

## ORIGINAL ARTICLES

### It's Getting Better: Progress in Medical Senior House Officer Training in Scotland

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#### ABSTRACT

##### Objectives

To identify factors which influence the quality of education and training for medical senior house officers (SHOs) in Scotland compared to a study in 1995.

##### Design

Postal questionnaire to collect both qualitative and quantitative data.

##### Participants

All 640 SHOs in hospital general medicine and medical specialty posts were identified; 395 (62%) responded.

##### Main outcome measures

Working patterns, experience of education and training, career choice, and an "attitudes to work" scale.

##### Results

Sixty seven percent of SHOs had been in post for 2 years or less. Seventy three percent work some form of shift pattern compared to 28% in 1995. There were improvements in on the job feedback (92% v 27%), and awareness of educational supervisors (96% v 48%). SHO specific teaching was only available to 49% and was rarely bleep-free. Sixty eight percent had made career decisions. There was a statistically significant improvement in 20/25 components of an attitudes to work scale.

##### Conclusions

Overall medical SHOs have more positive attitudes to their work in 2003 than in 1995, mirroring educational improvements in the work place and changes in working patterns. There remain challenges particularly in provision of formal educational activities.

#### Introduction

For many years there were concerns regarding the standard of training and education provided for the senior house officer (SHO) grade in hospital medicine.<sup>1,2</sup> Problems identified by previous research include overwork, career indecision, lack of protected teaching time,<sup>3,4</sup> an inability to take study leave and insufficient practical experience.<sup>5,6</sup> In 1995 a Scotland-wide survey of medical SHOs reinforced many of those findings, and concluded that there were significant pressures on SHOs in relation to working hours and shift patterns, and tensions between service commitments and educational provision.<sup>7,8</sup> The present study was undertaken to revisit the quality of the educational climate for medical SHOs in Scotland in 2003 and to seek evidence of change since 1995.

#### Methods

A combined qualitative and quantitative approach was undertaken utilising a postal questionnaire including an attitude to work scale developed by Firth-Cozens (FCAWS) and used in the 1995 study. This scale comprises 25 statements reflecting a mix of positive and negative attitudes to work, rated on a 5-point scale ranging from strongly disagree, to strongly agree. At the start of the study, 2 focus groups and 12 one-to-one interviews provided insight into how SHOs perceive their current education and training and this qualitative approach was used to update the content of the 1995 questionnaire. Questions related to demographics, type of post, hours, workload, educational supervision, training experience and career plans. They were similar, but not identical to, the questions used in 1995. There was opportunity for free-text comments.

All SHOs in Scotland in general medicine and medical specialties, including those in posts forming part of a General Practice Vocational Training Scheme (GPVTS) were identified through Deanery, Royal College and hospital channels (640 posts). The questionnaire was posted and followed up with two reminders to maximise response.

Statistical analysis of data was undertaken using MiniTab to compare 1995 (T1) and 2003 (T2) data.

#### Results

Three hundred and ninety five replies were received, a response rate of 61.7%. This was similar across the four Deaneries. A slight majority of female respondents (55%) was compatible with the expected proportion in the target group and compared to 45% in 1995. Eighty one percent were UK graduates, 2% 'Other European' and 17% 'Non-European'. Eighty four percent were aged 30 years or younger. Almost two thirds had held an SHO post in the United Kingdom for up to two years and fewer than 5% for more than four years compared to 29% in 1995.

Thirty nine percent were on medical rotation schemes, 9% in GPVTS and 48% were in 6 to 12 month stand-alone posts.

The Firth-Cozens' <sup>9</sup> attitudes to work scale (FCAWS) showed that the 2003 SHOs were consistently more positive in their responses, and only 5 of the 25 comparisons did not achieve statistical significance

	T1	T2
'I am useful most of the time'	88%	93%
'The responsibilities of the job are overwhelming'	22%	17%
'I do not see myself continuing in medicine'	15%	13%
Experience of selection committee bias on grounds of gender	14%	12%
Experience of selection committee bias on grounds of race	14%	12%

The remaining questions in the scale cover a wide variety of topics and are reported in conjunction with the results of the detailed questionnaire.

