ABSTRACT

Does specialty training prepare doctors for senior roles? A questionnaire study of new UK consultants

Aim

To measure new consultants' perceptions of their preparedness for different clinical and non-clinical aspects of the role of consultant.

Design

A cross-specialty questionnaire was developed and validated, containing items asking how well specialty training had prepared respondents for the role of consultant in a number of clinical and non-clinical areas. Responses were on a five-point Likert scale with a 'Not relevant/no opinion' box, and one free text section. Analysis was carried out on ten scales derived from the questionnaire items through exploratory factor analysis.

Participants

Consultants who had completed their specialty training in the North of England between 2004 and 2009 and had held a substantive consultant post in the region for less than five years were sent questionnaires in late 2009.

Results

The effective response rate was 70.6% (211/299). Ten factors reflecting areas including clinical skills, communication skills, team and resource management were identified. Overall, higher scores were observed on factors relating to 'providing care for individual patients' rather than 'having responsibility for the system of care'. The lowest scoring factors related to resource management and supervision, with mean scores falling below the scale mid-point. There were no significant differences between specialty groups, or on any demographic variables.

Conclusions

A questionnaire to measure new consultants' perceptions of how well their specialty training had prepared them for practice was developed and validated. Findings were similar across specialties, suggesting that training programmes in all areas need to integrate higher level management skills into their curricula alongside the development of clinical expertise.

MAIN TEXT

1   INTRODUCTION

The transition from trainee to senior grade doctor (specialist registrar to consultant, or resident to attending) is a challenging and stressful stage in a doctor's career.[1-5] The consultant role in a modern healthcare setting involves greater responsibility in areas such as service planning, staff management, managing resources and healthcare governance, and doctors have reported feeling less prepared for these non-clinical aspects of the role than for the clinical aspects.[4-10] Recognition that doctors have roles beyond clinical care, for which they may not be prepared by curricula, is not new,[11,12] but is an area of concern which has still not been fully resolved.

The involvement of doctors in the organisation of services is seen as important if progress is to be made in providing high quality care.[13,14] A stronger leadership role for doctors in key management practices has been linked to better health care and higher productivity,[15] and lack of involvement of doctors in the management and leadership of an organisation can be linked to failures in care.[16] Key factors identified in these failures include inadequate medical leadership, poor communication, disempowerment of staff and patients, and a disconnection between staff and managers.[17] The complex nature of health care organisations as professional bureaucracies requires leadership at different levels, not just at the top.[18]

Internationally, it is recognised that the responsibilities of doctors are changing —with increased team-working and accountability for a system that delivers healthcare to the population as well as for care of the individual patient.[18,19] For example, in the UK, since the early 1980s doctors have been required to become more accountable for making decisions on resource allocation. These changes run counter to the cultural values usually ascribed to doctors i.e. a strong sense of clinical autonomy and accountability to individual patients,[20] and may have created tensions between doctors and managers.[18,21] The experiences of clinicians who have made the transition to management roles indicate an essential difference in professional identity,[22] and the professional status of physicians comprises values and norms different to the economic goals of hospitals.[23]

The first, qualitative, phase of the current study found that trainers, specialist trainees and curricula do not seem to fully acknowledge the diversity and complexity of the role of the modern medical consultant.[6] This earlier work is outlined in Box 1.

Box 1 Summary of qualitative study

The aim of the qualitative study was to determine the extent to which specialty training provides doctors with the skills they require when they become consultants.

Face-to-face interviews with 32 final year specialty trainees and 20 telephone interviews with newly appointed consultants explored expectations of the consultant role and their own preparedness. Issues were triangulated with telephone interviews with 12 medical managers who had an overview of new consultants' performance.

There was agreement that clinical work was the area with the highest perception and observation of preparedness, with some adjustment needed to increased responsibility, including for decision-making, prioritisation and delegation. Understanding of, and adjustment to, a more organisational and management role was needed, in particular with regard to designing, developing and changing services. There was anticipation of poor preparedness for people management, e.g. addressing poor performance, and new consultants felt poorly prepared for providing feedback to trainees. Other areas of concern included dealing with complaints, time management and job planning. Some specialty trainees lacked full appreciation of all aspects of the consultant role and exposure to the full role varied e.g. opportunities to attend management meetings and exposure to complaints procedures.

