

The transition from medical student to junior doctor: today's experiences of Tomorrow's Doctors

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CONTEXT Medical education in the UK has recently undergone radical reform. *Tomorrow's Doctors* has prescribed undergraduate curriculum change and the Foundation Programme has overhauled postgraduate education.

OBJECTIVES This study explored the experiences of junior doctors during their first year of clinical practice. In particular, the study sought to gain an understanding of how junior doctors experienced the transition from the role of student to that of practising doctor and how well their medical school education had prepared them for this.

METHODS The study used qualitative methods comprising of semi-structured interviews and audio diary recordings with newly qualified doctors based at the Peninsula Foundation School in the UK. Purposive sampling was used and 31 of 186 newly qualified doctors self-selected from five hospital sites. All 31 participants were interviewed once and 17 were interviewed twice during the year. Ten of the participants also kept audio diaries. Interview and audio diary data were transcribed verbatim and thematically analysed with the

aid of a qualitative data analysis software package.

RESULTS The findings show that, despite recent curriculum reforms, most participants still found the transition stressful. Dealing with their newly gained responsibility, managing uncertainty, working in multi-professional teams, experiencing the sudden death of patients and feeling unsupported were important themes. However, the stress of transition was reduced by the level of clinical experience gained in the undergraduate years.

CONCLUSIONS Medical schools need to ensure that students are provided with early exposure to clinical environments which allow for continuing 'meaningful' contact with patients and increasing opportunities to 'act up' to the role of junior doctor, even as students. Patient safety guidelines present a major challenge to achieving this, although with adequate supervision the two aims are not mutually exclusive. Further support and supervision should be made available to junior doctors in situations where they are dealing with the death of a patient and on surgical placements.

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INTRODUCTION

The transition from medical student to junior doctor has long been considered a significant rite of passage.¹ International research confirms that this transition is frequently experienced as very stressful.^{2–4} Inadequate preparation during medical school, and poor support and education for newly qualified doctors as they first enter clinical practice, have been identified as factors contributing to this stressful experience of transition.⁴

Since the Flexner Report⁵ first highlighted the need for change in medical education, reform to medical curricula has been ongoing. During the past two decades in particular, in response to the fast pace of scientific developments and changing societal expectations and values, some radical reforms in education and training have taken place across the globe.^{6–8} In 1993, the UK's General Medical Council (GMC) first introduced *Tomorrow's Doctors*, which set standards designed to ensure that those graduating from medical school would be better equipped to deal with the demands of modern medicine and further education.⁹ Emphasis was placed on integrating the applied sciences and clinical skills with communication skills and the legal and ethical aspects of medicine. An update of the guidelines in 2003 placed increasing emphasis on learning about the clinical realities faced by new doctors by stipulating the provision of opportunities for students to shadow junior doctors.¹⁰ A third version of *Tomorrow's Doctors* (2009) has recently been published and 'has responded specifically to concerns about scientific education, clinical skills, partnership with patients and colleagues and commitment to improving health care and providing leadership'.¹¹

Reforms have also taken place in postgraduate training in the UK and have been introduced as a result of the new Modernising Medical Careers agenda.¹² Since 2005, all newly graduated doctors have followed a 2-year, curriculum-based Foundation Programme of training designed to serve as a bridge between medical school and specialty or general practice training. All graduates of UK medical schools are required to complete the Foundation Programme before applying for specialty training.

The Foundation Programme 'has a common, generic curriculum, rotating through at least three specialties each year, the aim of which is to enable

doctors to sample a much broader range of practice than did previous trainees'.¹³ Whereas previous postgraduate curricula focused on teaching medical procedures and techniques, the Foundation Programme curriculum recognises that doctors now require a broader range of skills and competencies. To this end, formal assessments to determine a range of skills competencies in the workplace have been introduced.¹⁴ Many of these competencies, such as communication, leadership, acute care and team-working skills, have never been previously assessed.¹⁵

Unsurprisingly, there is an expectation that students educated through the *Tomorrow's Doctors* curriculum should be better prepared for practice and that this, combined with the new educational structure provided by the Foundation Programme, will result in a smoother transition from undergraduate education to clinical practice and further training.

