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Novice students navigating the clinical environment in an early medical clerkship

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Abstract:

Introduction

Despite sustained effort to improve learning in clinical settings, medical education programs continue to thrust students into the poorly-understood world of unsupervised hospital experience. Some thrive, most survive but others struggle and suffer. Our previous research had shown that despite the time that students are given to learn with, about and from patients, some see very few patients during their placements. We sought to understand the individual and environmental factors that affect medical students' unsupervised encounters with hospital patients.

Methods

Over a period of six weeks, we observed more than 30 medical students and interviewed 17 students during their early clinical placement in a large metropolitan tertiary hospital. The interviews were subjected to content analysis

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procedures and the observation notes added contextual information to what the students had said in interviews. We considered the findings through the lens of Experience Based Learning.

Results

We found four main themes in the data: finding and contacting patients challenges all students; the educational design of the placement is a flawed navigational device; the physical and social terrain of a large tertiary hospital is replete with obstacles; a sub-group of students is particularly dependent on effective relationships with patients and doctors.

Discussion

This study demonstrates that unsupervised clinical placements do not promote successful, efficient or safe learning settings for all students. Viewed through the lens of Experience Based Learning theory, it is clear that from the starting point of formal educational design through to incidental informal contact with patients, medical students need practical and affective support from medical staff and teachers. Further research could establish how to respectfully identify and appropriately support the sub-group of students who find the setting most challenging.

Introduction

The complex environment of acute hospitals challenges novice medical students and is not well understood as a learning environment. The recent focus of many revision and renewal efforts on the medical curriculum overall and the preclinical years in particular has neglected the clinical components of medical programs except for efforts to understand and improve bedside teaching^{1,2} and clinical teaching particularly at the bedside^{3,4}. Efforts to improve students' preparedness for practice in early clinical education have been particularly difficult⁵ and providing more time for students to be involved with patient care⁶ is not always feasible or affordable. More research is required into the 'black box' of student learning during the clinical phase of medical education^{7,8} and this requires a focus on students' interaction with their learning environments⁹.

A recent comprehensive review of the literature identified an interest in applying sociocultural perspectives to studies of medical student learning in

clinical settings¹⁰. The PHEEM (Postgraduate Hospital Educational Environment Measure) evaluation instrument has been developed and refined^{11,12} and, used in conjunction with interviews, showed that the extent of legitimate participation in work activity is the key to a good learning environment¹³. Others take a workplace learning perspective, and Sheehan et al has captured how individual student learners interact with others in the workplace to fit in, to get along and succeed¹⁴. More broadly, it is the interaction of psychological and environmental factors that needs to be studied in order to understand learning and student achievement¹⁵. Studies in that area of thought include, for example, a recent interview-based study, showing that novice students require both junior doctors and their own student peers to actively help them to navigate and understand their new learning environment¹⁶.

This new approach to the dynamic interaction of students with the clinical environment is reflected in the experience-based learning model, particularly the recently published review and blueprint by Dornan et al⁸. This body of work extends the early securing of the patient in the learning triad¹⁷, and the identification of the range of levels of student participation available in clerkships (passive observer, active observer, active in rehearsal, and active in performance)¹⁸.

The development of the blueprint provides an evidence-based framework for evaluating clerkship programmes and probing problems across a range of areas: real patient learning, affective learning, practical learning, instructional design, types of participation, delivery at placement level, and, finally, formal and informal support. We applied the framework as a way to consider the transferability of our findings and to propose solutions.

Our study was conducted with students of the four-year post-graduate Doctor of Medicine programme in the Melbourne Medical School (MMS) which graduates approximately 350 students each year. Each year, students join in a student conference as well as progressively studying clinical practice: simulations in first year; four nine-week full time placements in second year; five terms in specialties in third year; and, in fourth year, completion of the research project and a capstone transition to practice term. The students participating in this

study were in the second year of the program, that is, their first fulltime clinical year of four 9-week placements in one hospital. Each week they have approximately 10 hours of contact classroom or structured teaching hours and the remaining time is for self-directed learning.

In considering the 'black box' of clinical learning, we responded to local concerns about whether students see enough patients in their clerkships, particularly during their self-directed learning time¹⁶ when not directly supervised¹⁹ by a member of the medical team. In a closed-question survey of 241 MMS students in 2011, 19% reported that they 'lacked the confidence to approach patients' and 11% reported having 'assessed fewer than six patients in each of their rotations'²⁰. We asked the following research question: What are the individual and environmental factors affecting medical students' unsupervised encounters with hospital patients?

