The Ulster Medical Journal, Volume 60, No. 1, pp. 75 – 79, April 1991.

Surgical training posts in Northern Ireland: assessment by surgeons in training

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Accepted 9 July 1990.

SUMMARY

Northern Ireland has one of the largest surgical training programmes in the United Kingdom. The surgical trainees' assessment of the quality of training provided has been collated prospectively since 1983, and provides a useful insight into the strengths and weaknesses of the programme, as well as the training value of individual posts.

The overall quality of clinical training in surgery was considered to be well above average, but some registrars felt that supervision of operative surgery could be improved. Clinical research was considered to be of average quality in the teaching hospitals but below average in district general hospitals. In the current climate of restriction of the number of training posts in general surgery, the views of the trainees should not be neglected in assessing which posts are best suited for training.

INTRODUCTION

A rotational surgical training scheme was set up in Belfast over 35 years ago. This has evolved to include a total of about 100 trainees in the senior house officer, registrar and senior registrar grades. The training scheme encompasses all 19 hospitals in Northern Ireland that provide surgical services. The Surgical Training Committee oversees the training undertaken in all the surgical senior house officer posts in Belfast as well as several posts in other hospitals, and all of the registrar and senior registrar posts throughout Northern Ireland. This includes not only general surgical trainees, but also those in the surgical specialties (fracture and orthopaedic surgery, plastic surgery, neurosurgery, paediatric surgery, cardiothoracic surgery, urology) and in the Professorial surgical units. Cross-rotational movement between specialties is possible at senior house officer and registrar levels, and in some instances also in the senior registrar grade.

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Substantive appointments in the registrar grade are for two years and senior registrars receive a four year contract in the first instance, which may be extended on an annual basis. Senior house officers have a one year contract initially and must reapply and compete for a place in the scheme on an annual basis. The schedules for annual posting are drawn up by the Surgical Training Committee, and an attempt is made to allocate training posts in line with the career aspirations of trainees. In 1983 the committee approved the introduction of continuous assessment of training standards in all surgical units by the trainees themselves. The results from the first four years of this audit are presented.

METHOD

At the end of each posting a questionnaire was sent to each trainee of registrar or senior registrar status. The questions were scored according to quality of training into five categories (unsatisfactory, below average, average, above average or outstanding). The data was collected by one of the two trainee representatives on the committee and was subsequently analysed on a CP/M based statistical package (AMSTAT).

RESULTS

There were between 53 and 60 trainees on the registrar/senior registrar rotation per year during the four years studied. Some of the postings in surgical specialties were of three or six months duration. A total of 227 questionnaires were sent to 104 registrars and senior registrars, of which 195 were returned. It was not possible to contact some of the overseas trainees who had left Northern Ireland at the end of their contracts (as many as nine in one year).

Table I shows the assessment of various aspects of registrar and senior registrar training. Table II shows the assessment of the teaching and the district general hospitals in the rotation. In the first two year period (1983–1985) the overall scores were rather higher than in the subsequent two years. As the survey progressed, the response rate improved from 57% to 82% in 1984–85, falling to 71% and 76% in subsequent years.

TABLE I

Assessment by Registrars and Senior Registrars

	Registrar responses (n = 123)			*Senior Registrar responses (n = 72)*		
	Unsatis / below average	*Average / above average*	*Out-standing*	*Unsatis / below average*	*Average / above average*	*Out-standing*
	%	%	%	%	%	%
Ward experience	10	62	28	5	67	28
Operative experience	19	54	27	8	56	36
Ward supervision	22	57	21	17	61	22
Operative supervision	27	50	23	17	64	19
Teaching	34	53	13	21	66	13
Meetings	37	49	14	18	65	17
Study time	27	48	25	42	44	14
Research in progress	49	36	15	33	53	14
Encouragement to do research	38	46	16	35	50	15

TABLE II

Assessment of teaching and district general hospitals. (General surgery only)

	Teaching hospitals			*District general hospitals*		
	Unsatis / below average %	*Average / above average* %	*Out-standing* %	*Unsatis / below average* %	*Average / above average* %	*Out-standing* %
Ward experience	0	57	43	5	67	28
Operative experience	0	57	43	16	42	42
Ward supervision	8	51	41	19	65	16
Operative supervision	11	57	32	28	46	26
Teaching	22	73	5	37	47	16
Meetings	22	59	19	59	36	5
Study time	24	68	8	45	35	20
Research in progress	40	49	11	77	21	2
Encouragement to do research	35	51	14	68	30	2

Table III shows the assessment by general surgical trainees undertaking rotational training in specialist surgical units (66 responses). Their views were remarkably consistent with those received from specialist senior registrars in the same units.

