welcome contributions for "Endpieces," consisting of quotations of up to 80 words (but most are considerably shorter) from any source, ancient or modern, which have appealed to the reader.