

Peer Tutoring in Clinical Communication Teaching: Motivations and Perceptions of Year 3 Medical Students

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Abstract

Background:

Peer tutoring is an increasingly utilised teaching method in medical curricula that involves the sharing of knowledge between individuals at a similar educational level. Peer tutoring is associated with many benefits, including the development of key transferable skills such as leadership and teaching techniques. The integral role of teaching required as a medical professional is recognised by the General Medical Council (GMC), and calls for increased development of teaching abilities during medical training. Although peer tutoring is well-explored in the literature, the perceptions of the peer tutors are less explored. This study aims to explore Year 3 medical student's perceptions of peer tutoring in clinical communication teaching.

Methods:

As part of Imperial College's Clinical Communication programme, Year 3 MBBS students were offered the opportunity to act as Peer Tutors for their Year 1 MBBS peers by leading two simulated patient interview sessions. All Year 3 MBBS students who participated in the peer tutoring scheme were recruited for this study (n = 21), comprising questionnaires (free text responses), focus groups and individual student interviews. Data was analysed using thematic analysis.

Results:

Three key research questions were explored; the motivation to participate in peer tutoring, skills gained from the experience and the advantages of peer tutoring in medical education. Three themes were identified: *a fundamental enjoyment of teaching, being previously taught by a peer tutor and feeling a duty to give back*. Key skills gained from peer tutoring included: *feedback-giving skills* and transferable skills such as *teamwork, communication and listening skills*.

Conclusions:

Our study highlights the benefits medical students gain from participating in peer tutoring schemes since it provides a foundation for building valuable teaching experience, which students will inevitably utilise in their medical career. The results demonstrate the positive attitude students have towards future exposure to peer tutoring thus proposing further incorporation of peer tutoring schemes in medical curricula.

Background

Peer tutoring is recognised in the literature as 'people from similar social groupings who are not professional teachers helping each other to learn and learning themselves by teaching'¹. It refers to the

concept that involves the sharing and passing of knowledge between those at a similar educational level. The practice of peer tutoring has been used both formally and informally in many educational settings².

Peer tutoring plays an increasingly instrumental role in medical curricula as a unique method of teaching that encourages collaboration between students to develop core professional competencies. The General Medical Council recognises the integral role teaching plays within the medical profession stating that doctors must work effectively 'as a mentor and teacher for other learners in the multi-professional team'³. This is further discussed by Burgess et al, who explored the expectation of doctors to act not only as clinical practitioners but as teachers when supporting their younger peers⁸. To ensure doctors are equipped with the necessary teaching abilities, it is important for them to be exposed to teaching experiences, such as peer tutoring schemes, during their medical education.

Peer tutoring encourages knowledge sharing between near peers at complementary educational levels. Importantly, evidence suggests that medical students are increasingly reliant on the more junior doctors as a learning source whilst on hospital placements^{7,8}. This resonates with published research on social congruence that discusses the absence of intimidation and social hierarchy often associated with teaching from more senior colleagues, as well as teaching being provided at a more appropriate level by peer tutors^{9,10}.

Peer tutoring promotes the development of a variety of skills that are invaluable in a medical career. This includes understanding teaching techniques, such as learning to adapt and personalise teaching styles to student needs and developing effective feedback giving skills². Field et al⁵ discuss how these skills are also comparable to those required to explain medical concepts to patients, with Dandavino et al¹⁶ emphasising that teaching is a crucial component of the patient-physician relationship. This is particularly important considering the increased emphasis placed on patient-centred care and empowerment.

Additional benefits of participation in peer tutoring include development of transferable skills such as proficiency in leadership, effective communication skills and encourages reflection on strengths and gaps in existing knowledge^{11,12,13}. Importantly, participating in peer tutoring provides early exposure to opportunities in academia and cultivates a motivation in students to engage in the education of others¹².

While the literature increasingly documents the numerous advantages of peer tutoring, there is little discussion on the perceptions of medical students acting as peer tutors. A greater understanding is needed to understand the perceived value to the students themselves and their perceptions on peer tutoring in order to develop successful curricula. This study focuses on how peer tutors reflect on their own teaching experiences and how their involvement in peer tutoring will inspire their future as tomorrow's doctors.