The second phase of the work sought to further explore whether UK specialty training prepares consultants fully for the new roles they will play in a modern healthcare setting. The study was carried out in one region of the UK - the Northern Deanery (deaneries are organisations within the structure of the UK National Health Service [NHS] responsible for postgraduate medical and dental training at regional level. The Northern Deanery covers the north east of England and parts of

Cumbria to the west). Specialty curricula are set at a national level, although delivery may vary at a local level.

The aim was to establish the perceived preparedness, for a number of aspects of practice, of a larger group of new consultants working in a range of specialties. A questionnaire was used as it allows data to be gathered from a larger sample. The objectives of this phase of the study were:

- to develop and validate a measure of new consultants' perceptions of their preparedness for practice

- to compare preparedness for different aspects of the role

- to compare the preparedness of different subgroups through implementation of this tool.

2 METHOD

2.1 Questionnaire development

A cross-specialty questionnaire was developed from themes generated from the qualitative work, from earlier literature and through consultation with experts. The items were designed to cover six areas which were identified as important: clinical skills, communication, teaching and supervision, management and team-working, healthcare governance and general professional aspects of the role of consultant. The aim of the questionnaire was to produce aggregated scales to measure preparedness for different areas of practice.

The questionnaire was pre-tested with an opportunistic sample of twelve newly appointed consultants from a range of specialties working in the Northern Deanery. This resulted in changes to the wording of five questions and the addition of three more questions. A revised version of the questionnaire was then piloted by post with a larger sample of thirty newly appointed consultants selected randomly from the full sample. As this resulted in no further changes to the questionnaire these responses were included in the final analysis.

The final version of the questionnaire comprised 68 items which asked respondents how well their specialty training had prepared them for the role of consultant in each of the six areas. Response to all items was on a five-point Likert scale with anchors at each end only - from 1 ('not at all well') to 5 ('extremely well'). A not relevant/no opinion box was also included. A free text section enabled respondents to provide additional comments about their specialty training or recommendations for improvement.

2.2 Participants

The questionnaire was distributed by post to 323 consultants who had completed their specialty training in the Northern Deanery between 2004 and 2009, and had been working in a substantive consultant post in the region for less than five years. Participants were recruited from consultant lists matched against Northern Deanery databases for date of completion of training. Two screening questions were included in the questionnaire to ensure that the responses came from the target sample (i.e. location of specialty training and length of time in post). The questionnaire was distributed in late 2009 and was followed up by two reminders, two weeks and four weeks after the initial distribution. The questionnaires were returned directly to the researchers and had no identification code, thus ensuring anonymity of responses.

2.3 Data analysis

2.3.1 Validation analysis

To ensure the construct validity of the questionnaire, the proportions of missing data per items were examined (high levels of missing data suggesting that an item is inappropriate or unclear), and an exploratory factor analysis conducted to establish how items associated with different components of practice relate to each other. Reliability statistics (Cronbach's alpha) were calculated for the resultant scales. Because the questionnaire is measuring subjective preparedness, and there are no adequate indicators of actual preparedness to indicate actual preparedness, no analysis of predictive or concurrent validity is possible.

2.3.2 Exploratory analysis

Descriptive statistics for the different factors were examined to identify areas of high and low perceived preparedness. Comparisons between specialty groups, male and female doctors, and those qualified in the UK and elsewhere were conducted using nonparametric significance tests.

3 RESULTS

Of the 323 questionnaires distributed, 24 were returned undelivered due to incorrect addresses. 211 questionnaires were completed (65.3% of the total), giving an effective response rate of 70.6%.