Methods

We adopted an ethnographic approach to the research: extended field observations allowed the researcher (JB) to enter the clinical learning world of the students²¹ and the semi-structured interviews allowed her to sample students' views of their experiences (Appendix S1 available online). Triangulation of these data allowed us to compare and contrast student utterances with their actions.

The study was conducted at a large teaching hospital in the admissions unit and three medical units, areas where the largest number of students (approximately 40) were expected to attend over the study period. With support from the academic medical leaders at the site, JB introduced the study to the whole student group and again to individuals as she located them in the wards, corridors and other clinical areas. Participation was voluntary, that is students were invited to participate and given the option to decline the invitation. No individual identifying information was recorded or transcribed.

During the fieldwork, JB adopted a position of empathic neutrality – neither aloof, nor passionate – and established relationships with the students and medical staff that were respectful, sensitive and essentially non-judgemental²².

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JB was equipped to conduct this fieldwork with over 20 years experience as a medical education practitioner and researcher in another hospital. She attended the nominated sites at different times of the day and evening over six weeks, moving between four clinical areas to informally observe students, converse with them and with medical staff, and to interview volunteers. The audio-recorded interviews took place in co-located meeting rooms. Detailed field notes were made during or immediately following the field visit to capture otherwise unrecorded details.

The interviews were transcribed and, consistent with accepted content analysis procedures²¹, the transcripts were read multiple times by one researcher and once by another researcher. These progressive readings were accompanied by a move from intuitive early margin notes, to codes that named insights and experiences shared by a number of students and those that were unique to one student. Data were then categorized into themes. Observation notes were revisited throughout these processes to ensure student and staff actions and particular contextual elements were sufficiently accounted for in categorizing the transcript data. Finally, the categorized data were considered through the lens of Dornan's Experience Based Learning theory²³.

The study was approved by the Hospital's Human Research Ethics Committee (#2015.115) and by the University of Melbourne's Human Research Ethics Committee (#1544960.1) and was endorsed by the clinical academic leaders at the Hospital.

Findings

The fieldwork was undertaken over a period of six weeks, a total of 43 hours in 21 separate sessions of various lengths determined by student availability in the nominated clinical areas. Through conversations and observations direct contact was made with 31 students, five interns and four registrars. Subsequent to observing students and casually conversing with them, JB invited them to interview. A total of 17 of the observed students participated in interviews, 7 females and 10 males, mostly as individuals but some in groups of two or three. Only one invitee declined the invitation to be observed.

Four main themes emerged from the analysis. [Italicised comments are identified with IT (Interview transcript) and ON (Observation note)].

Theme 1: Finding patients and making contact

Individual characteristics and states of mind affect students go about finding and initiating contact with patients.

Everyone finds it really hard, it's just that some people are better managing around it (IT 7)

1.1 Finding patients

For all the students, the biggest challenge was the arduous process of finding patients to interview and examine. This was particularly difficult for some students, like this one:

... I get really anxious about going up ... I'm not exactly sure why that is, because once I'm in there, and I've started a long case, I find it really easy to build rapport and I can direct the interview ... but for some reason I am always apprehensive about going up. So sometimes I find excuses like oh it's patient meal-time, too bad, I'll have to go to the library ... So, I haven't been as proactive as other students about going up, I'm not sure, partially it's because I am quite introverted, and in the group I'm a bit of a loner ... But yeah when I force myself to do it, when I've got a deadline or something coming up, I can get it done ... Everyone else seems to be enjoying it and settling in ... I've always known that I'm a bit of an introvert ... but this year I've withdrawn a little more ... I am finding the environment a bit more difficult ... some people are so motivated and really driven ... I LOVE talking to patients, it's just the process of finding the patients. (IT 13)

It was common for students to refer to the strengths and limitations of personality type (theirs and others'), to introversion, discipline, initiative or motivation. Like this student, most also used a comparison with peers to highlight a point.

1.2 Learning from and with patients: 'Good patients', 'first moves' and 'hits and misses'

Not all hospital patients are accessible to students but the transcripts revealed the long list of criteria that students apply to what makes a 'good patient' for their purposes: willing to spend time talking with students, speaks English (well), not be taking a shower or cleaning their teeth, not be in pain, be well enough to bother, awake, not too frail, in a good frame of mind, not attached to too much equipment, not with another clinician or carer, not have '*contact precautions*', not have visitors or be eating a meal or on the telephone or fasting or delirious or too confused to have insight into their health problems, not having just been given bad news, and not be recently admitted after attempting suicide.