Previous research has been conducted to evaluate particular aspects of the *Tomorrow's Doctors* curriculum, but these studies have largely relied on attitude questionnaires and have failed to elicit a deep understanding of the transition.^{16–19} In recent years, some qualitative studies using interviews and focus groups have been carried out; however, all but one of these was conducted in the context of the previous pre-registration house officer (PRHO) training system, which preceded the 2005 launch of the Foundation Programme.^{3,20–22}

Nevertheless, these qualitative methods-based studies have provided interesting insights into the experiences of newly qualified doctors. For example, Lempp *et al.*³ revealed how PRHOs found the first 6 months of work to be very stressful, and how this is related to high personal expectations and concern about their competency in emergency situations, as well as ignorance of routine hospital procedures and clinical and administrative workloads. Other studies have suggested that those educated under the new *Tomorrow's Doctors* curriculum are better prepared for practice than the trainees of previous years and, in particular, are more adept at dealing with uncertainty, communicating with patients, knowing their limits and asserting their right for support.^{20,21}

More recently, a multi-methods longitudinal study commissioned by the GMC examined medical graduates' preparedness for practice in the Foundation Programme.²² Illing *et al.*'s study used qualitative interviews to compare and contrast the

preparedness of new medical graduates from three diverse UK medical schools. Their main conclusion was that undergraduates' preparedness to begin the Foundation Programme was greatly improved by prior experiential, work-based (placement) learning in clinical practice during their undergraduate programme. Our study shares some similarities in that it is also a qualitative study conducted in 2007, but it differs in that we interviewed at different times during the year and also used an audio diary method. The latter provided our participants with the opportunity to tell of their experiences soon after they occurred and produced accounts that were immediate and captured the emotional ups and downs of clinical experiences.

This study sought to uncover the experiences of these newly qualified doctors and to assess whether the changes to undergraduate and postgraduate education and training have resulted in a smoother transition from the role of medical student to that of trainee doctor. Specifically, it sought to address the following questions. How are medical graduates experiencing the transition? How well prepared do they perceive themselves to be for their new role and the tasks involved? How well supported are they by senior doctors and others in the multi-professional team?

METHODS

Participants

The participants were newly qualified doctors based at the Peninsula Foundation School, Plymouth, undertaking the first year of the new 2-year Foundation Programme (F1) at five hospital trusts in Devon and Cornwall in the southwest of England. A stratified, purposive sampling strategy was adopted. The sample was stratified by medical school (Peninsula Medical School graduates and graduates from other medical schools, although this aspect is not reported in this paper) and by hospital site. The characteristics of the sample are presented in Table 1.

The lead researcher travelled to each of the five hospital sites to recruit participants via study briefings in educational sessions. Of the 186 F1 doctors in the five hospitals, 31 participants (17 men and 14 women) volunteered to participate. A minimum of four and a maximum of nine participants came forward at each of the five sites. Participants opting into the study gave their informed consent to

participate in two rounds of interviews and to record audio diary entries for the length of the study. Interviews were subsequently arranged by members of the research team. We conducted 28 interviews during Round 1 and 20 in Round 2; 17 participants took part in both rounds of interviews. Seven participated in both rounds of interviews and provided audio diary recordings. Ten audio diary recordings were collected in total. Of the 31 participants, 12 provided data at one time-point and the remaining 19 participated in at least two components of the study.