### Working Patterns

One in six of those responding to the question on contracted hours did not know their hours, and of those that responded 78% worked fewer than 56 hours per week compared to 6% in 2003. Table I shows the range of working patterns in the two studies. Sixty three percent of those giving an opinion preferred some form of shift-work. The most frequently cited from the 365 respondents were: social factors (55%), educational reasons (47%) and clinical service needs (37%).

**Table I Working Pattern in 1995 (T1) and 2003 (T2) and Preferred Working Pattern in 2003 (T2)**

	Declared working pattern		Preferred
	T1	T2	T2
	No (%)	No (%)	No (%)
<b>On-call rota</b>	180(72)	104(27)*	123(34)
<b>Partial shift</b>	35(14)	121(31)	104(29)
<b>Full shift</b>	13(6)	93(24)	87(22)
<b>Mixed shift/hybrid rota</b>	18(7)	60(15)*	36(9)
<b>No response</b>	NK	12(3)	38(10)

These results are mirrored in the Firth-Cozens' scale where in response to the statement 'I have to work unreasonably long hours' there was a positive shift from

54% (T1) to 28% (T2) and 'I am able to enjoy my personal life' from 60% (T1) to 78% (T2),  $p = <0.001$ .

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### Clinical Work

Seventy three percent of respondents were in posts that involved acute receiving duties. There was considerable variation in numbers of patients admitted, ranging up to 60 per 24 hours, reflecting different sizes of hospitals. Two thirds felt that the balance of in-patient and out-patient work was educationally appropriate. This was mirrored in the FCAWS question: 'I am satisfied with the variety in my job' which increased from 63% at T1 to 73% at T2.

	T1	T2
'I have to work alone too often'	35%	22%*
'I am under great pressure at work'	57%	42%*
'I am confident in my abilities'	68%	82%*
'I regularly feel I am working beyond my capabilities'	20%	13%**

\*  $p = <0.001$  \*\*  $p = <0.05$

Agreement with the four statements also showed an improvement in SHOs' responses to work.

### Educational Environment

The biggest changes were observed in this area. In 1995 only 48% could identify their nominated educational supervisor but this had doubled to 96% in 2003. Eighty three percent of the present respondents understood the educational objectives of their current post and 66% had completed a personal learning plan.

There was also improvement in the frequency and perceived usefulness of feedback from seniors. In 2003 for both in-patient and out-patient work, more than 90% received helpful feedback and over 60% felt that it was adequate or extensive in amount. By comparison, in 1995, 27% reported that feedback on in-patient work was either non-existent or limited and not helpful.

These findings were confirmed by the FCAWS with 25% at T1 and 55% at T2 agreeing that 'senior doctors let me know how well I'm doing'.

	T1	T2
'I can discuss work problems with senior colleagues'	68%	79%*
'I can discuss personal problems with senior colleagues'	20%	34%**
'My need for a reference pressures me to conform'	41%	21%**
'I have on occasions been bullied by senior doctors'	36%	19%**

\* p = <0.05 \*\* p = <0.001

Relationships with senior doctors also seemed better as agreement in these statements suggested:

Among the teaching opportunities described in 2003, almost all SHOs experienced regular teaching on wards, with spontaneous case discussion and questioning the most frequently used methods (95%); 19% had experienced teaching rounds led by consultants.

Formal education provision for SHOs is shown in Table II together with ability to attend and 'bleep-free' opportunities. Larger hospitals were more likely to provide SHO-specific and bleep-free teaching. Appreciation of teaching was evident in open-ended remarks, e.g. "teaching happens, regularly, on time, with good equipment, by specialists in those fields" and "current post is most educationally supportive with regular timetable specifically for SHOs."

**Table II Provision of formal education reported by 395 respondents in 2003**

	SHO Specific Tutorials	Relevant Hospital Meetings	Unit/ Specialty Meetings	Other formal teaching
	No (%)	No (%)	No (%)	No (%)
Regularly available	193(49)	238(60)	238(60)	70(18)
Usually able to attend	218(55)	260(66)	254(64)	111(28)
Generally bleep-free	85(22)	67(17)	71(18)	29(8)

### Career Plans

Sixty eight percent had made a decision about their future career plan. Hospital medicine/medical specialties were the choice of 48%, general practice 24% and other hospital specialties - including accident and emergency, paediatrics and radiology - accounted for 22%. This compared to 51%, 23% and 16% of those who had decided in 1995. Factors potentially influencing the decision of current SHOs to continue or leave hospital medicine are shown in Table III.