Once a 'good patient' has been found, students are still unsure how each patient will respond to them, so their '*first move [is] slow and full of disappointments*' (IT 3). Having made the first move across the threshold and proffered an introduction, it is not uncommon for the student to find the patient or their situation different from what they expected: the patient who was comfortable during the ward round may now be in pain; or, the patient who was obliging at the start of the day has now fasted for hours; or, the patient has spent time with another student and is now unwilling to participate. Cumulatively, students experience a series of '*misses*' and '*rejections*'.

Furthermore, many students mentioned and the Observer noticed that a student's encounter with a patient was often interrupted – '*by someone more important*' (ON p4). Clinical staff arrive to take the patient's blood or blood pressure, or to take the patient for therapy or investigations; domestic staff take or fulfil coffee orders, or wipe a side table. In themselves, these are of course, usual occurrences, but for the students, they are another layer of frustrated effort.

Obviously, some students manage these vagaries but for some, the whole process can be '*overwhelming*' (IT 14), even defeating and '*you finally give up*' [IT 7].

1.3 An awkward feeling that the relationship is unequal

The Observer was struck by the students' tentative, self-effacing way of introducing themselves and their purpose to the patients, typically a version of "Hello, I'm one of the medical students, my name is [NAME]. Is it alright if I have a chat with you just to find out why you're here and what's going on for you?" We found that underlying this tone, was a discomfiting sense of inequality in their interactions with patients:

* *'we don't have anything to offer the patient'* (ON p6);

* patients *'are not getting anything out of it'* and *'primarily it's a selfish exercise ... just pushing them around for my own learning.'* (ON, p9);

* it is *'an ethical thing'* (ON p5): patients feel they cannot say no to the large number of requests from students and medical trainees.

Some students manage this tension better than others: one just *'got over that after a while'* (IT 10); another was pragmatic, having concluded that it was acceptable to take patients' time as long as he 'followed up' by reading about the condition to learn more about each patient he saw (IT 5). Others had not dealt with the feelings.

Theme 2: The educational design: An imperfect navigation aid

Three problematic aspects of the design of these early clinical rotations were often mentioned or implied: not being 'attached'; the essential messiness of clinical learning; and, their focus on assessment. We found that when students are not – or do not feel – 'attached' to a person, group or place, there is potential for them to feel in the way, out of place, isolated as well as sensing that they are not learning enough. Secondly, features of the design of the clinical rotation leave many students to struggle alone to identify what to learn or how to learn. Thirdly, all the students interviewed had come to define assessment as the purpose of their patient-learning time and 'good' patients become the ones who help them achieve assessment tasks. Table 1 provides quotations to illustrate each of these features.

INSERT TABLE 1 HERE

Theme 3: Traversing difficult physical and social terrain

3.1 Barriers exist in physical and social structures

A common phrase students used was 'going up'. To begin the journey toward learning with, from and about patients, they must leave the familiar security of the student lounge, lecture theatres, tutorial rooms, library and (academic and administrative) staff offices on the ground floor. One student laughed about the experience:

'... you just keep going up the stairs 'til you get to the top of the building, and you're on level 9!

But early in the year she recalls *'... it was a bit scary in the hospital and I would just go back downstairs'*.

'Going up' is time-consuming and tiresome; students see each other on the stairs *'looking glum and heading down to the library ... or [they] just go home'* (IT12).

Between the 'going up' and the retreating down, there is the going around, *'going in'* to patients' rooms - small, shared rooms, beds and people divided only by curtains, barely room for two students. As discussed above, students referred to the particular challenge of 'going in' to face the unpredictability of the patient's situation and response to them. They did not comment, however, on what the Observer noticed: how the cramped space obstructed their movement, restricted their attempts to examine patients, necessitated unequal sitting or standing positions, and made confidential conversation impossible.

In describing the working world of medicine and hospitals, one Registrar noted in passing that it is difficult for the students because in this world, *'the whole process is so organic'* and nothing is *'usual'*. JB observed how in going up and going around and going in, students daily negotiate multiple intersecting schedules: their own timetables, patients' schedules, doctors' multiple roles and hospital routines. Also, JB's experience as a visitor (like a student) but wearing a lanyard means one is somehow accepted without question, sometimes feeling ignored, but always apparently presumed to have legitimate business. It is not

usual practice for staff to ask if the visitor needs help. Students did not raise this, but we can assume that it contributes to their experience of the hospital as unwelcoming.