3.1 Demographics

The demographic breakdown of the sample is given in Table 1. The majority of responses were from men (62.6%, n=132; 37.4%. n=79 from women), and most were in the 35-44 age group (81.5%. n=172). The majority described themselves as white (65.8%, n=139, of whom 123 described themselves as 'white British'). Only one reported that they had a disability.

Respondents had completed their basic medical education in fourteen countries, most in the UK (68.7%, n=145), followed by India (19%, n=40). To consider any effects of place of undergraduate study, the reported countries were re-coded to compare UK (n=145), European Economic Area (n=13), and other international graduates (n=47).

While respondents were selected on the basis of training in the Northern Deanery, 14.7% (n=31) reported they had also undertaken some training in another deanery. Several had completed at least some of their specialty training in part time hours (15.7%, n=33), and 29.3% (n=60) had completed a doctorate (MD or PhD) during their training. Respondents had been in a substantive consultant post for between one month and five years (mean=30.6 months).

Table 1. Sample demographics

	Number	Percent (of 211 responses)
Gender		
Male	132	62.6%
Female	79	37.4%
Age group		
Under 35 years	15	7.1%
35-44 years	172	81.5%
45-54 years	19	9.0%
Not disclosed	5	2.4%
Disability		
Reported disability	1	0.5%
No reported disability	210	99.5%
Country of medical qualification (n=205)		
UK	145	68.7%
EU non-UK	13	6.2%
Place of specialty training		
Northern Deanery	180	85.3%
Northern Deanery +other deanery	31	14.7%
Ethnicity		
White: British	123	58.3%
White: Irish	6	2.8%
White: other	10	4.7%
Mixed: other	1	0.5%
Asian: Indian	40	19%
Asian: Pakistani	2	0.9%
Asian: Chinese	2	0.9%
Asian: other	2	0.9%
Black: African	5	2.4%
Other ethnic background	4	1.9%
Not disclosed	16	7.6%
Completed MD/PhD during specialty training (205 responses)		
Completed MD/PhD	60	28.4%
Did not complete MD/PhD	145	68.7%
Completed specialty training full-time or part-time		
Full-time	177	83.9%
Part-time	9	4.3%
Full-time + part-time	24	11.4%

3.2   Representation of different specialties

The questionnaire asked respondents to provide their clinical speciality as a free text response. Responses ranged from the general (e.g. medicine, surgery) to specific subspecialties (e.g. neonatology, hepatology, neuroradiology). To allow comparisons between groups, these were re-coded into broad specialty groups providing sufficient numbers for statistical comparison. These groupings should meaningfully aggregate different training experiences. Frequencies of different specialty groups, and their gender profiles, are given in Table 2.

Table 2 Frequencies of specialty groups, and gender profiles

	Frequency	Percent of sample	n female	n male	% female	% male
Medicine*	69	33.0	26	43	37.7	62.3
Surgery**	34	16.3	4	30	11.8	88.2
Psychiatry/mental health	32	15.3	15	17	46.9	53.1
Anaesthetics	25	12.0	8	17	32.0	68.0
Radiology	15	7.2	5	10	33.3	66.7
Paediatrics	14	6.7	9	5	64.3	35.7
Obstetrics and gynaecology	12	5.7	5	7	41.7	58.3
Lab Medicine	8	3.8	6	2	75.0	25.0
Total	211	100.0			37.0	62.1

* including emergency medicine, acute medicine, care of the elderly, dermatology, diabetes & endocrinology,
   gastroenterology, palliative medicine, renal medicine, respiratory medicine, rheumatology
** including general surgery, orthopaedics, plastic surgery, ENT

3.3   Validation analysis

3.3.1   Use of scale and missing data

There were no missing data arising from items not being completed, and low numbers of 'not relevant' responses (across all items for all respondents, there were 396 'not relevant' responses – less than 2% of the total). Table 3 lists those items for which more than 5% of responses were 'not relevant'. Together these account for 61% of all such responses. Within these there is over-representation of lab medicine (15% of responses compared to 4% of sample), and radiology (19% compared to 7%), and under-representation of medicine and surgery (respectively 18% of responses and 33% of sample, and 3% of responses and 16% of sample). This suggests that the items are less likely to be relevant to those doctors who do not have constant patient contact.

