

Computerized evaluations of their education and training by senior house officers in the West Midlands

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A computerized monitoring system of senior house officers' evaluations of their education and training has been developed in the West Midlands. Four successive surveys over 2 years show some significant improvements in their education and training.

INTRODUCTION

Are we succeeding in improving the education and training of the 1500 senior house officers (SHOs) in the West Midlands?

Much effort in recent years has gone into measures aimed at improving SHO training by postgraduate deans, Royal Colleges, hospital trusts and the consultants who work in them (Standing Committee for Postgraduate Medical and Dental Education (SCOPME), 1992, 1994; Paice et al 1997; Biggs, 1998).

Postgraduate deans are responsible for commissioning and monitoring SHO training in trusts (Biggs, 1998), and have the power to remove funding for posts poorly served and to redistribute it to better training units if necessary.

Since 1997 we have used a computerized questionnaire, which is sent to all SHOs in the West Midlands every 6 months, approximately 1500 doctors. The reliability of the questionnaire was confirmed in a pilot study in 1997 (D Wall, D Woodward, A Whitehouse et al, 1999, unpublished observations). The purpose is to monitor their opinions of the educational quality of their experience in 10 areas. The information obtained allows feedback to trainers to inform and encourage them in their efforts to educate. It also allows

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recognition of outstandingly good and poor posts for appropriate action by the postgraduate dean.

METHOD

Every 6 months since June 1997 each SHO in the West Midlands postgraduate deanery has received a questionnaire (*Figure 1*), allowing marks from one to five on each of 10 areas relating to their educational experience. The forms are produced by the postgraduate deanery information department and sent to the relevant clinical tutor of the trust each November and May for completion in the first week of

December and of June. Each clinical tutor, supported by the postgraduate centre manager, takes responsibility for encouraging the SHOs to complete their form, and success rates vary from 100% for at least eight trusts in the most recent survey to around 50% for the least successful.

The results are manually entered into a custom-built database based on Microsoft FoxPro. The results in each subject area are recorded for each specialty in each trust. A report on the results for each trust is sent back to the clinical tutor with the results, highlighting good and not so good

In confidence		National Post Number	
		Post Evaluation Date	
Senior house officer post evaluation form			
Trust:			
Specialty:			
Consultant/Trainer			
A) Start Date in the Post	Month	<input type="text"/>	Year <input type="text"/>
B)	On call	Rota	<input type="checkbox"/>
	Arrangement	Full shift	<input type="checkbox"/>
	(please tick)	Partial shift	<input type="checkbox"/>
		Hybrid	<input type="checkbox"/>
C) Post evaluation table			
Scores: 5 (Excellent); 4 (Good); 3 (Acceptable); 2 (Needs attention); 1 (Unsatisfactory).			
Area	Scores		Comments and suggestions
Compliance with Junior Doctors Hours (New Deal)			
Induction to this post			
Appropriate clinical experience in post			
Level of supervision and responsibility			
Formal teaching			
Protected teaching (bleep free)			
Feedback on your work			
Study leave			
Postgraduate centre and library			
Accommodation and catering			
After completion please return to your local Postgraduate Clinical Tutor in the envelope provided. Thank you.			
Date completed	<input type="text"/>	<input type="text"/>	<input type="text"/>
For notes on completion see overleaf			

Figure 1. The senior house officer evaluation form.

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results. Good results within a specialty are commended, especially when repeated in successive surveys. Low scores (less than three) are also drawn to the attention of the responsible trainers, particularly if there is agreement between a number of SHOs within a department or if they occur in more than one successive survey. Advice is given designed to help local trainers to deal with areas poorly regarded by the trainees. The

report is discussed at the trust's postgraduate education committee, chaired by the clinical tutor. The way in which this potentially sensitive information is dealt with is left to the discretion of the clinical tutor, in the light of his/her knowledge of the local circumstances and personalities.

Survey results are available to members of the postgraduate dean's educational monitoring group when they visit each trust.

Data from the four surveys in 1997 and 1998 were analysed using the statistical package SPSS. Means and 95% confidence intervals were calculated for all results in each of the 10 categories. Next, linear regression analysis was performed for each category. This can be thought of as finding the straight line of best fit for the four means from the four sets of post evaluation data. The slope and the *t* and *P* values (that the slope is different from zero) were calculated to see if there was any improvement, i.e. if the slope was significantly different from zero.