3.2 *The culture of medicine: teaching and competitiveness*

Evident in the practices and behaviours that was noted by students, are hints of what they experience as the culture of medicine:

* Older doctors seem to have an *'ingrained obligation to teach'* (IT 10) so that *'... if you're standing there just watching what they do they'll just teach naturally'* (IT 2).

* But, *'some of the younger consultants don't seem to feel like that ... the culture is dropping off a bit'* (IT10).

* The milieu is *'competitive'* (IT 13), and the *'normal atmosphere'* of medicine is encourages *'bullying'* and *'show[ing] off'* (IT 9).

.Theme 4: Connections and reflections

Five sub-themes comprise this theme relating to the student connected to others, and reflecting on their learning.

4.1 *Belonging: The power of 'being attached'*

Students' perspectives on a complex of emotional and practical benefits of 'being attached' to a person or group contrast with their experiences of not being attached as discussed in Theme 2. A clinical attachment offers *'a key person to go to'* and *'better opportunities to learn'* about and with patients, and a sense of *'belonging'* and legitimacy of purpose. This finding is illustrated with quotations in Table 2.

INSERT TABLE 2 HERE

4.2 *Peer support*

Students distinguished between the different advantages of being in a pair/trio particularly *'in the first few weeks'* [IT9; IT 13]:

* *it's easier to walk in cold to a patient [IT12]*

** I just have so much fun every day because I picked my group well ... we do everything together. [IT5]*

** it's easier to approach the doctors, nurses and even the patients, and when the friends know the good patients, you can share that information. [IT 9]*

In addition to the students noting the support, the fun and the sharing of information, another student noted the more obvious advantages – observing each other's approaches to clinical interviews and examinations to learn themselves and perhaps give feedback [IT 11]. What students did not comment on which was obvious to the Observer was the practical help the student-observer or peer can provide the other: they draw the curtain, notice and fix an unsuitable seating arrangement, check the patient's comfort along the way, pass the patient their coffee. That is, the observer student can facilitate for the 'active' student pair a more congenial and potentially more meaningful interaction with the patient.

4.3 Connecting with patients through stories

A sense of meaningful connection with patients was a significant motivator for some students, for some the stand-out feature of the clerkship. They valued listening to and learning '*how people's lives can go, and how they can turn out*' (IT 10), and '*how much they have been through in their lives ... their issues, their family struggles or conflicts, um or you hear about them living with chronic medical conditions ...*' (IT 4). It is comfortable and enabling:

I am personally genuinely very interested in what the patients are saying, and I think they can gauge that, so as it goes on patients sort of start to tell their story more and they get really into it as well. So at that point I become much more comfortable talking to patients (IT 1).

Students are sometimes affected by hearing intimate and profound stories, sometimes being alone, '*right there*': when a patient cried about a lack of good care (IT 6); when an old man becoming tearful as he pondered going home, his active life over (IT 3); learning '*a lot about the human spirit*' from a young

woman with terminal cancer, a recollection that brought tears to the student's eyes (IT 10). Such experiences constitute some of the *'really important stuff'* that students learn when alone with patients (IT 11).

4.4 Helpful gestures from medical staff

Echoed in this study was the finding of earlier research in this setting that students have modest expectations of support from medical staff²⁴. Small gestures have significance:

Most of the time we are just thankful enough if we can go to them, that's good enough. Just saying things like 'If there's any way we can help, just come to us, we are more than willing to help'. ... that feels good when we are struggling to find a patient or find a cause of things and we try to find the Intern who has said those things to us. (IT 9)

Students also elaborated on the value of the University-appointed 'Clinical Skills Coach' roles for each small group for the year: they are important role models, *'dedicated teachers'*, cultural advisors (*"Say Hi to every single person. If you have that, people will recognise your face"*) (IT 5) and motivators and mentors (IT 8).

4.5 Recognizing self improvement

Students reflected on changes coming about in themselves:

better intuition –

'You learn how to read patients better, so I guess you develop a 6th or 7th sense about which patients will be good to talk to' (IT 2).

a new resilience –

'When I first started, I got a bit nervous going in, but now it's just sort of automatic. And if they don't want to speak with me, I just say "have a good day" and walk out and find someone else. So it's easier now.' (IT 4).

Improved judgement –

'At the beginning of the year, everyone we would meet it would be exhausting because this is a tertiary hospital and there's lot of rare stuff that we will probably never see again. Now we're more selective because you have to be.' (IT 12).