These figures indicate content validity, as items are felt to be relevant to the majority of respondents. The majority of the 68 items showed use of both ends of the scale, indicating discriminant validity. While there was a negative skew with some items having few ratings at 1 or 2 (indicating preparedness), this is not considered a problem in a sample who have completed training.

Table 3. Items which had more than 5% of responses 'not relevant'

Item	Number of 'not relevant' responses	% of participants	% from lab or radiology (5.5% of sample)
Constructing and supervising procedure lists e.g. operating lists, bronchoscopy lists	82	39%	13%
Leading a post take ward round	71	34%	30%
Organising and managing clinics	39	19%	41%
Managing long term conditions	22	10%	36%
Negotiating a complex referral to another specialty	15	7%	80%
Involving patients or the public in evaluating or changing services	12	6%	25%
Total	241		

3.3.2 Factor analysis

Principal components analysis (PCA) was carried out in SPSS v17. 'Not applicable' responses were treated as missing data in this analysis.

An initial analysis identified a low Kaiser-Mayer-Olkin statistics of sampling adequacy (KMO) of 0.677. Examination of KMOs for individual items identified one (for 'Clin_constructing procedures') as particularly low at 0.366. Repeating the analysis with this item omitted increased the overall KMO to 0.846, defined as 'good' according to Field,[24] but there were multiple cross-loadings and spurious factors consisting of just one item.

Elimination of cross-loading items resulted in a 10 factor solution (eigenvalues>1), with a KMO of 0.867, and communalities ranging from 0.607 to 0.888, meaning that between 61% and 89% of the variance in these items is explained by the retained factors. No cross-loadings with differences of less that 0.3 were present in the final factor structure. The KMO and communality statistics are taken to be indicative of a dataset appropriate for factor analysis, and are preferred as an indicator of appropriateness than the ratio of participants to items.[25]

The solution is summarised in Table 4, which gives the items with a loading greater than .40 (i.e. accounting for more than 16% of variance of the factor), and the variance explained for each factor. The solution explains 79.7% of the total variance.

Table 4 Factor labels, items loading >.40 and variance explained

Factor number	Factor label	Items loading >.40	Variance explained
1	Supervision	The role of the Clinical Supervisor The role of the Educational Supervisor Providing feedback to trainees Raising concerns about a doctor's performance Managing concerns about a doctor's performance Supporting a poorly performing doctor	14.2
2	Resource management	Designing new services Managing resources effectively Making decisions about allocating resources Inputting into a business plan Managing NHS targets Understanding the structure, financing and operation of the NHS Changing the way a service is run	13.6
3	Clinical interactions	Presenting clinical cases to colleagues Communicating results of investigations to colleagues Communicating with colleagues in the wider health community Dealing with administrative tasks e.g. clinical letter writing Leading a post take ward round Negotiating a complex referral to another specialty	10.4
4	Teamwork/person management	Delegating to team members Leading a team Managing change within a team Managing conflict within a team	6.6
5	Time management	Time management Prioritising clinical and non-clinical work Taking on an appropriate amount of new opportunities as a new consultant Achieving good work/life balance	6.5
6	Audit	Carrying out an audit Completing an audit cycle leading to a change in practice Supervising audit	6.2
7	Clinical skills	Selecting appropriate investigations Diagnostic skills Interpreting results of investigations	6.1
8	Communication skills	Communicating with patients and relatives Communicating with patients who you find challenging Taking leadership when breaking bad news	5.4
9	Supporting activities/skills	Being involved in research Use of IT for patient care Use of IT for supporting professional activities (SPAs)	5.4

Table 4 Factor labels, items loading >.40 and variance explained

Factor number	Factor label	Items loading >.40	Variance explained
10	Teaching	Lecturing Small group teaching Demonstrating, explaining or teaching in the work setting	5.3

3.3.3 Descriptive statistics

Table 5 presents the descriptive statistics for the factors as calculated from the simple aggregation of the items shown in Table 4. Each aggregated scale shows internal consistency, with Cronbach's alpha for each factor > 0.8. As eight of the ten factors were scored at or above the mid-point, the results tended toward preparedness, although several were nearer the neutral mid-point than the upper end of the scale. Two factors had means (and 95% confidence intervals) below the mid-point. While not at the bottom of the scale, these factors indicate relatively low preparedness.

