Student perceptions of GP teachers' role in community-based undergraduate surgical education: a qualitative study

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DECLARATIONS

Competing interests
The authors are involved in the delivery of the course being evaluated. No other competing interests to declare

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Ethical approval
No formal ethical approval was sought (as this is an evaluation study) but the work was carried out in accordance with the Declaration of Helsinki, including, but not limited to there being no potential harm to participants, the anonymity of participants is guaranteed, and the informed consent of participants was obtained

Guarantor
GE

Summary

Objectives To evaluate medical students' perceptions of a new community-based surgical module being delivered as part of a third-year clinical methods teaching (CMT) course at Imperial College, London.

Design A qualitative study using focus group interviews with medical students who had recently completed the surgical module. Focus group discussions were recorded, transcribed and analysed to identify key categories that reflected the positive and negative aspects of the student's perspectives.

Setting Imperial College, London

Participants Two groups of fourth-year medical students were invited to participate in the focus groups. The first group consisted of seven students from the surgery and Anaesthesia BSc course. The second group consisted of a random sample of five students from other BSc courses at Imperial College.

Main Outcome Measures These were not defined pre-study as the purpose of the study was to obtain student perceptions of the surgical module. Facilitators were given guide questions to aid consistency and prompted discussion where required using an inductive approach to the topics discussed by the students.

Results Student opinions of surgical teaching delivered in the community compared favourably with the surgical teaching delivered in hospitals. Students identified the key benefits as: having protected time to learn, regular access to suitable patients, and teaching that was more learner-centred. Challenges identified by students included the GPs' lack of specialist knowledge and teaching that was dictated by individual interests rather than the syllabus.

Conclusions Community-based teaching has been widely used to deliver teaching traditionally taught in hospital settings. However, surgical skills are still taught largely by surgical specialists within hospitals. Our study suggests that students are receptive to GPs teaching surgical topics in the community and perceive GPs as competent

teachers. This study suggests that there may be benefits in delivering traditional surgical modules in community settings. Providing training for teachers may be a key factor in ensuring quality of surgical teaching for all students.

Contributorship
Niamh O'Carroll and Paul Booton conceived the original idea of the evaluation; SP and GE developed the idea and researched, planned, recruited and carried out the workshops, then analysed the data. SP wrote the paper and GE provided guidance and help with the editing

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Introduction

The General Medical Council's Tomorrow's Doctors report in 1993 emphasized the need for more undergraduate teaching to move from its traditional hospital setting into the community.[1] The reorganization of the NHS[2] meant that students were struggling to gain sufficient experience in managing common health problems in secondary care.[3] It was also recognized that medical education should have more relevance to the health needs of the community.[2]

Since then, UK medical schools have increasingly used community-based teaching to deliver aspects of their curricula,[4] including the patient experience, management of chronic diseases and communication skills. More recently, community-based teaching has expanded to include the teaching of basic clinical skills, which have traditionally been taught within hospital settings.

We were interested in providing surgical teaching in the community setting because opportunities for surgical teaching in traditional hospital settings are decreasing. One likely reason for this is that advances in surgical procedures and anaesthetics over the last decade have led to faster recovery times for patients, earlier hospital discharges, and increased day case and outpatient management.[5] The introduction of surgical teaching in the community is one possible solution.

In our review of the literature, we could find no published reports of general surgical modules specifically designed for, and delivered in the community setting. Parle *et al.* and Bryant described how students who were attached to general practice during their medical firms also learnt opportunistically about abdominal pain and peripheral vascular disease, in addition to medical symptoms and signs.[6,7] Furthermore, Nicholson *et al.* described a community-based obstetrics and gynaecology module that was delivered in the fourth year, which was well received by students.[8]

Community-based learning has been reported by students at University College London[3] and Sheffield University[9] to be particularly appropriate for learning about communication skills and the holistic care of patients. In addition, students report that community teachers' enthusiasm and teaching methods greatly enhance the learning experience.[3,9] Clinical skills acquisition is perceived to be equally well learned in either setting.[3]

However, studies have suggested that whilst students perceive that community-based learning is particularly appropriate for certain learning, hospital-based learning is still perceived to be advantageous for learning about specialties and the management of acute conditions.[3] This study was planned to explore the student views of a surgical module designed for and delivered in the community setting.