Peer tutoring at Imperial College London

This study took place at Imperial College London. As part of the Clinical Communication programme, Year 3 MBBS students are invited to act as Peer Tutors for their Year 1 MBBS peers for simulated patient interview sessions. Students volunteering to the scheme were invited to attend a training session before being randomly allocated to lead two sessions as part of the Year 1 clinical communication programme.

Methods

A multi-method qualitative research design was used for this study, consisting of questionnaires (free text responses), focus groups and semi-structured interviews for data collection. This was underpinned by a phenomenological approach which seeks to explore participants' lived experiences.

Sampling

This study was a service evaluation, therefore we aimed to recruit all peer tutors participating in this scheme. All year 3 medical students participating in Imperial College London's peer tutoring scheme in the academic year 2018/ 2019 were invited to participate (n = 21). The questionnaire achieved a 100% response rate, while 18 students were recruited to participate in the focus groups or interview.

Data collection

Data collection was through a questionnaire developed by the authors (supplementary file) via free-text response, focus groups and interviews. Two focus groups were held at the Faculty of Medicine campus. However, five semi-structured interviews were held to accommodate peer tutors who could not attend the focus groups. This was deemed sufficient as data saturation was achieved. Two researchers (AH and NH) conducted the focus groups and semi-structured interviews. An interview guide was developed with open questions and were supplemented with probing questions. With consent provided by the participants, focus groups and interviews were audio-recorded to enable later transcription and analysis. Focus groups lasted between 45–60 min and all interviews ranged from 20–30 minutes.

Data analysis

Thematic analysis was used to analyse the data using Braun and Clarke's six-phase methodology. Two researchers analysed the data and the third researcher performed a review to ensure triangulation. In phase 1, the two researchers transcribed the audio recordings from the focus groups and interviews and collated this with the free text-responses from the questionnaire. Phase 2 involved the two researchers independently coding the entire data set using in-vivo codes developed from the data. Codes were compared between the two researchers and the third researcher aided in the final synthesis of themes in phase 3. Phase 4 consisted of a comparison of the generated codes within the themes to the data set. Themes were further refined in phase 5 with consideration of minor themes before reporting in phase 6.

Reflexivity statement

This research was conducted by two medical students (AH and NH), alongside the Clinical Communications Lead at Imperial College London (AB PhD). We acknowledge that we have an overall

positive experience of peer tutoring which has shaped our attitudes towards its application in medical education. Whilst complete objectivity may be impossible to establish, we triangulated all stages of the research process in an effort to ensure robustness in our findings.

Results

This qualitative study was guided by three key research questions:

- What are the motivations for becoming a peer tutor?
- What are the skills developed from peer tutoring?
- What are the advantages of peer tutoring in medical education?

Research question 1: Motivations for becoming a peer tutor

When discussing their motivations for participation in the peer tutoring scheme, three themes surfaced in the participants' answers: a *fundamental enjoyment of teaching, being a tutee taught by a peer tutor previously and the prospect of 'giving back'*.

Theme 1: A fundamental enjoyment of teaching

A key theme which surfaced within the focus group discussions was students' enjoyment of teaching and their desire to develop their teaching skills. Many reflected on the value placed on teaching within the medical profession and appreciated the opportunity to teach in this peer tutoring scheme. One student reflected:

'I really enjoy teaching and want to teach more as I continue my career so I thought this would be a really good opportunity to gain the skills through faculty supervising' (M4).

The enjoyment of teaching was also supplemented by a recognition of its usefulness as a skill in the medical profession:

'It's mainly because I wanted to teach and I really enjoy teaching so I thought this would be a good opportunity to teach something I know. It is something that is going to be really useful as a doctor' (M3).

Furthermore, it was highlighted that there was an active interest between students for more faculty-led peer teaching opportunities, as students have the motivation to be involved in the education of their younger peers.