Table 5. Un-weighted mean scores for items in table 3 (factors sorted in order of descending mean score)

Factor number	Factor label	N	Minimum	Maximum	Mean	Std. Deviation	95% confidence interval
7	Clinical skills	211	2.67	5.00	4.53	.50	4.46-4.60
8	Patient communication skills	205	1.67	5.00	4.20	.68	4.11-4.30
3	Clinical interactions	211	2.33	5.00	4.09	.60	4.01-4.17
6	Audit	211	1.67	5.00	4.02	.81	3.90-4.13
10	Teaching	211	2.00	5.00	3.82	.76	3.71-3.92
4	Team management	211	1.00	5.00	3.47	.76	3.36-3.57
5	Time management	211	1.00	5.00	3.32	.85	3.20-3.43
9	Supporting activities/skills	209	1.00	5.00	3.28	.96	3.15-3.41
1	Supervision	210	1.00	5.00	2.69	.88	2.57-2.81
2	Resource management	211	1.00	5.00	2.27	.87	2.15-2.39

Overall, the factors with means at the upper end of the scale were those which may be seen as related to 'being a clinician' rather than 'being a manager'; that is, the skills which are part of the

standard course of practice as a trainee, compared to those which are only part of a consultant's role.

At the lower end of the scale the factors relating to resource management and supervision had mean scores below the mid-point. Time management and 'supporting activities' were also quite low. Interestingly teaching is rated relatively high compared to supervision, suggesting it is the management, and dealing with concerns about poor performance, rather than strictly the educational component, for which the respondents feel under-prepared.

3.3.4 Differences between subgroups

Further analysis compared the Factor scores (calculated by the regression method, so taking account of the weighted contribution of each item) between different sub-groups: specialty group, sex, age, country of primary medical qualification, whether trainees had trained full or part time, or whether they had completed a doctorate. Non-parametric methods were used because of the differences in sample sizes. The Bonferroni correction for multiple comparisons was applied to reduce the likelihood of a type I error (false positive) – this moves the threshold for statistical significance to reflect the 'family' of tests being carried out, in this case the ten factors. Results were therefore considered to be statistically significant if $p < 0.005$ (rather than 0.05). No results were significant at this level, and the conclusion therefore is that the factor scores are consistent across the sample sub-groups.

Respondents had been in a substantive consultant post for between one month and five years (mean=30.6 months). A negative correlation between this variable and the 'Teaching' factor was statistically significant, albeit with a small effect size (rho=-0.259, $p<0.01$). This suggests the respondents felt less prepared for teaching the longer they had been in their consultant post. No other correlations were statistically significant (all other rho<0.2).

3.3.5 *Free text responses*

The free text responses in Box 2 illustrate how preparedness for some of these factors is described by some respondents, provide some suggested improvements to training and give an indication of some trainee attitudes towards training.

Box 2 Illustrative free text responses

Experiences of training

I think my clinical training in diagnostic and clinical management both of patients and the resources of the NHS has been excellent. I have felt that education in managing complaints/difficult patients and particularly problematic colleagues has been poor. In addition, the managerial aspects of putting together business plans, and the organisation of the NHS, are poorly covered. I had to attend extra courses to gain some knowledge in these areas. (CQ10)

Training was good in day to day work management in [specialty] with good on call experience. I feel training was lacking in some areas such as dealing with complaints, setting up new services, business plans, etc. Apart from supervising junior trainees when I was a final year SpR, I did not feel that I was treated any different and would have benefited from more involvement in managerial areas as far as possible. (CQ185)