Educational setting

Third-year medical students at Imperial College are taught basic clinical skills (Clinical Methods Teaching, [CMT]) by general practitioners in the community. Small groups of students (4–5 per group) meet their GP teacher once weekly for 2 hours of protected teaching for 5–7 sessions per term. The rest of the time they spend attached to a medical or surgical firm in a hospital. At the end of the third year, they sit a summative Objective Structured Clinical Examination (OSCE) which tests their history, examination, communication and basic procedural skills in 12 stations.

In 2007–8, GP teachers were asked for the first time to teach a 3-session surgical module. The module covered history and examination skills related to common surgical presentations in the community setting. These included assessing the acute abdomen, pre and post-operative care in the community, hernias, vascular conditions and lumps. Key learning outcomes based on the surgical undergraduate curriculum were drawn up, and detailed lesson plans included in the

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Teacher's Guide. Teachers were directed to online learning resources including demonstration videos of surgical examinations. However, there were no specific teacher training sessions for the module.

The Course Lead conducted a short questionnaire survey (unpublished) to evaluate the GPs' perspectives on their new role. This survey suggested that GP teachers were generally confident in their ability to teach surgical skills but would value a refresher course, and that they sometimes found it difficult to recruit suitable patients because of the short waiting times for surgical treatment.

Aims

The purpose of this study was to describe and evaluate the students' perceptions of the GP teachers' role in the delivery of surgical teaching in the community.

Methods

We used focus group interviews to gather students' perceptions of the course. Focus groups have been used effectively for programme evaluation in higher education[10,11] and are particularly useful in obtaining information about the student's perspective.[12]

Sampling

We used purposive sampling to select our students for two focus groups to stimulate discussion.[13] For the first focus group, email invitations to participate were sent to students on the fourth-year Surgery and Anaesthesia BSc course at Imperial College, London in the Spring term of 2010. Four male and three female students volunteered. For the second focus group, we selected a random sample of students from other BSc courses at Imperial College, London, and two male and three female students volunteered. All twelve students had completed the surgical module as part of their third year CMT teaching the preceding year. We hypothesized that students with an interest in surgery might be more inclined to recall and engage in discussion about their surgical learning experiences during the previous year.

All students were asked to sign a consent form for future use of anonymized clips of the recorded discussion for educational purposes and were informed that selected anonymized quotes could be used in future publications.

Focus groups

The students were given a copy of the surgical module curriculum and learning outcomes as a reminder. We also gave the facilitators guide questions to aid consistency across the two groups. The questions were based on the relevant literature that describes the benefits and challenges commonly encountered in teaching community modules, on the experiences of the GP Teachers, and on topics thematized in a meeting between two GP Educators and a Social Scientist; Graham Easton (GE), Sian Powell (SP) and Yannis Pappas (YP), respectively. However, the facilitator's role was primarily supportive, prompting discussion where required, using an inductive approach to the topics discussed by the students.

GE facilitated the first focus group and SP facilitated the second. The first focus group was digitally recorded; the second was manually recorded by GE who was observing.

Analysis

The first focus group recording was 54.35 minutes long and was transcribed by The Transcription Company. The second focus group was 48 minutes long and was manually transcribed by GE. Both transcriptions were manually analysed by both GE and SP, independently of each other, using open coding to develop thematic categories that reflected the positive and negative aspects of the students' perspectives.

GE and SP compared the results of the analyses and there was minimal discrepancy. Where there was initial disagreement, this was usually over semantics and was resolved after discussion.

The authors compiled a coding framework from the first focus group transcript that they used as a reference to analyse the second transcript.

After the second analysis it appeared that no new categories were emerging, despite the differences between the two focus groups and interviewers.

Face validity was tested with current 3rd year students and with GP teachers of the surgical module, at subsequent teacher training days.

Table 1
Categories with their positive and negative aspects

CATEGORIES	*POSITIVE*	*NEGATIVE*
1. STRUCTURE/ ORGANIZATION	• Well-structured sessions/terms • Well-organized sessions • Coordinated with lectures and hospital firms • Signposting	• Out of order, jumping from one topic to next • Unplanned • Waffly and woolly
2. CURRICULUM/SYLLABUS	• Examination and history skills (not procedures) • Predictable (sticks to syllabus) • Learning outcomes clear	• Dictated by teacher's interests • Unpredictable (deviates from syllabus) • Not pitched at appropriate level
3. EXAMS/OSCEs	• Exam-focused • Teacher is examiner • Real medicine	• Topics unlikely to come up in exam • GPs real life vs. artificial OSCE
4. PATIENTS	• Regular access to patients • Patients willing to be examined • Interesting patients • Practicing on each other	
5. TIME	• Protected teaching time	• Too many topics for time
6. TEACHING APPROACHES	• Student-centred • Reviewing previous sessions (continuity) • Brainstorming • Quizzes • Typed references • Handouts	• Passive (e.g. sitting in front of a laptop)
7. FEEDBACK	• Safe setting (small groups) • Critical Feedback • Peer feedback • Patient feedback	• Lack of critical feedback • Difficult giving critical feedback to teacher
8. TEACHER CONFIDENCE/ KNOWLEDGE	• Teacher admits lack of knowledge • Teacher finds out answers with students at the time • Enthusiasm more valuable than knowledge	• Teacher uncomfortable with lack of knowledge • Teacher asks students to find out answers later

