

Medical students' perceptions of bedside teaching

D. Gray, O.I. Cozar and J. Lefroy, School of Medicine, Keele University, UK

ABSTRACT

Background: Bedside teaching is recognised as a valuable tool in medical education by both students and faculty. It is frequently delivered by consultants, however junior doctors are increasingly engaging in this form of clinical teaching and their value in this respect is becoming more widely recognised. The aim of this study was to supplement work done by previous authors who have begun to explore students' satisfaction with bedside teaching, and their perceptions of the relationship with the clinical teachers. Specifically we aimed to identify how students perceive bedside teaching delivered by junior doctors compared to consultants.

Methods: A questionnaire was distributed to all year 3 medical students at Keele University via e-mail. Responses were submitted anonymously.

Results: 46 students responded (37.4%), of whom 73.3% said that they felt more comfortable having bedside teaching delivered by junior doctors than consultants. Consultants were perceived as more challenging by 60% of respondents. Students appeared to value feedback on their performance, trust the validity of taught information, and value the overall educational experience equally regardless of the clinical grade of the teacher.

Discussion: Student preference does not equate to the value they place on their bedside teaching. Junior doctors are perceived as being more in touch with students and the curriculum, whilst consultants are perceived as having higher expectations and being both stricter and more knowledgeable. The clinical teacher's approachable manner and enthusiasm for teaching are more important than clinical grade, as is the ability to deliver well-structured constructive feedback.

BACKGROUND

Bedside teaching (BST) is a valuable teaching modality in medical education¹ and is favoured amongst medical students², yet it can be time consuming, and with demands on the time of consultants, junior doctors are increasingly being recognised as a valuable teaching resource^{3,4}, still there are reports that junior doctors are underused as clinical teachers^{3,2}. 'Junior Doctor' in this context refers to any Doctor in postgraduate training who is not yet a Consultant or a fully qualified General Practitioner.

There are a number of benefits to near-peer teaching by junior doctors, including the fact that they are generally perceived by students as being more approachable than consultants³, and are thought to have a better appreciation of the students' perspective, including understanding their anxieties and struggles^{5,2}.

In addition, students perceive junior doctors to not only have adequate knowledge to teach medical students, but also that they have a better knowledge of the current curriculum and assessment requirements⁶.

Existing literature suggests that students consider clinical seniority to be a desirable characteristic of the ideal bedside teacher⁷, though students also identify good communication skills, the ability to deliver constructive feedback, and an approachable demeanour to be important determinants^{7,8}. Although students find an adequate presence of senior/consultants to be beneficial⁹, they also value the availability of junior doctors for teaching¹⁰.

BST is an integral component of the undergraduate MBChB curriculum at Keele, and is utilised in increasing amounts across all five years of study. It is delivered to students on clinical attachments in a variety of clinical settings from hospital wards to outpatient clinics and GP surgeries, and may be facilitated by consultants, junior doctors in the clinical areas or by dedicated clinical teaching fellows (CTFs). CTFs are junior doctors at various stages in their postgraduate clinical careers, who have taken a year out of clinical training in order to teach medical students.

We have reflected on how students perceive BST delivered by junior doctors and specifically, whether students place as much value on the educational experience as they would if taught by a consultant. This study set out to supplement the work done by previous authors exploring student satisfaction with bedside teaching, and perceptions of relationships with clinical teachers. One question that appears to remain unanswered in the literature is how students perceive BST by juniors in comparison to consultants, therefore we aimed to ask medical students to make and explain this comparison.

METHODS

After obtaining a peer review of the project proposal followed by ethical approval from the Keele University school of Medicine ethics committee (SOMEK), an invitation to complete a SurveyMonkey® questionnaire was e-mailed to all year 3 medical students at Keele University (123 students), with a follow up e-mail reminder sent out after 2 weeks.

The questionnaire (*Figure 1*) was designed to elicit students' perceptions of BST by specifically addressing a number of individual factors identified in the existing literature^{7,8} as important to BST, namely feeling supported, feeling challenged, receiving feedback on clinical performance, and trusting the information delivered. Overall preference for, and value attached to consultant and junior doctor bedside teaching were also directly compared.