The system of rotating around hospitals generally provided good and varied clinical training. However it made it difficult to become involved in some of the non-clinical aspects of the job, particularly designing new services, initiating/managing change etc. (CQ77)

Suggested improvements to training

A major weakness of the otherwise good training was the poor involvement in the business management side. Even in my last year I was never invited or involved in any business meetings, it was more important for the SpR to keep up the service. I would suggest that SpRs should learn the business side of the NHS organisation as they go along like they do with their teaching skills. I also suggest that SpRs should have more formal teaching in education whether it is as a teacher or clinical supervisor. Also the risk management issues and implications could be better taught. However I had an excellent clinical training. (CQ120)

As my consultant role evolves I realise that my understanding of how the 'system' really works and who I need to speak to, to make things happen is not as good as I thought it was. The 'non' clinical managerial roles now seem to outweigh the clinical tasks on which I focused during training. These aspects of the role should be an earlier part of specialty training. (CQ74)

Clear guidance on SPA/job planning would have been very helpful (e.g. from BMA rep). Managing complaints - training needed. Managing poor performing juniors - need advice/training (CQ93)

I think more specific time on day to day management of a service would help - i.e. prioritising OP [outpatient] referrals, how to change/set up a service, tying in service with targets, responding to complaints. Need more on NHS structure (national and local) earlier on rather than just in final year management course - which is good, but almost too much new to take in at each stage (CQ190)

Encourage greater exposure to management meetings in final 12 months of training (CQ42)

All final and pre-final registrars need training in follow-up of their own patients for a year with consultant supervision/support in outpatient setting. (CQ26)

Attitude towards training

The most important aspect of specialty training in my view remains clinical especially for specialties like surgery. If you can't operate you can't do the job! (CQ111)

In some areas my negative choices may reflect a lack of personal motivation in seeking at knowledge / experiences. I think these areas MUST be part of the trainee's curriculum. (CQ79)

4   DISCUSSION

This paper has presented the development and validation of a questionnaire to assess new consultants' perceptions of the degree to which their specialty training prepared them for work as a consultant. Ten areas of practice were derived from a factor analysis, with a trend towards greater

preparedness for more obviously clinical tasks, and less preparedness for management tasks. No differences were found between specialty or demographic groups.

These findings supports those of earlier research in individual specialties, regarding perceptions of higher preparedness for clinical than non-clinical aspects of the consultant role.[4-10] In this study, the areas in which respondents felt more prepared may be seen as those relating to 'providing care for individual patients' rather than 'having responsibility for the system of care'.

Lack of preparedness for some aspects of a senior management role (such as resource management – related to finance and service development) may be expected to an extent as there will be fewer opportunities to practise those aspects in training. However, even in some elements of practice that have traditionally been part of the consultant role (for example, time management and supervision), new consultants did not rate their preparedness highly. The results do not necessarily mean that the new consultants are *un*prepared or lack competence, and the mid-point of the scale around which the lower means clustered was neutral. However, if trainees complete their training even feeling *under*prepared for some, even minor, aspects of the job they have been trained for, there may be concerns about elements of their training.

The strength of the current study is its cross-specialty scope, large sample size and a high response rate. Most other studies on the transition from specialist trainee to medical specialist have been limited by the fact that they report on transitions in highly specialised medical disciplines, which hampers their transferability to a broader range of disciplines.[26] A limitation of this study is that it provides only the perspective of newly appointed consultants themselves. However, whilst perception of preparedness may not be indicative of actual ability, it does have a potential effect on the doctors' confidence to take on, or even avoid, certain aspects of the role. A further possible limitation is that the study was conducted in one area of the UK only. In the UK curricula are nationally set through Royal Colleges and the GMC; while there may be national differences there is no reason to suggest these may greater than local differences. However, generalisation to other countries and other healthcare systems cannot be assumed. Since these respondents started their medical training, changes have been made to curricula at undergraduate

and postgraduate level, and it may be that repeating this study in a few years would find greater preparedness for managerial responsibility.