Data collection

A semi-structured interview and audio diary approach was used with a schedule designed to investigate the ideas of 'transition' and 'preparedness'. Interviews were conducted 3–4 months into the F1 year and again 3–4 months from the end of the first year. The purpose of the second interview was to identify any changes in experiences and attitudes. The same interview schedule was utilised on both occasions and interviews were conducted as guided conversations. This approach to interviewing encourages participants to speak on a limited number of topics on a focused, deep level whilst maintaining a conversational flow from one topic to another.²³ The interviews were conducted by a team of eight experienced qualitative researchers. All participants were contacted by e-mail or telephone and interviewed in a private space on hospital grounds. Participants were asked to record audio diary entries throughout the year to recount their experiences of the transition from student to junior doctor and to document any aspects of the programme that were going particularly well or not well and anything else they felt was relevant. Not all participants took part in both rounds of interviews; most apologised for this, stating that shift patterns and time constraints rather than disinterest had prevented their participation. Given their busy schedules, we were pleased that during the first round of interviews 28 of the 31 recruited participants were available for interview, as were 20 for the second round (three participants were interviewed for the first time in Round 2). Although reminder e-mails about the audio diaries were sent out to all participants, the take-up rate for these was much lower and only 10 audio diaries were completed. The number of entries and length of recording varied considerably. The number of entries ranged between one and 16 and the diaries collectively amounted to a total of 307 minutes of recorded data. Despite the low number of com-

Table 1 Sample characteristics

Participant no.	Male/Female	Hospital site	Interviewed in Round 1	Interviewed in Round 2	Audio diary	No. of audio diary entries	Minutes of audio diary
1	Male	Site 1	✓	✓			
2	Female	Site 1	✓				
3	Male	Site 1	✓	✓	✓	1	11
4	Male	Site 1	✓	✓			
5	Male	Site 1	✓	✓	✓	2	42
6	Male	Site 1	✓				
7	Male	Site 1	✓	✓	✓	11	24
8	Male	Site 2	✓	✓	✓	7	22
9	Male	Site 2		✓	✓	1	3
10	Male	Site 2		✓			
11	Female	Site 2	✓				
12	Female	Site 2	✓				
13	Male	Site 3	✓	✓	✓	16	140
14	Female	Site 3	✓	✓			
15	Male	Site 3	✓	✓	✓	6	10
16	Female	Site 3	✓				
17	Male	Site 3		✓			
18	Female	Site 3	✓	✓	✓	10	26
19	Male	Site 3	✓				
20	Female	Site 3	✓				
21	Female	Site 3	✓	✓			
22	Female	Site 4	✓	✓			
23	Male	Site 4	✓	✓			
24	Female	Site 4	✓	✓			
25	Male	Site 4	✓	✓			
26	Male	Site 5	✓	✓			
27	Female	Site 5	✓				
28	Female	Site 5	✓				
29	Female	Site 5	✓				
30	Female	Site 5	✓		✓	8	20
31	Male	Site 5	✓	✓	✓	5	9
	Male/Female (n)*	Hospital Site (n)*					
Total	17 Male 14 Female	Site 1–7 Site 2–5 Site 3–9 Site 4–4 Site 5–6	28	20	10	1–16	307

*n = number of participants

pleted diaries, many of the data were extremely rich, providing detailed accounts of experiences that had occurred and describing scenarios that

had gone badly as well as more positive experiences. The diarists also vividly described their emotional responses to these events.

Ethics approval

The study was approved by the Peninsula College of Medicine and Dentistry Ethics Committee. Written and verbal information was provided to all participants and written consent was obtained before commencement of the study. In view of the 'limits of consent' as a *sufficient* ethical practice,²⁴ interviewees were in addition written to and thanked on the completion of data collection and have also been alerted to initial study findings and will continue to be informed of ongoing publications and dissemination via the study website.

Data analysis

Following data collection, the interview and audio diary entries were transcribed verbatim by professional transcribers who specialise in medical interviews. Pseudonyms were used to protect participants' anonymity. A thematic index was then developed to which the entire dataset could be coded.²⁵ Initial categories were devised by the research team and the eight individual researchers subsequently developed thematic indices according to their own understanding of the emerging content of the data. A final overall indexing system was discussed and agreed by all parties in a collaborative research meeting prior to the first stage of formal analysis. Data were then coded to the individual categories in the thematic framework using NVivo, a computerised indexing system for qualitative data (QSR International Pty Ltd, Doncaster, Vic, Australia).

The interview and audio diary data were given equal importance in the coding. Audio diaries often provide more detail on a particular experience and the data generated here tended to be more about the day-to-day experiences of the trainees. Less was recorded regarding their preparedness as such, but many of the entrants recorded particularly difficult experiences and one participant even recounted that the audio diary provided a means to 'unburden' himself from stressful and difficult episodes that had occurred.