Questionnaire responses were analysed by simple comparative statistics. Two authors (DG and OC) performed a thematic analysis¹¹ of the free text explanations of each question's responses and then discussed their significance.

RESULTS

A total of 46/123 students (37.4%) responded. The numeric results are represented in *Figure 2* along with a selection of free text responses which represent common themes from all collated responses in *Figure 3*.

The majority of student respondents (73.3%) reported feeling more comfortable having BST delivered by a junior doctor than a consultant, whilst 22.2% said that they perceive no difference between juniors and consultants in this respect.

Consultants were perceived as being more challenging by most students (71.1%), with 24.4% saying that they perceive no difference.

Regarding feedback on their performance, 68.9% of students reported no difference in the value they place upon feedback delivered by juniors and consultants, with most of those who did state a preference, preferring consultant feedback (22% vs 8.9% for juniors).

Trust in the validity of taught information by consultants and juniors was reported as equal by 60% of students, with 31.1% trusting information from consultants more, and only 8.9% trusting Junior Doctors more.

The educational experience was said to be valued equally by 62.2% of students regardless of whether it was delivered by a junior doctor or consultant.

When asked their overall preference with respect to BST, the responses were roughly evenly split, with 40% reporting no preference, 35.6% reporting a preference for junior doctors, and 24.4% stating a preference for consultants.

DISCUSSION

Reasons given for feeling more comfortable being taught by a junior doctor were that juniors feel more approachable and less intimidating than consultants, and that juniors are perceived to better understand the student perspective and to empathise with the student. This correlates with observations in existing literature^{2,3,5}. Those students (22.2%) who said that they perceive no difference in this respect cited the demeanour, attitude and approachability of the individual clinical teacher as being more important than clinical seniority, again in keeping with the literature^{7,8}.

Reasons given for students feeling more challenged by a consultant included their tendency to formality, strictness and higher expectations. Students reported a desire to impress consultants, but found that inconsistency in teaching delivered by consultants made it more challenging than that delivered by juniors, who students perceived as more standardised in their teaching approach. Some students perceived that juniors are more familiar with the current curriculum and assessment requirements, whereas consultants may wish to discuss topics which are not part of the student curriculum, a finding which is in agreement with existing literature⁶. Students who reported no difference in how challenged they felt stated that this depends more on interpersonal attributes of the teacher, and how well they engage with students and the teaching process.

Respondents overwhelmingly reported that the most important elements of good feedback are content and delivery, stating that they want feedback to be constructive, and the feedback provider to demonstrate that they have applied reasonable thought and consideration. Of those students who stated a preference, most favoured consultant

feedback, the reasons being that consultants are perceived as “more experienced and knowledgeable”.

Students who reported that they trust the validity of taught information from juniors and consultants equally explained that all qualified doctors “should have sufficient knowledge” to teach medical students. Those who reported more trust in consultant teaching perceived consultants to be “more experienced and knowledgeable”. Interestingly, the minority of students (8.9%) who said they trust junior doctors more stated that this is because juniors are often “more up to date” with knowledge and more aware of assessment requirements. This is in keeping with existing literature⁶.

Most students reported that they value the educational experience of BST equally regardless of the clinical grade of the teacher. Since more students felt comfortable with a junior doctor, and more felt challenged by a consultant, this suggests that there is a balance to strike between making the student feel comfortable and challenging them enough in order to help to optimise the educational experience.

Interestingly, overall preference of clinical teacher didn't correlate entirely with how much students value the educational experience (62.2% of students rated the value of the educational experience to be equal, yet 60% stated a preference). This suggests that different factors influence preference from those influencing the value of the educational experience. One can speculate that feeling comfortable in a BST environment influences preference, whilst how challenged a student feels has more influence on the value placed on the educational experience, and our results would support this view.