Internationally many organisations and governments have recognised that doctors need a set of skills greater than those required to look after the health of individual patients. It has been identified that involving doctors in management and leadership is a crucial factor contributing to improvement in healthcare organisations and there is a need to develop these skills.[13-16,18,20,27] This study, however, demonstrates that doctors in the UK's NHS, in all specialties, feel less prepared by their training for these broader aspects of the role. At the same time policy changes[28] and budgetary restrictions require clinicians to be involved in decision-making processes far more centrally.

While free text responses suggest that there are implications for trainees themselves in terms of their prioritisation and pro-activeness, the capacity to gain non-clinical skills needs to be seen as core by trainees and trainers alike, and the findings of this study clearly have implications for those responsible for medical training.

 In the UK, the General Medical Council has already responded to the changing nature of the role of doctors in healthcare in its regulatory standards, for example by making explicit the role of 'Doctor as Leader' within its core statement of *Good Medical Practice*,[29] setting out the wider responsibilities of doctors in draft guidance on *Good Management Practice*[30] and issuing a new guidance document on leadership and management for all doctors.[31] Elsewhere in the world doctors are being encouraged to take on broader leadership roles. Denmark has been noted for its explicit aim to engage doctors in leadership roles and its efforts to provide training and support at postgraduate and consultant level.[18] In Canada, the physician manager role has been identified as one of the seven core competencies for specialist physicians (http://rcpsc.medical.org/canmeds/index.php). In the USA it has been suggested that time away from direct clinical responsibilities is needed to allow for substantial engagement in other physician activities such as management of the delivery of health care services, quality improvement

initiatives, community work and advocacy.[32] Leadership training at undergraduate level, however, seems to be less common internationally[18]

In the UK a five-domain Medical Leadership Competency Framework (MLCF), along with a Medical Engagement Scale, has been designed to ensure that all medical students and doctors (hospital doctors and general practitioners) acquire competence in management and leadership and understand that this is integral to their role.[33] The MLCF has now been incorporated into undergraduate and postgraduate training.

Within the UK, Medical Royal Colleges are addressing this in different ways. For example the Royal College of Psychiatrists is just about to produce a study Guide for Higher Trainees which uses the findings from this research to address deficits in training, by setting out opportunities for on-the-job learning in the hope that future consultants will be more prepared for the demands of their job.

Future research may be needed to ensure these educational interventions make a difference for future medical leaders.

5 CONCLUSION

This paper moves away from using the term management and/or leadership as these terms can have many definitions and lack specificity. Instead it is suggested that one set of skills is required to look after individual patients and another set of skills and knowledge is required by doctors to ensure a healthcare organisation provides high quality healthcare to all patients. While recognising these skills can overlap and be complementary, it is this second category in which doctors feel less confident and less well trained. There are possibly many reasons for this, which may include relatively low representation in the curriculum, timing or methods of assessment, and trainee attention and engagement. The similarity of findings across specialties suggests that training programmes in all areas need to integrate management skills into their curricula alongside the development of the clinical expertise that is core to their consultant role. Particular attention may need to be given to the resource management and service development aspects of training, and

also on supervision and handling poor performance. Further work will be required to explore the best methods of developing these skills and competencies for doctors.

MAIN MESSAGES

- New consultants feel less prepared by their training for elements of their work relating to the organisation of healthcare rather than delivery of care to the individual patient.

- Findings were similar across specialties, suggesting that training programmes in all areas need to integrate higher level management skills into their curricula alongside the development of clinical expertise.

- Specialty training programmes should review their coverage of areas including resource management, service development, supervision and dealing with poor performance.

CURRENT RESEARCH QUESTIONS

- How can training programmes improve management skills without compromising clinical skills?

- To what extent do the medical profession, including specialty trainees, value management skills in training?

- How can training programmes reflect and respond to policy developments, such as changes in commissioning services?

ETHICAL APPROVAL

This study received ethical approval from the NHS National Research Ethics Service (Sunderland Research Ethics Committee).

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