All the themes were meaningful to subsequent 3rd year students and GP teachers, offering some evidence of face validity.

Results

Eight key categories were elicited from the transcripts, and the positive and negative aspects of each are described (Table 1). These aspects will now be discussed and illustrated using quotations from the interviews.

1. Structure and organisation of teaching

The students found that well-structured, well-organized sessions that had clear objectives and

followed the syllabus were more valuable than teaching which jumped from one topic to the next.

'I think with our GP we did the topics on the list. They were nicely structured and sessions were really great.'

The GP sessions occur once a week for the duration of a 5–7 weeks attachment to a medical or surgical firm at a hospital. Some students felt that coordinating the teaching in the community with the hospital lectures would have helped consolidate the learning.

'I think that what would have been really good is if it was somehow collaborated between the GP's so that we got that week the lectures at the same time that we got it at the GP; that would have made it much more organized.'

2. Curriculum

The students preferred their community teachers to stick to the agreed syllabus and not talk about their pet topics.

'My GP had a specialist interest in dermatology so we spent about 3 weeks being taught about dermatology. So I think it's quite important that GP's are told that they need to follow a structure, maybe not rigidly but that this week we will be covering abdominal examination and the following week we will be covering vascular disease so that they don't go off and start talking about dermatology, which isn't really that useful for us.'

3. Exams and OSCE's

The students were mindful of the impending exams at the end of the year, and their perceptions of their learning experiences were often influenced by how well they thought their teaching had prepared them for their exams. Consequently, they all valued GP teachers who were also examiners because the teaching was more likely to be exam-focused, and pitched at the appropriate level.

'I think if the GP's knew more about how OSCE's were structured…I mean I don't want to assume they have to teach you how to pass exams but it would be helpful if they knew what the standard was.'

4. Patients

Students found patient-centred teaching the most valuable, especially if they were given time to practise first as a group, then have a discussion after each being given the opportunity to examine the patient in turn.

They found that examining patients with interesting signs was particularly useful as they felt they tended to remember more when they learnt from a patient with a memorable condition. They also appreciated the fact that GPs have regular access to patients, and so were able to bring in patients who were well, and who were willing to be examined, in contrast to hospital patients who they felt often didn't want to be disturbed by students, or who were too seriously unwell.

They also appreciated the exposure to patients with chronic health conditions that they otherwise wouldn't see in hospital settings, and who

….'were willing to tell you their whole life story.'

However, despite preferring to see patients, students also found examining each other useful as an alternative, with the teacher supervising and providing feedback.

'I actually found it very useful examining one another, we would do it all under timed circumstances on one person in our group.'

5. Time

Students particularly valued the protected teaching time offered in their community teaching. Their experiences were that hospital consultants, in particular surgeons, were often far too busy to teach.

'Consultants are never going to sit and teach you, especially on a surgical firm. Consultant surgeons tend to be extremely busy, as do registrars.'

'It's hard to find an FY1 on the wards who'll actually take the time out to sit down with you, tell you about their patients, a bit about their history, and talk to you about it afterwards. He or she has usually got more patients to see afterwards.'

6. Teaching approaches

Students unanimously agreed that learner-centred teaching was the most useful for them as it could be based around their specific needs as a group.

'The second two (GP's) were great because they really listened to what we wanted to learn, and they told us what we were going to do and asked if we wanted to change it, or what we felt could be done as extra.'

They valued the continuity of teaching in general practice whereby the previous session would be briefly reviewed at the start of each new session. They preferred the delivery of the teaching to vary and to use different resources, for example quizzes, handouts and references.

'My GP had a quiz; she had pictures of different skin conditions and the prize at the end I think we had some chocolates. No – it was crispy doughnuts which worked well because we had an incentive.'