TABLE 1.
Response rates and numbers for the four evaluation sets

Date of evaluation	Number sent (all SHOs)	Number of forms returned	Response rate (%)
May 1997	1349	865	63.2
November 1997	1536	1109	72.2
May 1998	1532	1209	78.9
November 1998	1536	1210 (1230*)	78.9 (80.1*)

* = Final response rate for the November 1998 evaluation, but including forms received after the statistical analysis was carried out. SHO = senior house officer

TABLE 2.
Results of the linear regression analysis on the ten areas for all senior house officer data

Area	Initial value	Slope*	<i>t</i>	<i>P</i> value
New Deal on junior doctors' hours	3.67	0.017	1.249	0.2
Induction	3.45	0.035	2.563	0.01
Clinical experience	3.81	0.048	4.073	<0.0001
Supervision and responsibility	3.81	0.042	3.494	0.0005
Formal teaching	3.40	0.039	2.873	0.004
Protected teaching — bleep free	3.30	0.038	2.312	0.02
Feedback on your work	3.23	0.065	4.782	<0.0001
Study leave	3.60	0.043	3.110	0.002
Postgraduate centre and library	3.66	0.037	2.772	0.006
Accommodation and food	2.88	0.022	1.505	0.1

* is the change per 6-month interval

RESULTS

The response rates are given in *Table 1*.

Linear regression analyses of the scores in each of the 10 categories for all four surveys between May 1997 and November 1998 are shown in *Table 2*. *Figure 2* shows the means and 95% confidence intervals for all SHOs in each of the 10 areas evaluated. The results show improvement in all 10 areas but statistical significance was only reached in eight of the 10 areas.

The most improved scores have been in the areas of clinical experience offered in the post, quality of supervision and responsibility in the post and feedback on performance. The changes did not reach statistical significance in the areas of compliance with regulations on junior doctors' hours and quality of accommodation and catering.

DISCUSSION

Our experience of this routine trainee satisfaction survey leads us to recom-

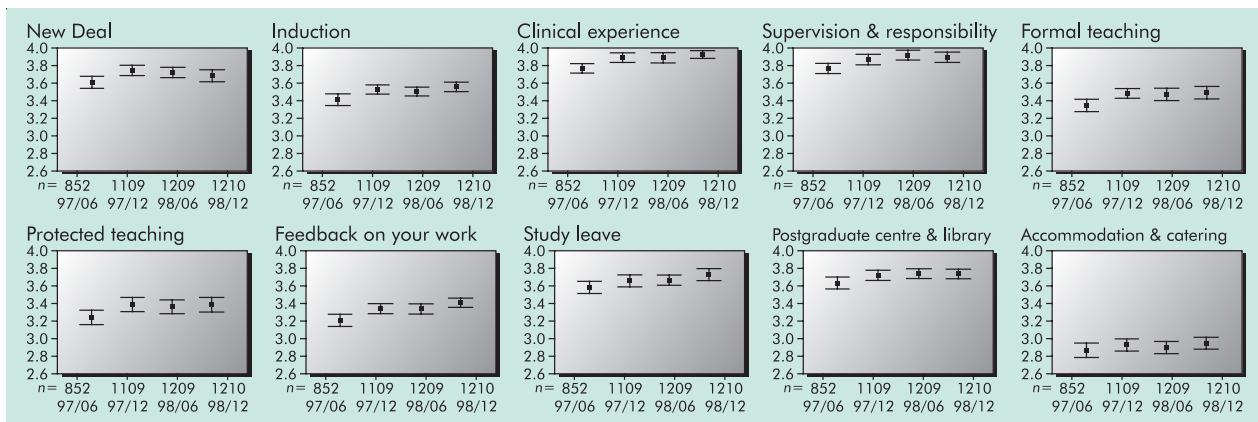


Figure 2. Means and 95% confidence intervals for all senior house officers

mend it as a way to collect information to advise trainers how they are doing in the eyes of their trainees. We think the system promotes regular review by training consultants of their educational practice and stimulates them to improve it.