Limitations: The low response rate is a source of potential bias. We have however obtained a spread of opinion within this cohort which provides some useful insights. This is a single centre study and there is potential for results to be skewed by local curriculum design and teaching practices. Participants were also all from the same year of study. We have therefore not identified whether student perceptions change with increasing undergraduate seniority and experience.

CONCLUSIONS

This study appears to substantiate some elements of existing literature as well as providing insight into medical students' perceptions of BST, and clinical teachers. Preference for clinical teachers does not entirely correlate with the value placed on the teaching obtained. Junior doctors and consultants contribute different amounts of challenge, knowledge and reassurance to bedside teaching, but both are valued as teachers. The authors would recommend that BST should continue to be delivered by a combination of consultants and junior doctors, including CTFs or equivalent, and suggest that it is important for clinical teachers both juniors and consultants to be adequately trained in order to deliver effective and acceptable teaching at the bedside. Training for clinical teachers might include peer observation and feedback focusing on awareness of the importance of teachers attitudes and behaviours, and their implications for the learning environment.

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Figure 1:

Q1: When you are observed performing clinical skills such as history taking or physical examination of a patient, do you feel more comfortable being observed by a junior doctor or by a consultant clinician?

- More comfortable being observed by a junior doctor
- More comfortable being observed by a consultant
- No difference

Q2: What are your reasons for this?

Q3: When you are observed performing clinical skills such as history taking or physical examination of a patient, do you feel challenged more being observed by a junior doctor or by a consultant clinician?

- More challenged being observed by a junior doctor
- More challenged being observed by a consultant
- No difference

Q4: What are your reasons for this?

Q5: When you are observed performing clinical skills such as history taking or physical examination of a patient, do you value the feedback on your performance more when being observed by a junior doctor or by a consultant clinician?

- Value the feedback more from a junior doctor
- Value the feedback more from a consultant
- No difference

Q6: What are your reasons for this?

Q7: When you have bedside teaching do you trust the validity of taught information more when being taught by a junior doctor or by a consultant clinician?

- Trust the validity of teaching more from a junior doctor
- Trust the validity of teaching more from a consultant
- No difference

Q8: What are your reasons for this?

Q9: When you are observed performing clinical skills such as history taking or physical examination of a patient, do you value the educational experience more when being observed by a junior doctor or by a consultant clinician?

- Value the educational experience more with a junior doctor
- Value the educational experience more with a consultant
- No difference

Q10: Given the choice, would you rather have bedside teaching delivered by a junior doctor or by a consultant clinician?

- Prefer bedside teaching delivered by a junior doctor
- Prefer bedside teaching delivered by a consultant
- No preference

Figure 2:

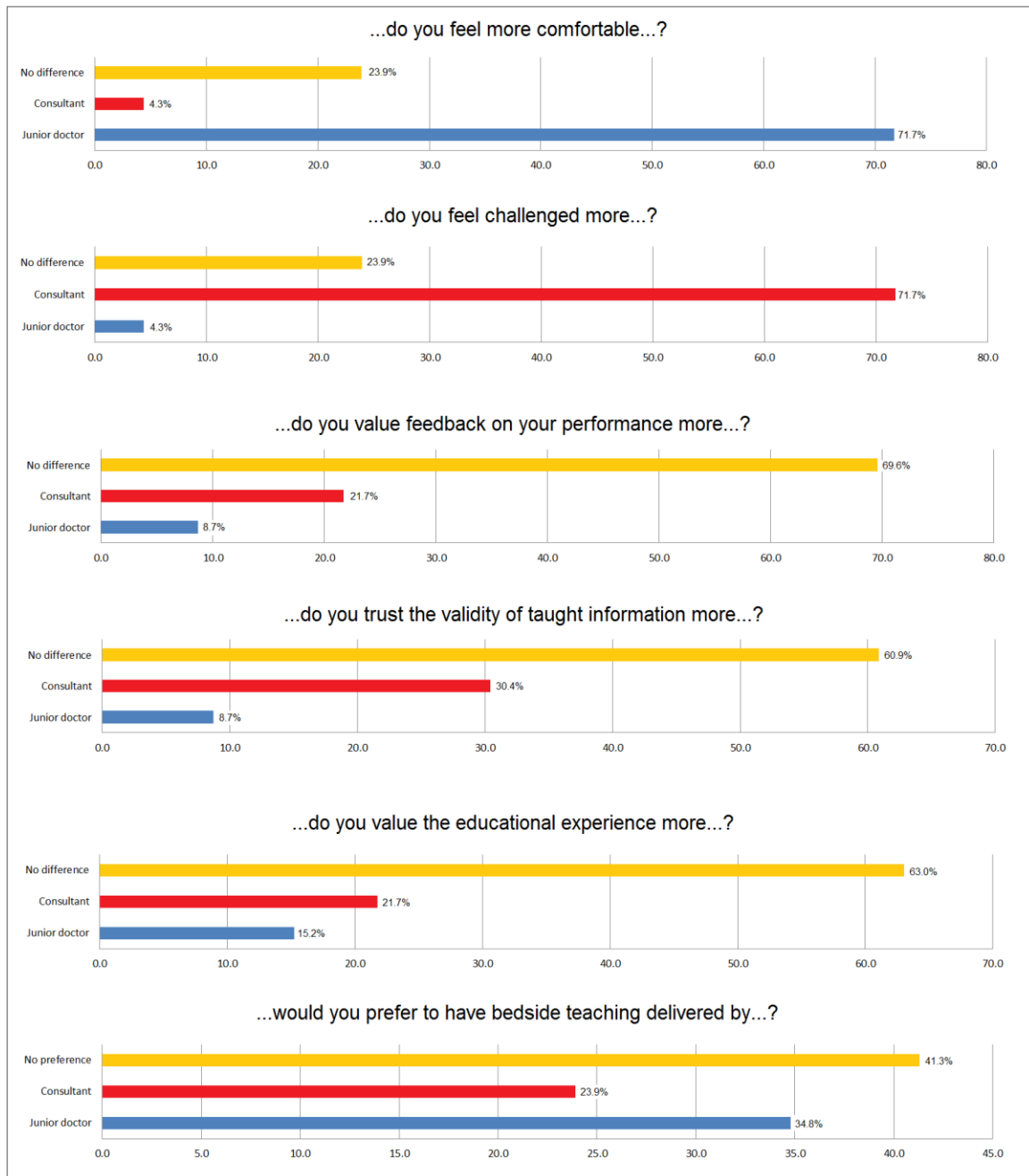


Figure 3:

Students feel more comfortable being observed by a junior doctor:

- *“The environment tends to be a bit more relaxed” (Student 1/46)*
- *“...seems more like peer to peer” (Student 6/46)*
- *“They are usually more approachable.” (Student 8/46)*
- *“...you can relate better to junior doctors who understand the challenges faced by medical students.” (Student 31/46)*
- *“The age/skill gap is smaller so they empathise more.” (Student 35/46)*

Students feel more challenged being observed by a consultant:

- *“Consultants tend to be more critical” (Student 1/46)*
- *“They tend to ask more challenging questions” (Student 7/46)*
- *“Consultants are stricter” (Student 15/46)*
- *“Consultants know their field very well...the pressure is much more like an OSCE” (Student 22/46)*
- *“Want to impress more. More formal.” (Student 42/46)*

Students value feedback equally regardless of clinical grade of the teacher:

- *“They all know what’s right and wrong” (Student 8/46)*
- *“I value any constructive feedback that will help in improving my skills.” (Student 25/46)*
- *“This depends on the quality of feedback and how much detail and thought the doctor has put into the feedback.” (Student 28/46)*
- *“Any feedback is welcome as long as it is constructive.” (Student 41/46)*
- *“I found that it’s not really related to the position of the doctor but rather the individual” (Student 46/46)*

Students trust the validity of taught information equally regardless of clinical grade:

- *“They’re all doctors...” (Student 29/46)*
- *“...this depends completely on the teaching doctor.” (Student 38/46)*
- *“you get different information for both groups and I would trust the junior doctor for exam Qs but consultant for say pathological knowledge as they know it best” (Student 46/46)*