
Article:
O'Keeffe, C. orcid.org/0000-0002-4484-7401, Carter, A. and Mason, S. (2017) The value of emergency medicine placements for postgraduate doctors: views of Foundation Year 2 doctors and training leads in the emergency department (ED). Postgraduate Medical Journal, 93. pp. 15-19. ISSN 0032-5473

https://doi.org/10.1136/postgradmedj-2016-133973

The value of emergency medicine placements for postgraduate doctors: views of Foundation Year 2 Doctors and training leads in the emergency department (ED).

Colin O'Keeffe, Angela Carter, Suzanne Mason

School Of Health and Related Research (ScHARR), University of Sheffield, Sheffield S1 4DA, 0114 222 0694

Colin O'Keeffe,

Research Fellow

Suzanne Mason,

Professor of Emergency Medicine,

Institute of Work Psychology (IWP), Sheffield University Management School

University of Sheffield, Sheffield

Dr Angela Carter

Lecturer in Work Psychology

Correspondence to: Colin O'Keeffe

Keywords: Postgraduate training; emergency medicine; qualitative research methods

Word count: 2999

ABSTRACT

Objectives

To examine the delivery of postgraduate training in the emergency medicine setting and its impact on postgraduate doctor (Foundation Year 2) performance and competence.

Methods

A national study in four Emergency Departments (EDs) in England between 2009 and 2010 was undertaken. Semi-structured interviews with ED Training Leads (TLs) and focus groups with Foundation Year 2 (F2) doctors were carried out in each ED. Interviews and focus group data were analysed to compare perspectives of F2 doctors and TLs on the delivery of training and performance and confidence of F2 Doctors.

Results

Interviews were carried out with eight TLs and focus groups with 30 F2s. F2 doctors and EDTLs agreed that ED was a valuable environment for F2 Doctors to develop their competence, with exposure to a broad range of patients and the opportunity to make decisions about clinical care. Diverging views existed around competence and performance of F2s. F2 doctors had anxieties about decision-making (particularly discharging patients) and required regular feedback to feel confident in their care. TLs recognised a need for more supervision and support for F2 doctors but this was challenging in a busy, performance led service.

Conclusion

Emergency medicine placements were important in the development of confident and competent F2 doctors, particularly in the context of less clinical exposure in other specialty placements. However, there are competing tensions between elements of postgraduate learning and service delivery within emergency medicine that require addressing to enable trainees to optimally develop knowledge and skills in this environment.

BACKGROUND

The Emergency Department (ED) is increasingly been viewed as a challenging environment for all staff, including doctors in postgraduate training.[1] EDs have recently been beset with problems such as seeing more older patients presenting with multiple problems, system pressures both within and outside hospitals and a workforce crisis caused by recruitment shortages.[1 2] These manifold pressures are likely to cause strain between service demands and the education and training needs of postgraduate doctors.[1]

The demanding ED environment is developing alongside relatively recent changes in the structure of medical postgraduate training. The UK Foundation Training (FT) programme was introduced in 2005 [3] to replace the House Officer model. FT offers more structured and focused training that is less dependent on the formal clinical environment. However, postgraduate training is tested by the restrictions in hours and patterns of working resulting from the implementation of the European Working Time Directive (EWTD). [4 5] All of these factors have the potential to reduce postgraduates' exposure to clinical activity, reduce close contact with senior doctors, and offer less opportunity to be part of complete patient episodes.

Evaluation of the ED setting for postgraduate learning is under-researched.[6] As part of a study of Foundation Year 2 (F2) doctors' well-being and quality of care (EDiT Study)[7] we examined how FT training was delivered in the context of emergency medicine and its impact on F2 doctors development (competence and performance).

METHODS

Ethical approval for the study was received in May 2009 (Ref: 09/H1307/27).

Design and setting

A national qualitative study using interviews and focus groups assessed the perspectives of F2 doctors and ED Training Leads (EDTLs) between November 2009 and February 2010.

Recruitment

We contacted all EDs in England as part of the wider EDiT study in 2008. [7] Four EDs were selected from those responding to achieve a spread of teaching and non-teaching hospitals. ED Lead consultants were asked to identify EDTLs in their department to be approached for interview. EDTLs subsequently contacted F2 Doctors on our behalf regarding participating in focus groups.