In order to maintain a holistic approach to the data and to discover trends over time, we also analysed each individual transcript to obtain a general summary of the participants' perceptions of their preparedness and how they managed the transition from medical student to practising doctor. Interviews with participants were categorised by the two leads (NB and OC). Category headings included Well Prepared, Good Transition, Mixed Preparedness, Mixed Transition, Badly Prepared and Bad Transition.

RESULTS

The stress of transition

One of the main findings to emerge from the data is that the transition from medical student to junior doctor is often extremely stressful. One participant expressed this dramatically:

'...there's no greater challenge outside of war time than actually being a junior doctor...' (Derek, Site 1, Round 1)

Many reported how emotionally stressed they felt at times:

'Well, at the end of the day I survived the experience but it was terrifying, I burst into tears twice [...] because I just found it so stressful.' (Sinead, Site 2, Round 1)

Responsibility

Most of the participants experienced times when they felt burdened and sometimes fearful about taking responsibility for decisions. They revealed that they felt they had quite quickly come to realise that they were now ultimately responsible for patients' lives. The pressure of actually dealing with clinical realities and deciding on how to prioritise tasks was often one that they initially found extremely challenging:

'...it's just the whole transition from classroom into workplace and being aware that you know, people's lives are at stake, you can make the small error but it could [...] have really severe consequences.' (Andrea, Site 3, Round 1)

For some, the initial realisation of their responsibility for patients' lives made them anxious about their competence and knowledge. This was particularly the case in prescribing, where concern about lack of preparedness was expressed by a number of participants:

'I would say at the beginning having to write out like prescriptions and stuff like that, we weren't really at my medical school taught how to prescribe drugs, so I found that I was very much constantly going to the BNF (British National Formulary) to make sure that it was the right dose.' (Sinead, Site 2, Round 1)

However, participants reported that prior experience of acting up to the role of an F1 and attaining as

much responsibility as possible during shadowing and on placements whilst a student made the transition a lot easier:

‘In particular I found the week where you had to act up as an F1, go on ward rounds, do all the jobs as ... I mean as menial as it seemed at the time, was actually a very good experience and just helped to [...] prepare me for [...] ward work and what it was like.’ (Jack, Site 1, Round 1)

Dealing with uncertainty

Our study revealed mixed responses to dealing with uncertainty. Participants encountered uncertainty in terms of what was expected of them as well as in terms of medical uncertainty – their own and that of others – about diagnosis and treatment:

‘Well, what exactly is expected of you as an F1, I’m never certain, am I doing enough [...] When you’re on-call it’s incredibly uncertain...’ (Adam, Site 5, Round 1)

However, a number of participants reported that this anxiety around uncertainty decreased over time as they began to understand that managing uncertainty is a normal part of being a doctor:

‘I think there’s a lot of uncertainty and at first I think I found it quite difficult, you know wanting to find an answer for everything [...] but I know that it’s not possible and I think that’s fine to say that you don’t know [...] And I think, yeah I guess I am finding that easier [...] I think I am coming to realise that medicine is full of uncertainties.’ (Sheila, Site 3, Round 2)

Learning from prior experience

Although, in general, the transition from student to junior doctor was still experienced by many as difficult and stressful, an important finding to emerge from our study concerned the value of learning from prior experience and the majority of participants greatly valued their prior clinical experience. Indeed, even for those who found at least some aspects of the transition extremely challenging and stressful, any prior experience ameliorated this:

‘I felt really under-prepared for F1. I have to say [...] they go on about when you’re a doctor you do this and good practice is to do that and the only proper input we had was the shadows we did [...] you do learn so much just from doing the job.’ (Isobel, Site 5, Round 1)

Prior experience of student placements in the specific clinical settings of future F1 jobs also appeared to be beneficial:

‘I think it also helped the fact that I had already worked with that team in my medical school training, so I knew the individuals there and that was very helpful and I think it helped relieve a lot of my anxieties about starting work as a doctor.’ (Andrea, Site 3, Round 1)