**Table III Factors potentially influencing the decision to continue in Hospital Medicine. More than one response allowed.**

	Encouraged by No (%)	Discouraged by No (%)
Experience of jobs so far	268(69)	76(19)
Career/promotion prospects	204(52)	80(20)
Hours	100(6)	186(48)
Shift patterns	74(19)	186(48)
Advice from others	176(45)	64(16)
Eventual financial prospects	169(43)	55(14)
Personal satisfaction	279(71)	70(18)

Several questions in the FCAWS covered career interests and advancement and agreement with statements showed a difference between the two studies:

	T1	T2
'I do not get adequate feedback for career purposes'	56%	33%*
'I am very satisfied with my choice of medicine as a career'	48%	69%*
'I am worried about career prospects in this speciality'	37%	28%*

\* p = <0.001

### Discussion

The responses to this survey came from a large group of SHOs working in Scotland in a variety of hospital settings including both large city conurbations as well as remote and rural hospitals. A uniformity of clinical experience is therefore unlikely although the educational climate should ideally be similar in all posts.

The most striking feature in this survey is the overall improvement in SHOs' attitudes to work between 1995 and 2003 evidenced by the improvement in rating scales in the Firth-Cozens' questionnaire. The more detailed questions developed from focus groups which mirrored the content in the original 1995 questionnaire also showed that the SHOs' perception of the educational environment and workplace support has improved greatly between the two studies.

A key finding of the 1995 study was that partial shifts are "detrimental to continuity of patient care, training, health and personal life". At that point, only 14% of SHOs in Scotland were working partial shifts. By 2003 this figure had risen to 58% including those working a hybrid of

partial and full shifts. The negative attitudes have not persisted and indeed the reverse is now apparent in both the questionnaire and FCAWS scale.

Improvements in the educational environment were apparent. Comparison between the two studies shows a significant and encouraging improvement in perceived feedback from seniors, both for inpatient and out-patient work. There was a marked increase (from 48% to 96%) in SHOs who knew the identity of their educational supervisor. There was contemporaneous progress in the numbers aware of the educational objectives of their post and who had completed a personal learning plan. These results are very similar to the comparable South London trainee survey,<sup>10</sup> and are congruent with the progress which has been tracked since 1996 by the continuous Educational Audit of SHO Posts in the North of Scotland Deanery.<sup>11</sup>

These improvements may be in part attributable to the higher priority given to SHO training in general by both NHS Education for Scotland (NES) and the medical Royal Colleges with the development of documentation such as the Portfolio and Progressive Training Record (PPTR) by NES, and the complementary Federation of Royal Colleges of Physicians' Core Curriculum and Record of Appraisal. This has led to an increased awareness of SHOs' educational needs, a more robust framework for appraisal and assessment and greater support and recognition of the educational supervisor's role.

Teaching was seen by the SHOs as a positive activity which supported and contributed to their confidence. As yet, SHO specific teaching is not fully developed and perhaps a central programme of topics produced by NES or the Royal Colleges might facilitate this.

Allowing for a significant proportion of SHOs as yet undecided, comparison with the previous study shows little change in career aspirations between hospital medicine and general practice. It is encouraging to note that for the vast majority, experience so far and personal satisfaction were perceived as influences to continue in hospital medicine. The reduction in numbers in SHO posts beyond 4 years would suggest career progression has improved since 1995.

## Conclusions

Significant gains have been made over 8 years between the two surveys. This has occurred against a rapidly changing

junior medical economy which has seen overall SHO post numbers rise by almost 50% and the 55% male preponderance reversed and a huge rise (6 to 78%) in those SHOs contracted to work fewer than 56 hours per week. It would appear that the educational improvements are substantially attributable to consultant staff embracing the standards and values promoted by educational organisations and the medical Royal Colleges. Thus feedback on the job, more overt senior support for acute receiving and more formal educational opportunities are now widespread.

Despite the many positive indicators, the responses also reveal that challenges remain. Ward duties appear to prevent almost half of SHOs from attending teaching sessions, and protected or bleep-free teaching time is still uncommon. Promotion of further change is pressing as the introduction of MMC will require ongoing high quality educational environments for training doctors for the future.

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