They are recognizing some of the important professional qualities that the clerkship can produce.

Discussion

We conducted a study of novice medical students undertaking their first clerkship in a large Australian hospital. Observations and interviews were used to investigate how the students went about making contact with patients. The study helps to illuminate the 'black box' of clinical learning and provides insight into why some students see few patients despite spending considerable time on wards. While we may have assumed that the central issue was the individual student, we now know more about their interactions with particular challenges in the hospital and educational environments that obstruct successful clinical learning.

We acknowledge two potential limitations to the transferability of the findings: typifying a qualitative study design using an ethnographic approach, a small convenience sample was used; also, the study was conducted in only one site which has features typical of large academic medical centres²⁵ but will not be typical of all clinical learning settings. As well, we acknowledge the potential for any interview data to be biased and to be limited by recall; our use of observations provided a check on what the students reported in interviews²². Despite these limitations, the study draws attention to what is working and what is not working for the students and the changes that could be made to aspects of the clerkship to improve the outcomes of students' supported participation in practice.

To draw attention to the transferability of the main themes, we considered them through the lens of the Experience-Based Learning framework⁸. This analytical turn enabled a focus on the outcomes, processes and conditions that exist in clerkships. The blueprint offered by the authors of the framework distinguishes three outcomes of experienced-based learning: real patient learning, affective learning and practical learning. In the clerkship we investigated, we found while students are in settings with 'real patients', there are obstacles to their interactions with these patients; also, the 'affective learning' related to

themselves is often negative and gaining knowledge and skills for clinical practice is limited. Solutions lie in the processes and conditions of the clerkship.

The blueprint identifies 'instructional design' and 'type of participation' as the two process elements. We found that the instructional design – that is, the ways of organizing opportunities for students to learn with, from and about patients – is a primary weakness in this type of clerkship. The actual time wasted and effects on students' states of mind of having to find their own patients to clerk is a major barrier to 'real patient' learning and needs to be addressed. At least at the beginning of the clerkship, students need to be actively provided patients to clerk, these interactions need to be supervised and subsequent interactions monitored. This approach would raise the level of supervision from unsupervised to indirect or even direct¹⁹ and the level of participation from observer to actor in rehearsal¹⁸. That is, while the physicality of the hospital and the culture of clinical medicine may not be easily changed, the opportunities provided to students can be improved and increased.

The Dornan blueprint proposes that students participate and learn or achieve the outcomes when a complex of support is provided: pedagogic, organizational, affective. The view through this lens clarified how the conditions of clerkships of the type we investigated could be improved so that the outcomes might be achievable by all novice students.

Pedagogic support: students struggle and some suffer the burden of asking patients if they can interview or examine them, their invitations and introductions are usually tentative and unconvincing. They need planned curriculum in this area: knowledge shared, modeling, rehearsal, feedback and ongoing supported practice during their early clinical rotations. Such educational support would help them manage the unpredictability of patients' states and reactions to them²⁶. We found that students are not aware of knowledge from research of how patients value time with students²⁷. This knowledge can be built into the curriculum both prior to and during the early clerkship, including reinforcement by junior and senior doctors on the wards.

Another key area of support that students need is clarification of what to learn, how much to learn and how to learn from the vast messiness that characterizes

clinical knowledge²⁸. This adds to the chaos of the learning environment for them²⁹. Students need more help too in extracting and synthesizing the learning available in their encounters with patients. A student's 'basket of sock' analogy draws attention to this weakness that placement leaders and teaching staff can be reminded to address at multiple points in the early clerkship.

In terms of organisational support, we found that students have a sense of relying on the good will of individual medical staff rather than assuming that staff have a responsibility to teach, guide and support them. It is likely that this originates in the particular nature of relationships between universities and hospital staff in Australian and UK health systems, particularly the absence of payment for teaching³⁰ and their identification with their medical specialty college. If the systemic cause of the problem cannot be fixed, extra effort is required from placement leaders to encourage and support medical staff in their contact with students.

Regarding the condition related to affective support, the study showed the need to support all students but provide particular – or extra – affective support for some. The local impetus for our study of this clerkship was concern about the number of students who self-identified as lacking confidence in seeing patients, and reports that some students see very few patients during their clinical rotations. We were surprised to find how negatively some students felt about their time in the clerkship and their experiences of making contact with patients. Like Dornan we conclude from the evidence, that clinical education leaders in clerkships must continue to strive 'to make learning environments affectively supportive'⁸(p737). As cited early in the findings, some students manage the complexities and difficulties, but others struggle and some suffer. We have proposed structural changes above.