Working on night duty for the first time and being on-call were very stressful for all our participants. However, those who had been given or taken the opportunity to shadow on night duty found it less so:

‘Yeah, you’ve got to take the opportunities and do it. But that’s hard work [...] you have to be there at seven o’clock at night [...] and you have to be motivated to do that. But it does make a big difference [...] if I hadn’t done that [...] I would have really struggled.’ (Barry, Site 3, Round 1)

Some felt their prior experience of working in teams and learning about multi-professional teamwork during medical school had helped to prepare them for the actualities of teamwork. Others who had not had as much experience of teamwork, or had not realised the significance of this during their medical school education, reported otherwise:

‘I mean again as an undergraduate you don’t really get that much exposure sort of working with physios, working with occupational therapists, all the specialist nurses as well and as soon as you’re thrust into the job then all those people are on the ward around you as well and all those people are spending just as much time with the patient as you are...’ (Thomas, Site 1, Round 1)

As the comment above demonstrates, the practice of ‘doing’, as opposed to just observing, is very important.

Working (or not) with others

As we have already shown, many of our participants found the start of the F1 year extremely stressful, but as they gained further experience in actually doing the job, particularly in working with senior doctors as well as in multidisciplinary teams, this initial anxiety receded. Traditionally, medicine has been a hierarchical profession in which senior doctors wield considerable power over junior doctors; however, senior doctors also play important roles as mentors

and teachers of junior doctors. Although some of our respondents reported experiencing initial anxiety about working with consultants, surgeons and senior doctors, this often lessened over time:

'I think it always sort of scared me, that part of it, you know, communicating with seniors, but since I've been doing it, I feel a lot less intimidated.' (Penny, Site 2, Round 1)

When the junior doctors felt supported, their stress eased. Senior doctors were seen to play a crucial role in training and supporting F1s. Although our participants reported that they generally felt supported by senior doctors, there were examples where this was not the case. Surgeons in particular were often reported as absent:

'I've noticed that in surgery, there's not so much support, because [...] I think because the surgeons are kind of in theatre, or they're in clinic [...] so I did find at my first placement I was kind of on my own.' (Bridget, Site 3, Round 1)

Although Bridget considered the lack of support from surgeons as a problem, she also saw this as an opportunity to learn and gain support from others in the team:

'...but I think it probably benefited me in a way [...] if you're put in that position where you're on your own, you learn how much you can ask nurses about and how much you can ask other MD team members about, and then how much you need to reserve and ask a consultant about...' (Bridget, Site 3, Round 1)

Levels of support in some environments were much better. Accident and Emergency (A&E) settings were repeatedly reported as supportive environments:

'Yeah, in A&E I felt really supported [...] I think everyone was aware that we were F1s and that we weren't necessarily expected to know everything, and then there was just a very open attitude of us asking for help and teaching us. And although sometimes you feel like you're in the deep end, we were never really put anywhere that we should have been out of our depth or couldn't ask for help if we felt we were, I guess...' (Sheila, Site 3, Round 1)

'I definitely think in A&E I do feel very much supported. With the resus situations [...] like they do try to get us to come in and get us to do bits [...] so that we're getting more comfortable with that type of thing...' (Sinead, Site 2, Round 1)

The dying hours

Although the F1 programme was introduced to ensure that junior doctors are educated and given the support they need to fulfil their roles, our study revealed that support for F1s when a death occurred or when a patient was dying, was often lacking:

'I was present helping, trying to resuscitate her, and she did come back, but she died shortly afterwards, and then I had to [...] phone the coroner and explain the situation and basically say I wasn't prepared to do the death certificate. And I actually found that I had a lack of support, and sadly in that situation is that I was really quite uncertain what to say to the coroner [...] I really didn't know quite where to start [...] But the day she died I felt very, very sad afterwards, and I felt that I needed a bit of space from it all, which I couldn't take...' (Andrea, Site 3, Round 2)

The following interview not only highlights the lack of support and the difficult emotions raised by death and dying, but also suggests that the medical school experience had not prepared this trainee well for dealing with such situations:

'A 70-year-old woman who'd had an MI and it was so undignified, and then we all put the needles in to try and get access and try and get a blood gas and it was, and she died and it was just, just ghastly. I must admit after that I really didn't cope that well that evening and the rest of the week, it was, it really affected me and I did feel a bit [like] "What am I doing here?" I didn't feel prepared and yet speaking to others, they all kind of feel the same.' (Paul, Site 1, audio diary)

Preparedness and transition over time

In order to obtain a general summary of participants' perceptions of their preparedness and how they managed the transition from medical student to practising doctor, interviews with participants were categorised. The results are presented in Table 2. The table shows that in Round 1, the majority of participants had mixed perceptions in terms of their preparedness and their transition (64%) ($n = 28$). In Round 2 the majority of participants still felt mixed in terms of their preparedness and transition (60%) ($n = 20$). However, there was an increase over time in the proportion of graduates expressing feelings that fell into the Well Prepared and Good Transition categories. A further examination of the data from the 17 participants who participated in both rounds of interviews showed little movement between categories. In addition, the data showed that participants

Table 2 Preparedness and transition over time

	Well prepared/ Good transition	Mixed preparedness/ Mixed transition	Badly prepared/ Bad transition
Round 1	29%	64%	7%
Round 2	40%	60%	0%

who felt well prepared also had a more positive overall experience of the transition.

Many participants also strongly acknowledged that there are limits to how well any medical education could prepare them for the role of junior doctor and that certain aspects of the work can only be learned by experience in the role:

‘I mean, I don’t see how, how you can really prepare for that until you’re faced with it really [...] it’s just something that you [...] gain through experience... but it’s difficult to teach that to someone at medical school because you can’t really create that sort of environment in a [...] non-real kind of situation.’ (Becky, Site 5, Round 1)

DISCUSSION

Despite the radical changes introduced to undergraduate and postgraduate medical curricula in recent years, the transition from medical school to practice is still very stressful. Anxieties were expressed about being responsible for people’s lives and this newly gained sense of responsibility often made participants anxious about their competence, particularly in terms of prescribing.

Another source of stress for some related to dealing with uncertainty such as that caused by not knowing what was expected of the trainee as an F1 doctor and not always knowing when to seek help and what help to seek. However, for others, dealing with uncertainty was something they had expected, and it was more appropriate and safer to ask questions or call for help than to carry on regardless. The *Consensus Statement on the Role of the Doctor* says that doctors alone amongst health care professionals must be capable of regularly taking ultimate responsibility for difficult decisions in situations of clinical complexity and uncertainty.²⁶

Many of our participants reported that learning from prior clinical experience in placements, electives and shadowing helped to ease the transition and better prepared them for the role of F1 doctor. This finding confirms that of Illing *et al.*²² Prior experience of acting up as much as possible to the F1 role, attaining as much responsibility as possible during shadowing and on placements, also supported the transition.

The implication of these findings is that, although observing and shadowing do help, there is no substitute for the accumulation of hands-on clinical experience. Medical school curricula should strive to provide cumulative exposure to clinical environments in the undergraduate curriculum, culminating in opportunities for the student to act up as an F1 in the final year. However, such work-based learning should be planned, structured and scaffolded and should incorporate appropriate support and challenge through feedback and integration.^{11,18} This also requires that medical educators, particularly those who are clinically based, become familiar with evidence gained from educational research in work-based learning to inform their teaching. Efforts are being made on a policy level to incorporate such practices into all undergraduate curricula through the new version of *Tomorrow’s Doctors*, which states that ‘early and continuing contact with patients’ is mandatory for medical students.^{11,18}

Although early and continuing contact with patients is an important issue, the challenge involves ensuring that students have ‘meaningful contact’ with (rather than, simply, *exposure to*) patients. Meaningful contact refers to situations in which the student is involved in the care of the patient and understands the significance of the experience he or she is gaining. Current models of placement usually restrict both the frequency and intensity of contact that students have with patients. This may be addressed by having students follow a panel of patients over an extended period of time, during which individual patients become points for educational opportunities and students get to know about ‘their’ patients’ lives in detail.