The rising response rates (from 63% to 80%) are encouraging. The best responses come from units where the postgraduate centre manager has developed a robust system of reminding the SHOs of their duty to complete the forms, which is explained to them at induction. Several managers have used checklists of all SHOs in their hospital, and have repeatedly chased up all these doctors until their forms have been returned. One enterprising clinical tutor personally organized a meeting for all the SHOs filling in their evaluation forms at a dedicated meeting in the postgraduate centre.

The study supports the conclusion of Paice et al (1997), that SHOs perceive their educational environment to be improving in the 1990s. We have gone further by repeating surveys every 6 months, evaluating 10 categories (rather than the six measured by Paice), surveying all SHOs in the region rather than a sample and by subjecting our results to statistical analysis for validity. The 1536 SHO posts in the West Midlands represent 10% of the total in the UK.

We were disappointed to find no significant improvement in perceived compliance with junior doctors' hours regulations and in accommodation and catering, despite the heroic efforts of the Regional Task Force to achieve nationally agreed standards. Since 1998 the deanery has delegated monitoring of accommodation and catering for resident doctors in the trusts to a trained facilities accreditation officer who visits all trusts in the region annually to check compliance with the required standards.

The improvements in the educational aspects of the SHOs' experience are, we believe, the result of six initiatives established over the last 3 years:

1. Clear standards defining good SHO training have been set by the deanery for the guidance of clinical tutors, programme directors and trainers

2. The post evaluation questionnaire, based on these standards, encourages trainers to concentrate on the areas to be scored. Assessment represents a statement of what is important and it is natural to work to improve activities that are to be assessed
3. The associate postgraduate dean provides feedback on the results of the evaluations to clinical tutors for local action. This allows recognition by those responsible of areas that need improvement and encourages continuation of activities that are highly regarded by SHOs
4. The deputy postgraduate dean has led 'teaching the teachers' training sessions for consultants in the last 3 years. Over 400 consultants have attended one or more day courses and many have registered for the University of Dundee medical education certificate or diploma courses funded by the deanery. Particular emphasis has been placed on how to give constructive feedback, provide effective educational supervision and organize high quality bleep-free training sessions
5. The postgraduate dean's office sends monitoring teams to every Trust which trains SHOs in the West Midlands on a 2-3-year rolling programme. At these visits we identify and encourage good practice and provide advice to trainers on how best to improve areas of weakness. Feedback is given immediately verbally and later in a structured report produced by the deputy postgraduate dean
6. Regional study leave guidelines are used to advise clinical tutors and trainees on how study leave is to be provided.

Already we publicize the response rates from each of the trust hospitals,

which has probably helped to improve the response rates. We have not so far made public the evaluations themselves, although some believe we should produce SHO training 'league tables'. We have preferred to use our own information to target constructive feedback to trainers in individual trusts, rather than a 'name and shame' approach. This policy is still under debate in this deanery at the present time. One modification under consideration is to publish full anonymized evaluation results, identifying only each trust unto itself. So an individual trust may know its own position in the ranking, but not everyone else's.

CONCLUSION

We have set up a reliable system for regular monitoring of all the West Midlands SHOs' satisfaction with their education, which allows the deanery to give regular feedback to consultants, designed to help them to be better trainers.

We have demonstrated an overall improvement in SHOs' perceptions of their education in the West Midlands over the last 2 years. The results encourage us to continue reforms already set in place and to concentrate on the New Deal and accommodation and catering as areas of priority. **HM**

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SCOPME (1992) *Creating a Better Learning Environment in Hospitals. Teaching Hospital Doctors and Dentists to Teach*. Standing Committee for Postgraduate Medical and Dental Education, London

SCOPME (1994) *Teaching Hospital Doctors and Dentists to Teach. Its Role in Creating a Better Learning Environment*. Proposals for consultation — full report. Standing Committee for Postgraduate Medical and Dental Education, London

KEY POINTS

- Computerized analysis of a simple questionnaire form enables helpful deanery monitoring of trainees' satisfaction with their training.
- In the West Midlands region there has been a statistically significant improvement in senior house officers' perceptions of their education during the last 2 years.
- Feedback to trainers on trainees' views of their training can thus be provided to allow them to address perceived shortcomings.
- We are encouraged to continue the reforms already in place and to concentrate on the New Deal and accommodation and catering issues to achieve further improvements.