In contrast, students found passive teaching dull and uninspiring;

'She gave us a laptop, press play and that was it. I was like "I've already done this at home, I've already seen it, and I've already made notes, that's not really useful."'

7. Feedback

The students found that the safe setting in GP practices created by being in small, familiar groups with the same tutor consistently was ideal for being able to give and receive constructive feedback which they valued enormously, not only from their teacher, but also from their peers and the patients.

'I also found that having feedback from the other members of my group was actually more productive than having him tell us anything, and the patient would tell us what we're doing wrong and what they thought was good.'

8. Teacher confidence/knowledge

Students recognized that their GP teachers may not have the detailed knowledge about surgical conditions that hospital specialists have. However, they felt the learning experience was still valuable as long as GP teachers admitted any gaps in knowledge and involved the students in proactively finding out the answers at the time.

'I think we all thought it was fine; you can't have a doctor who knows everything, It's quite nice that she cared about us enough to check it out then and there as opposed to just saying "I don't know, go look it up."'

Enthusiasm in a teacher was perceived to be more valuable than knowledge and, as a result, trainee GP's were deemed to be just as effective as their more experienced colleagues because they tended to be more enthusiastic about teaching the students.

'My GP was the first year of GP training, whatever it's called…she wasn't very experienced but I think she had great intentions and she was very keen to teach, similar to what you see in hospitals.'

Limitations

There are factors that may limit the transferability of our study findings.

With twelve students in two focus groups, it is possible that we didn't capture the full range of student views. In particular, as we invited some students with a special enthusiasm for surgery, this may have biased the findings. Other potential biases include the characteristics of GP teachers which could potentially influence their teaching, such as gender, previous training or age.

To add validity to our findings, we could carry out further focus group interviews until we are confident that theoretical saturation has been achieved. We could also consider triangulation of our methods using questionnaire surveys and interviews, and of the researchers by having colleagues carry out and analyse future interviews. This may address some of the biases already described.

Both facilitators were involved in delivering the surgical module: GE as course lead and SP as a GP teacher. Despite reassurances about confidentiality, this may have inhibited the students' discussions. We also acknowledge that as major stakeholders in the module, our analysis may be subject to a positive bias.

Guide questions were prepared for the facilitators to use if triggers were needed in the discussion, but these were not piloted beforehand to test their efficacy at stimulating discussion.[14]

Discussion

We believe this is the first published account that examines students' perceptions of community-delivered surgical teaching.

Our results suggest that expanding the delivery of community teaching in this way is acceptable to the students, and offered significant advantages compared to traditional hospital teaching. These included having protected time to learn, being in small groups that allowed critical teacher and peer feedback and having teaching that was more learner-centred.

A particular advantage of community surgical teaching over hospital teaching seemed to be the availability of patients. The students described how they often felt uncomfortable approaching patients in hospitals as they were more often acutely unwell. In addition, in community settings patients were also willing to attend the surgery solely to be seen by the students.

However, the students also described challenges that may exist with teaching a surgical module within the community. These included the lack of specialist knowledge that GPs have, and a possible lack of consistency between individual GP teachers. Some teachers were perceived to deliver structured planned sessions in keeping with the curriculum, but others may deliver unplanned teaching dictated by their own interests.

Implications

The study suggests some areas for further development of our course, in particular the training needs of our GP teachers. We now provide annual workshops on surgical examination skills from our hospital surgeon colleagues. We are also developing our website further for teaching resources, including quizzes and photos, which all GP teachers can use. We also give all new GP teachers a demonstration of an OSCE station so that they are familiar with the examination, and we encourage new teachers to become examiners once they have started teaching.

It would be interesting to conduct a follow-up quantitative study to test out our initial findings of GPs as effective teachers of surgery. One possible approach would be a comparative study, comparing OSCE performance in a surgical station between two randomized groups of students, one taught using the surgical module, and another taught non-surgical topics during the same GP sessions. Both would also receive their usual hospital surgical teaching. However, there would be many challenges to a study of this sort, in particular accounting for all the possible biases; such as differences in teachers between groups, and variations in hospital surgical teaching. Another limitation is that OSCE performance is influenced by many factors, not just the effectiveness of teaching.

This research describes for the first time students' perceptions of the role of community-delivered surgical teaching and contributes to the debate about the evolving nature of community-based teaching. This work could help guide medical schools in the development of their curricula to include community-based teaching modules traditionally considered to be outside the scope of community-based teaching.

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