TABLE III

Assessment by general surgical trainees rotating through specialist units

	Unsatis / below average %	*Average / above average* %	*Out-standing* %
Ward experience	11	62	27
Operative experience	21	64	15
Ward supervision	18	59	23
Operative supervision	29	51	20
Teaching	21	59	20
Meetings	23	57	20
Study time	21	64	15
Research in progress	29	54	17
Encouragement to do research	30	55	15

Only 62% of trainees had discussed the progress of their training in individual posts with the consultant in charge of those units. Fifty four percent of trainees offered specific comments about the units in which they had worked; many of these were complimentary and almost always constructive. Two comments were particularly common — the need for more direct supervision of operative surgery by consultants, and the desire for better organisation of research within individual surgical units. A total of 21 trainees in the four year survey had filled research posts either as joint appointments (university/NHS) or on research fellowships.

Encouragement to perform research was scored as average (38%), above average (28·5%) or outstanding (33·5%) by these individuals.

DISCUSSION

Considerable interest in surgical training has been aroused in recent years by discussions on the format of the Fellowship examination and the imminent introduction of the 'career registrar' grade. Surprisingly, little attention has been paid to the assessment of the actual quality of surgical training currently being provided within the United Kingdom. Dehn[1] has surveyed registrars undertaking full time research posts and found that 24% felt that supervision of their research was below average. In the present study a comparable proportion of registrars expressed disappointment with both the encouragement to perform research and the actual research in progress. There were 21 responses from trainees engaged in full time research, 38% of whom felt that the encouragement to perform research was average. The remaining 62% of trainees felt that research encouragement was above average or outstanding, while no trainees felt that it was below average. However, 33% of research fellows felt that the quality of their actual research in progress in the department was below average, a figure very close to that reported by Dehn.[1] Surgeons remain obsessed with the concept that 'research' is in some way a measure of surgical ability,[3, 4] and this anxiety is not unique to Northern Ireland.[2]

In a small survey of 25 post-fellowship registrars in the Mersey region, Diggory found similar results to our own.[2] Training in patient management was considered good by 56% of registrars, adequate by 25% and inadequate by 18% (our own figures including pre-fellowship trainees were 62%, 28%, 11% respectively). Diggory considered that operative experience and in particular operative supervision was sometimes inadequate. Registrars in the Mersey region seem to express the same anxieties as our own. Steps are being taken to initiate improvements in supervision of the minority of junior trainees where this seems to have been deficient. This survey did not distinguish between the supervision of elective and emergency cases. Steele et al found that 58% of Scottish trainees felt that there was too little supervision of operative surgery, and that 21% of respondents at times felt 'out of their depth' when performing emergency cases.[5] This worrying situation seems less common in North America.[6]

It has to be accepted that trainees will always express a desire for more experience and supervision in operative surgery, and this must be balanced against the need to complete a reasonable number of cases in the time allotted to each operating list. Junior surgeons will inevitably operate more slowly and this does not encourage consultants to assist them when operating time is limited. Clearly a more detailed analysis of the amount of supervised operating performed by surgical trainees is required.

The clinical training of senior registrars is more closely monitored by the Specialist Advisory Committees in their respective surgical specialties than is the training of other grades of surgeons, and their responses indicate that the clinical training they receive is of excellent quality. Apparent inadequacies in the 'academic' aspects of senior registrar training require further evaluation. Middle grade registrars as a group were rather less satisfied that the senior registrars. While the

posts provided good experience, many felt that supervision both on the ward and in the operating theatre was unsatisfactory. Junior registrars (those at the peri-fellowship stage) were usually adequately supervised and gained satisfactory experience, but over 22% felt operative supervision should be improved. Many trainees felt that there was insufficient time available for personal study and that ward meetings and postgraduate teaching should be improved.

General surgical trainees expressed approval of their training in the surgical specialties. Though they occasionally commented that these posts offered less in the way of operative experience, the scoring suggested that training was of an acceptable standard. The fact that 38% of trainees did not (or felt they should not) discuss their performance with their trainers was disappointing. Perhaps introduction of a compulsory two-way discussion between the trainee and his/her trainer on the completion of each period of training should be considered.

The results of this survey have been presented to the Northern Ireland Surgical Training Committee and consultant surgeons have been sent an overall numerical assessment of the 4 years responses for all units but with only the score for their own unit identified. It will be interesting to assess in future years whether this information has had any beneficial effect on the trainees' assessment of the quality of surgical training. In responding to the questionnaire, trainees were asked to make judgements around a hypothetical average. Clearly they have little experience by which to gauge what is average, especially since few have worked outside Northern Ireland. Nevertheless, only a minority of responses were scored 'average', clear opinions being demonstrated, perhaps more in comparison of the training value of the post with the expectation of what is 'adequate'. We have found this prospective evaluation by trainees a useful adjunct in the audit of training standards. The rotational training scheme has been well received, though significant deficiencies have been indentified. In particular, the quality of supervision of operative surgery should be critically assessed by trainers. It is a useful stimulus for a consultant surgeon to know that it is not just his registrar whose performance is being judged.

We are grateful to the members of the Northern Ireland Surgical Training Committee for their co-operation with this survey and to the trainees on the training scheme who have completed the questionnaire. Professor A D Roy and Mr A J Wilkinson played a vital part in the introduction of this assessment.

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