‘Meaningful’ contact has also become increasingly compromised through safety concerns in recent years, so much so that clinical and communication skills are now learned mainly in simulated settings with actor patients, a context that presents challenges for the transfer of learning.²⁷ Although concern about patient safety is of paramount importance, not much attention has been given to the potential positive impact on patients when care is provided in an environment in which education is valued.

Students should not be construed as risks, but, rather, should be viewed as 'potential contributors to good health care within clinical teams'.²⁸

Tomorrow's Doctors emphasises the importance of working as a team in a multi-professional environment and how medical schools should explore and, where appropriate, provide opportunities for students to work and learn with, from and about other health and social care professionals, deepening multi-professional activity to an interprofessional experience.¹¹ In our study, such experiences varied greatly in terms of team-working and the levels of support provided. Again, the key factor involved an emphasis on the practice of 'doing', as opposed to just observing. Although, historically, team-working has typically been learned on the job, prior experiential learning can enhance students' practical knowledge of multi-professional team-working.²⁹

The Foundation Programme should provide a better supported educational environment than the old system.¹⁴ Although current research has shown that, on the whole, trainees felt supported, there were examples where this was not the case. This was especially true on surgical wards, where supervising surgeons tended to be absent as a result of their theatre responsibilities, and at night, when fewer senior staff were available.

The difficult experience of dealing with death and dying was another major theme to emerge from our study. Many reported distress and even trauma in experiencing the death of a patient. In the past, studies have shown that although medical students had achieved some contact with dying patients by the end of their training, many were still anxious, did not feel they had been given enough time to address the issues and felt inadequately prepared overall.³⁰ *Tomorrow's Doctors* identifies palliative care as one of the core content areas for undergraduate medical education. However, although palliative care has been successfully addressed within the current curriculum, emergency and acute death and dying scenarios may have been overlooked. Furthermore, our findings suggest that more support could be given to FIs, whose first experiences of the most difficult situations often occur when they are alone.

This study is potentially limited by several factors. Firstly, self-selection may represent a bias in the interview and audio diary samples. Secondly, the number of researchers involved in collecting and analysing the data may have had a negative effect in

terms of consistency, although a number of measures were carried out to minimise this effect, including cross-checking of transcripts, following a semi-structured interview schedule and cross-checking of data coding and analysis, which was overseen by the two lead researchers. Finally, the longitudinal aspect of the study is marginally weakened by the number of trainees who participated in all three data collection components. Nevertheless, the dataset provided rich and detailed accounts of experiences.

CONCLUSIONS

The transition from medical school student to practising doctor will always represent a stressful and uncertain period. This transition is a very important first step in the early career of a junior doctor and, indeed, a healthy level of stress displays an appropriate response to this complex process. However, there are ways to ease the levels of stress and improve the quality of transition experienced by new doctors.

We suggest that early, meaningful, sustained and carefully structured patient contact in undergraduate education, which provides an associated opportunity for reflection and integration of learning, will support a better experience of the transition to real work as a doctor. However, this has resource implications for widespread staff development of a clinical teaching workforce, the members of which must be helped to understand how best to apply insights gained from work-based educational inquiry and research.

A lot can be learned by exploring the experiences of junior doctors. As the Foundation Programme matures, and the changes outlined in *Tomorrow's Doctors* 2009 are implemented, further research will be necessary to explore whether there has been a change in the experience of newly qualified doctors.

Contributors: AB designed the study and wrote the application for funding. AB and OC were the principal investigators for the study. NB was a post-doctoral researcher on the study. NB, OC, JAll, JAr, TC and RB were involved in the data collection. Initial themes were identified by all authors. Data analysis using NVivo was carried out by NB, OC, RB, JAll and SRdB. NB and OC carried out further analysis and prepared the initial draft of the paper. All authors commented on manuscript revisions. *Acknowledgements:* the authors would like to acknowledge the study participants and the Foundation Programme managers at each of the hospital trusts. We would also like to

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