Procedure

A semi-structured interview was designed for EDTLs to explore issues of training delivery ("*Can you describe the training F2 Doctors receive in your ED*") and quality of service delivery ("*To what extent do you feel F2s in your ED contribute to the provision of a good quality service"*). A focus group was designed for F2 doctors examining issues of well-being ("*Think about when you finish a shift; what are the things that you worry about*"); experiences of training ("*What could be done to improve your work experience as an F2 Doctor in ED*"); and their confidence and competence in their training roles ("*Can you describe the things that give you confidence in your work*").

Participants were supplied with an invitation letter and a study information sheet; written consent was obtained. Participants were not recorded to maintain anonymity; but their comments were summarised and fed back to validate the emerging themes. [8] At least two researchers were present during interviews, with each taking detailed notes to enable accurate reproduction and comparison of all data including quotations (which are reported exactly as noted). Data comprised of thematic accounts and reflections from each of the researchers. [9] We analysed the qualitative data using template analyses using the research questions as an initial guide[9] and deriving themes directly from the data in an inductive approach. [10]

Three researchers gathered data and conducted analyses to gain multiple perspectives and insights. One researcher produced the templates by aggregating themes at group level (TLs and F2s). Themes were examined by two other researchers checking for agreement and aiming to reduce any potential bias. [9] Agreement on themes was high with terminology being the main corrections. Finally all three researchers reviewed the templates for salience (agreement of themes across stakeholders) and difference (individual perspectives adding value to the enquiry); producing a summary template bringing together participant views.

RESULTS

Interviews were carried out with eight TLs (six consultants and two Nurse Practitioner Tutors) across four EDs. Four focus groups (with a total of 30 F2s) were held in three of the four EDs (three within two teaching hospitals and one in a non-teaching hospital).

Four main themes emerged from the data described as converging or diverging participant views or those from related but differing perspectives (these are summarised in Table 1 below).

Table 1. Summary template of themes arising from Training Leads and F2 doctors

Converging views on the ED experience and teaching	
Training Leads	**F2 Doctors**
ED was seen as a challenging but potentially rewarding rotation; F2s had exposure to a broad range of patients and were required to make decisions about their care.	All enjoyed the ED experience; particularly the teamworking culture in ED. But, the work was challenging particularly decision-making about patient care. Elements of the role such as shift working were unpopular.
Training consisted of a mix of formal teaching and informal learning. Generic teaching sessions lacked value as they were not related to ED. Shifts and EWTD led to missed learning opportunities.	Generic teaching was not relevant to practice. Specific teaching relevant to work in ED was needed. Patterns of working reduced opportunities for teaching.
Similar /related views from different perspectives on support and supervision	
Training Leads	**F2 Doctors**
F2 trainees required a lot of senior support and supervision which was difficult to provide in context of a demanding service and lack of staff resources.	Feedback from senior staff (from ED and other specialties) was important to have confidence in their decision-making.
Diverging views on achieving competence and performance in ED	
Training Leads	**F2 Doctors**
Four-month rotations increased trainees overall experience of different disciplines but reduced their ability to achieve competence in ED. F2s varied in their performance and confidence; some were well prepared for demands of ED while others lacked in confidence.	Most trainees felt the four-month rotation sufficient to become competent in ED. They felt competent in their last month of the placement period. F2s were particularly anxious about their ability to make decisions about patient discharge and how to deal with the associated risk.

1. The ED Experience

Training Lead views

TLs and F2s agreed that ED was a rewarding learning environment with opportunity to make decisions about patient care, albeit in a challenging environment.

"(ED is) *an intense experience where trainees have to think for themselves and take decisions." TL.*

When F2 Doctors were asked if they enjoyed the ED environment there was a positive "*yes*" from all four groups:

"A good teamworking environment where I do not feel isolated" (as they did in some surgical rotations*). F2;*
"You learn so much by doing things at a fast rate – having to make decisions – it is great experience for the future." F2.

However, participants from three of the four focus groups described the busy work environment in ED along, insufficient staffing, having implications for their training:

"*Not having enough staff on at peak times like bonfire night."* F2;
"Not having protocols to follow." F2.

A perception of poor work-life balance was mentioned in two of the four focus groups:

"Doing a difficult shift every day is very demanding and I would have to consider the lifestyle implications if I took this job on as a career." F2.

2. Teaching

Training Lead views

Foundation training was viewed as more generic and no longer specifically focused on ED skills and procedures (these were previously taught on a one-to-one basis and practiced until proficient). It was also noted that the changes in Medical Schools' approach from teaching to problem-based learning was leading to greater variations in knowledge. Gaps in basic knowledge were noted (e.g. in Anatomy and Physiology) resulting in staff having to: *"Offer more support and development in ED than before"* TL.