It is clear too that students need informal support from significant (medical) others, they need to feel they are welcome, that they belong and that they have a legitimate reason to be in the clinical areas. Calling on Sheehan's work, this is about students' sensing that they fit in and can get along¹⁴ with people they encounter. This is consistent with the increasing recognition in medical education of the effect of emotions on learning³¹ and the new understanding of

emotional intelligence ready for application in our field³². Our study emphasises the importance of providing individualised affective support in preference to dismissing the struggling students as soft, spoilt and needing to just toughen up³³ – or assuming they will take up a specialty that does not require patient contact.

Conclusion

This study demonstrates that to successfully navigate the clinical environment medical students in early clinical clerkships require explicit education about patients and about themselves and about how to interact with the complex health care environment. They also need sound structures for their learning, individual supervision of their early practice and active affective support particularly informal support. Where these conditions are inadequate or unreliable, some students struggle and lose their way in the complex hospital environment. One challenge is to respectfully identify and appropriately support those students.

Sub-theme	Explanation and Illustrative Quotation
Not being 'attached'	<p><i>... you can very easily just loiter up there for heaven knows how long and not do anything, and just feel like you get nothing out of it ... Towards the beginning of the year, we had a foundation term when we weren't attached to any unit, we were just allocated wards to be on. There wasn't anyone looking after us per se ... it was quite easy to feel a bit isolated on those occasions because ... everyone had a job to do and a lot of students didn't think it was appropriate to sort of get in the way of someone doing their job ... and by virtue of being there you're just slowing them down and a lot of students feel uncomfortable about that ... (IT 2)</i></p>
The messiness of clinical learning	<p>Medical knowledge is vast:</p> <p><i>... we're adults and they don't have to spoon feed us, we can just do it, but at the same time, medicine is such a vast thing and there is so much to know it would be helpful to know what we need to know other than you need to know everything. ... that's what I struggle with, you just get overwhelmed because there's just so much you don't know where to start and for quite a while ... I was just paralyzed and I didn't know</i></p>

	<p><i>where to start because there was just too much.</i> (IT 14)</p> <p>Clinical knowledge is hard to organize:</p> <p><i>I've made this analogy for what it's like learning this year. You are carrying a big pile of socks to the laundry and one drops off and it's like and then another one drops off and you learn something new and then another one drops off. The more you hold, the more socks fall out.</i> (IT 10)</p> <p>Not all students manage without supervision and guidance:</p> <p><i>'What's great is the freedom we've been given in the hospital, you can go anywhere, you can see anyone, doing anything.'</i> (IT12).</p> <p><i>'How much freedom they've given us to go off and do whatever, no one really cares what you are doing for the entire day.'</i> (IT 14)</p>
Students focus on assessment	<p>Almost all of the students said they were there <i>'to find a long case'</i> - to find a patient who would give them 60 or 90 minutes to practise taking a full history and do some physical examination.</p> <p>Sometimes they were <i>'finding someone for a miniCEX'</i> or <i>'a short case'</i>.</p> <p>Others were <i>'finding a patient for a tutorial'</i>.</p>

Table 1: Problems with the educational design

Advantage	Illustrative Quotation
A key person	There is someone who is <i>'responsible for you'</i> , to <i>'offer to help'</i> and <i>'guide'</i> (IT 3)
Better learning with patients	There is potential for <i>'continuity of experience'</i> with patients (IT 2)
A feeling of belonging generated by physical setting	The student has a feeling of <i>'belonging'</i> (IT 7) and community in returning to the familiar medical huddles at the staff station (IT 10)
Efficiency for learning	It is more efficient because students know patients' schedules (IT 12); it is less <i>'hit and miss'</i> (IT 7)

Engaged, and legitimate and part of the team	Students are ' <i>more engaged in providing their care</i> ' they ' <i>felt more legitimate ...</i> ' around patients (IT 10)
	There is a special sense of ' <i>legitimacy</i> ' when they can say " <i>We've been sent here to do a little test with you</i> " [ON p21] or when they have ' <i>a real doctor</i> ' tell the patient " <i>This is a student doctor who's with me today</i> " because the patient ' <i>never argues</i> ' with that (IT 3)
	Students feel ' <i>part of something, part of the team</i> ', and ' <i>having a reason for being there</i> ' (IT 10)

Table 2: The benefits of being attached

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