Changes in working pattern of doctors into shifts (associated with EWTD) were seen to be interfering with access to teaching and training opportunities for F2 Doctors. For example:

"*Some training time is lost; many miss two or three (teaching) sessions as they are off shift or on holiday or study leave. They only attend sessions if they are interested and if they miss them this leaves gaps in their knowledge.*" TL.

F2 Doctor views

Participants from all four focus groups agreed generic training could be more relevant to ED practice and patterns of working reduced opportunities for teaching:

"….(we need) *more clinically relevant topics rather than health and safety.*" F2;

"EWTD cuts down teaching time." F2; and

"….shift working does not allow me to complete the minimum teaching requirement." F2.

3. Support and Supervision

Training Lead views

Different perspectives were apparent around issues of support and supervision. Training leads identified that learning under FT was reliant on "*informal or experiential learning*" (terms that TLs used to refer to as problem–based learning). As a result of this approach F2s needed a lot of support from senior staff.

TLs commented that ED was a particularly challenging environment in which to provide supervision; and while there had been an increase in consultant posts in ED enabling all F2s to have supervisors, others observed there were not enough senior staff to support their F2s adequately; with non-medical (e.g. Nurse Practitioners) required to take on supervision:

"*There are too many trainees in the department; it is difficult to provide support for them all."* TL;

"*There is insufficient senior staff for close supervision; we are not giving what we should be giving in terms of education and training*." TL.

Increasing demands of supervision had occurred alongside greater service delivery pressures:

"*We are incredibly busy; the workload just gets higher and we are not broken yet but it is not far off – we just need more senior staff."* TL.

F2 Doctor views

Supervision was mentioned in three of the four focus groups with F2s wanting more review sessions with senior staff:

"…about patients that were seen on a shift after the event; talking about whether they (were) *discharged or not.*" F2.

Support from seniors in their management of patients was required to increase F2s' confidence in the decisions they made (particularly around discharge decisions). When asked what gave them confidence to deliver good patient care F2s strongly agreed that: positive feedback on their performance from senior colleagues, previous experience of the clinical situation and apparent patient satisfaction. For example, the following gave them confidence in their abilities:

" (Consultants, Registrars)*…affirming that the appropriate clinical process had been followed.*"F2;
"….previously seeing how to manage a case like a Colles fracture." F2;

"*…patient saying that they feel better after treatment.*" F2.

4. Time taken to achieve competence and performance in ED

Training Lead views

Diverging views were apparent with TLs and F2s disagreeing about the time it took to demonstrate competence. TLs felt six months was more realistic than four months in ED:

"*They are just becoming competent when they leave.*" TL

Variation in trainee performance and confidence was commonly described by TLs; with some F2s being able to meet the demands of ED while others appeared to be unprepared for the role and lacking in confidence; reluctant to take decisions and working too slowly. For example some F2 doctors:

"Are unable to meet the demands placed upon them" TL;

"*…unprepared and lacking in confidence*" TL.

It was noted that F2 doctors had less experience of decision-making in other placements having had less "*hands-on experience*" with practical aspects of training, reducing their confidence; with this being particularly evident in their first F2 rotation.

F2 doctor views

F2s had varying views of the appropriate length for the ED placement but, two focus groups agreed a four-month rotation gave them greater choice of specialties within their overall training. Most trainees felt the four-month placement period was sufficient to become a competent doctor in the setting. When asked what they worried about when finishing a shift there was agreement in the four groups that they had concerns about sending a patient home:

"*I am anxious about discharging patients; if I can discuss this with a consultant I am reassured.*" F2;

"I worry less if they are referred because the patient is safe." F2.

F2s from two of the focus groups worried about making decisions within the four-hour target:

"*Compared to other specialties there is a small space of time to make a decision whether to admit or discharge a patient.*" F2.

DISCUSSION

We have examined ED training in depth from both trainers' and trainees' perspectives. There was agreement across the parties that while ED is a demanding speciality it was an invaluable learning experience putting trainees at the heart of service delivery unlike many other specialities. Both parties agreed that elements of FT were unsuitable to support the ED experience and that shift-working reduced learning opportunities. Both parties emphasised the need for good supervision and support while working in ED to increase trainee confidence in the decisions they were making. However, trainers emphasised the extra load and strain that supervision placed on the already busy and demanding role of a senior member of ED staff. There was some disagreement about competence and performance of F2 doctors in ED. Most trainees felt the four-month placement was sufficient time to achieve competence while trainers felt many took considerably longer to achieve competence and overall there was variation in F2 doctor performance and confidence in the role. These differing views may well be associated with difference in role perception; with F2s seeing

themselves in a training role and TLs requiring a competent member of the ED team to assist with providing a busy service. F2 doctors' in a previous study also reported a perception of unrealistic expectations of their role and competence [11] while other research has found four-month rotations too short; reducing their role in providing a continuous service.[12]

FT was identified by EDTLs as being generic in nature and less focused on the ED setting, which may contribute to the divergent views of F2 competence in ED. Changes to undergraduate medical education were also mentioned by some TLs, with a move away from more traditional forms of education to a problem-based learning approach (PBL). [13] PBL has been introduced in medical schools specifically to enable students' to engage with critical thinking, analyse complex problems, identify facilitative learning tools, develop communication skills and to engage in continuous learning.[14] This study showed F2 trainees applying the PBL approach in emergency situations. TLs in our study compared the emergency care knowledge of F2 doctors using PBL unfavourably with previous postgraduate doctors (House Officers) who had undergone traditional knowledge-based learning that was more specific to the ED setting. This dichotomy of PBL versus knowledge-based learning may also help to explain the divergent views of F2 doctors and ED training leads around F2 doctors' acquiring appropriate levels of competence. In addition for learning to occur as a result of PBL facilitation, feedback and supervision are critical. Therefore it was unsurprising that support and supervision was one of the main themes to emerge from our study.

The overall experience of F2 doctors in this study does not appear to be as negative as has been reported elsewhere.[2] F2s in our study did report concerns with being unsupported at night, difficulties with decision-making in relation to patient care and issues of work-life balance, but this did not make them all feel 'marginalised' or deciding not to pursue a career in Emergency Medicine as has been reported elsewhere.[2] Lack of clinical supervision both during weekdays and overnight; insufficient staffing levels, and junior doctors being asked to work beyond their competence have been reported in 16 EDs.[2] F2s in our study reported extrinsic difficulties of working in an emergency setting (e.g. shifts, unsocial hours) but this did not detract from their intrinsic learning experience. A recent longitudinal study of FT [6] found intrinsic satisfaction of F2s was maintained across their three second-year placements with only a dip in extrinsic satisfaction (associated with pay and working hours) being noted in association with ED; however, the lower levels of extrinsic satisfaction associated with ED were equivalent to that reported by a sample of other health care professionals.[15] The intrinsic benefits of working in ED are complete exposure to emergency clinical provision, opportunities for "*real life*" problem-based learning and exposure to critical decision-making. Participants noted that these experiences were important for their career decision-making.

Previous studies examining experiences of doctors in training have highlighted the importance of trainees feeling adequately supported and the importance of supervision and feedback.[16 17] Our study shows TLs balancing challenging service conditions with provision of adequate support and supervision. It is interesting to note that not all the supervision support was given by medical staff; with F2s enjoying feedback and support from other ED team members such as Nurse Practitioners and medical staff from other specialities.

Strengths and Limitations

The strength of this study was that it collected data from the perspectives of different TLs (consultant and nurses) and F2 Doctors themselves to give a range of opinions across a number of sites. Our sample of eight TLs may be considered a small sample but this was found sufficient for 'saturation' (or repetition) of information within our data collection. Finally, our study was undertaken in 2009-10 and it is likely that the ED environment has become even more challenging to staff, including F2 doctors. On the other hand, there is some evidence in this study that attitudes to aspects of work such as shift-work are changing; while not considered ideal there may be a greater acceptance of this way of working in health care environments as shift-working becomes more common.

Conclusion

This detailed study indicates that Emergency Medicine provides an excellent learning environment for the training of F2 doctors. However, there are competing tensions between postgraduate learning and service delivery within emergency medicine that require addressing to enable trainees to develop their knowledge and skills in an emergency environment. Emergency Medicine staff should become familiar with facilitating F2s approach to learning (PBL); within the context of service pressures there should be agreement as to the boundaries of risk that trainees are exposed to during their learning; and consideration needs to be given to provide adequate levels of supervision, support and feedback during busy working periods.

Acknowledgement

We would like to thank the participating Emergency Departments and Foundation Doctors who gave up their time to participate in this study.

References

1. Health Education England. *Emergency Medicine. Background to HEE proposals to address workforce shortages:* Health Education England; 2013. https://www.hee.nhs.uk/our-work/developing-our-workforce/emergency-medicine. Accessed January 2016.
2. General Medical Council. *Medical Education's Frontline*. *A review of training in seven emergency departments.* London: General Medical Council; 2013.
3. Department of Health. *The next steps – The Future Shape of Foundation, Specialist and General Practice*. London: Department of Health; 2004.
4. Temple J. Time for Training: A review of the Impact of the European Working Time Directive on the Quality of training. Health Education England; 2010.
5. Tsouroufli M, Payne H. Consultant medical trainers, modernising medical careers (MMC) and the European time directive (EWTD): tensions and challenges in a changing medical education context. BMC Med Educ 2008; 8:31.
6. McGowan A. Modernising medical careers: educational implications for the emergency department. Emerg Med J 2006;23:644-646.
7. Mason S, O'Keeffe C, Carter A, Stride C. A longitudinal study of well-being, confidence and competence in junior doctors and the impact of emergency medicine placements Emerg Med J 2016;33(2):91-98 01.
8. Bryman A. Quantity and Qualitity in Social Research. London: Taylor & Francis Group. 2004.
9. Braun V, Clarke V. Using thematic analysis in psychology. Qualitative Research in Psychology. 2006;3:77-101.
10. King, N. (2004). Using templates in the thematic analysis of text. In C. Cassell & G. Symon (Eds) *Essential Guide to Qualitative Methods in Organizational Research,* 256 – 270. London: Sage Publications Ltd.
11. O'Brien M, Brown J, Ryland I, Shaw N, Chapman T, Gillies R, et al. Exploring the views of second-year Foundation Programme doctors and their educational supervisors during a deanery-wide pilot Foundation Programme. Postgrad Med J2006;82(974):813-6.

12. Wakeling J, French F, Bagnall G et al. Is Foundation training producing competent doctors? What do Foundation trainees, educational supervisors and nurses in Scotland have to say? *Scott Med J 2011;56(2):87-93*

13. Ungaretti, U, Thompson, K, Miller, A, Peterson, T (2015). Problem-based learning: Lessons from medical education and challenges for management education. *Academy of Management Learning & Education, 14*, 173-186.

14. Duch, B, Groh, SE, Allen, D (Eds.). (2001). The power of problem-based learning. Sterling, VA: Stylus.

15. Stride C, Wall TD, Catley N. *Measures of job satisfaction, organisational commitment, mental health and job related well-being: A benchmarking manual.* Chichester: John Wiley & Sons Ltd; 2007.

16. Brennan N, Corrigan O, Allard J, Archer J, Barnes R, Bleakley A, et al. The transition from medical student to junior doctor: today's experiences of Tomorrow's Doctors. Med Educ. 2010;44(5):449-58.

17. Goodyear H. first year doctors' experience of work related wellbeing and implications for educational provision. International Journal of Medical Education. 2014; 5: 103-109.

Research questions

- What is the impact of different models of educational supervision, feedback and case discussion on Foundation doctor confidence and competence?
- What is the impact of Foundation doctor well-being on quality of care outcomes?
- What are the key learning experiences for Foundation Year 2 training identified by postgraduate educational and clinical stakeholders?

What is already known on this subject?

- The specialty of Emergency Medicine is under considerable pressure with increasing demand, complex caseloads and workforce shortages leading to reduced performance and increased strain on Emergency Departments (EDs)
- A recent report by the General Medical Council raised concerns about the suitability of a number of EDs in England for postgraduate learning. Insufficient staffing, a lack of clinical supervision and trainees being asked to work beyond their competence were identified as concerning features of some ED environments.
- The contribution of ED to the postgraduate development of Foundation Year 2 Doctors is under-researched.

Main study messages

- The emergency medicine environment was viewed by both Foundation Year 2 (F2) Doctors and their Training Leads as a positive environment for postgraduate training as it placed F2 doctors at the heart of service delivery with the opportunity to see a broad range of patients, which was not the case with many other F2 placements.
- F2 doctors acknowledged anxieties about clinical decision-making, particularly with regard to discharging patients and felt they required more feedback on these decisions to feel confident. Training leads agreed that F2 doctors required more feedback and support than was always possible in a busy, performance driven service.
- There was some disagreement about competence and performance of F2 doctors in ED. Most trainees felt the four-month placement was sufficient time to achieve competence while trainers felt many took considerably longer to achieve competence and overall there was variation in F2 doctor performance and confidence in the role.
- Within the context of service pressures there should be agreement as to the boundaries of risk that trainees are exposed to during their learning; and consideration needs to be given to provide adequate levels of supervision, support and feedback during busy working periods.

Competing interest's declaration

We declare the following interests: None.

Funding. This study was funded by the NIHR HS&DR funding stream (Ref 08/1819/221). The study funders approved the final protocol and design of the study. However, the views expressed here are those of the authors alone.