Theme 2: Being a peer tutee in the past

Interestingly, some peer tutors were previously taught in the same scheme by older year counterparts when they were in their first year at medical school. Their overwhelmingly positive experience inspired their participation in this scheme. Speaking about their experiences, one student reflected:

'The peer tutors I had were so nice, we were all so nervous and they made us feel a lot more relaxed. They were more relatable...Medical school is such a long journey and they were a couple of steps ahead so it was nice to see their point of view on it.' (F3)

The relatability of peer tutors as fellow students was apparent, and these students (who had been taught by peer tutors) wanted to guide their younger peers through their first encounter with a simulated patient. One student remembered their high anxiety levels as a first-year medical student and commented:

'I remember doing it myself and I was very nervous, probably more nervous than other people which I found very difficult. I know how I felt so I wanted to help the students through that.' (F1)

Theme 3: Duty to give back

The culture of teaching within medical school is a topic that resonated throughout the focus groups and individual interviews. Many of the students acting as peer tutors had been taught by older students in a variety of education settings, which inspired a sense of a *'a duty to give back'* (F3). Students were appreciative of the guidance and support older year students provided and commented on how instrumental their teaching was during their experience at medical school. One student commented:

'When I think back to first and second year I know that I would not have gotten through it without the help from the older years. So I feel a duty to give back.'(F3)

'It is part of giving back. Being first years we got so much help from older years and it's the same thing. You are giving back from whatever you were given.' (F4)

Research question 2: Skills developed from peer tutoring

Students commented on the variety of transferable skills developed throughout the peer tutoring course and the ways in which their academic and clinical experience had been improved.

Theme 1: Feedback giving

A recurrent theme in many of the student responses was a new-found appreciation and understanding of feedback giving techniques. Many students learned how to facilitate feedback within a teaching session in a constructive and professional manner. When reflecting on the process of giving feedback, a student commented:

'It involves tailoring your advice because you need to gauge how they are feeling. You might want to [think] how you say it.... So you don't intimidate them' (F2)

Not only did students learn how to give feedback, one student also commented learning effective and understandable delivery of feedback:

'I learned how to communicate with someone and put things into terms someone else would understand at their level' (M4)

Theme 2: Communication skills

Students commented on the development of their communication skills through learning how to respond to the students' verbal and non-verbal cues, alleviate anxieties and deliver information in an understandable manner. One student commented:

'I think I'm better now at reading students so before whenever I would teach I would just splurge all my information out because I got nervous...actually I've realised I can actually say much less and they'll still take it in' (F6)

Others highlighted the development of active listening skills, picking up on students' nuances:

'Definitely the power of actively listening and being able to express things in a different way to what you think people will understand. Definitely forces you to get your communication skills honed.' (F9)

Theme 3: Reflection

Students also highlighted this as an opportunity to reflect on their own clinical communication skills and consolidate existing knowledge gained over their years at medical school. This created a scenario where students were able to, through teaching their younger peers, project those experiences onto themselves as a way to reflect on their own educational progression:

'You would be surprised to see how much you can learn from Year 1 students. Even when things go wrong you project that onto your own practices.'(F2)

Teaching their younger peers allowed students to reflect on how much they had learnt in their medical school journey:

'It shows how far you have come from first year and it's a chance to reflect on that. Skills that we are critiquing the students on are ones we have to employ in our hospital placements' F1

Research question 3: The advantages of peer tutoring in medical education

Theme 1: Importance of teaching in medical profession

Peer tutoring was deemed valuable by the students as they recognised that teaching is an important skill to possess as a medical professional. At the heart of peer tutoring is a drive to help others and in a practice such as medicine this desire to help makes up an important part of the role of a doctor. Teaching was explored as an integral component of the medical journey:

'I have noticed on hospital placement that junior doctors, even though they are not officially teachers, much of what they do on a daily basis is teaching. They are not just doing ward rounds they are teaching us as well' (F3)

Theme 2: Improved patient interaction

An interesting theme which surfaced was how the skills used in leading peer tutoring are synergistic to those required when caring for patients. Learning how to recognise and respond to both verbal and non-verbal cues of the tutees and the process of explaining more complicated and unfamiliar concepts is mirrored in clinical practice in the way that a doctor holistically cares for their patients:

'It teaches you how to pick up on anxieties and other cues in the same way you would for patients' (F2)

Students also recognised the multi-faceted nature of being a doctor, where teaching students as well as patients is a fundamental part of the role:

'Our profession is not just about teaching students, you have to teach patients on a daily basis about their condition'(F4)

Theme 3: Relatability of peer tutors

In the academic year the study took place at Imperial College, the Year 1 simulated patient interviews were jointly taught by course tutors and peer tutors in a scheme that left room for the inevitable comparison between the two during the focus group discussions. Peer tutors highlighted the positive impact relatability can have in a teaching environment. The fact that they have gone through the same experiences and can share their learning points is hugely beneficial and adds a personal element to any educational or professional advice given.

'We can share our own experiences with them and tell them how we improved'(F2)

Students further reflected on the increased relatability, and the associated benefits and increased understanding between them:

'They are more relatable because they know what medical students would find difficult, which aspects they find awkward on the wards, the clinics and at GP'(M1)

Discussion

Peer tutoring is a well-established and effective method of learning which engages students to act as learners and teachers in a mutually beneficial learning experience. This study contributes to the existing literature since the focus was primarily on the peer tutors, exploring their perceptions and motivations related to peer tutoring, an area which is not widely explored in the literature. Our findings show that peer tutors are motivated to participate in peer tutoring programmes as they fundamentally perceive that they have a duty to give back to a system that is built on a mutual learning cycle where older students teach younger students. Importantly, the culture of teaching is a fundamental part of medicine⁸, a finding reflected in our study. We found that a key reason students participate in peer tutoring schemes is because they recognise and appreciate the widespread applications of teaching in the medical

profession. Arguably the most interesting finding which surfaced was how the skills involved in teaching students are mirrored in those required to teach patients about their condition. The focus group discussions highlighted that teaching is also a crucial component of clinical practice as a doctor is ultimately responsible for teaching patients about their condition and guiding them holistically through medical care. This finding has not been widely explored in the literature ^{13,14}.

Our study highlights key skills developed through peer tutoring, such as peer tutors' perceived improvement on feedback giving skills and the value they place on it for their future. The focus group discussions demonstrated how students learned to deliver positive yet constructive comments during feedback sessions whilst accommodating students' needs and considering their existing confidence in clinical communications. Our findings are supported by Silbert et al ² who found that tutors reported an increased confidence in teaching as well as giving feedback, and considered the experience as beneficial overall to both themselves and the tutees. Additionally, students partaking in both ours and Silbert et al ² study similarly commented on the comparable teaching and skills required to explain new concepts to peers and patients alike. A curriculum that offers an opportunity to develop a medical student's teaching skills, such as through this peer-tutoring scheme, is one that will build and shape future doctors with enhanced clinical communication skills and a patient-centred approach.

Furthermore, tutors within our study identified the role doctors played in contributing to their learning during placements, despite a lack of formal training to teach. There is indeed an expectation to teach those more junior within the medical profession, with the barriers preventing effective teaching including; a lack of knowledge and training on how to teach, motivate and provide constructive feedback. It can therefore be argued that encouraging peer tutoring early during medical school with a scheme such as ours can only result in better doctors that are equipped to deal with the ever-growing expectation and pressure to teach within the profession.

Self-reflection is an integral part of medical training that has strong foundations in medicine as it allows doctors and students to continuously critically evaluate their clinical practice. Peer tutoring presents not only as an opportunity to learn novel skills but to hone and reflect on existing clinical communication skills, identifying areas of self-improvement by supervising younger peers. This adds to Bell and Mladenovic's work ¹³ on peer tutors and self-reflection, highlighting students' awareness of the value of self-reflection and their desire for opportunities such as peer-tutoring that can increase this.

Overall, the ability to act as an effective peer tutor is not necessarily an inherent skill but a learned practice that develops through consistent exposure to peer tutoring practices ¹⁵. The existing pool of literature ^{1,2,13,15} describes many competencies that can be gained from acting as a peer tutor, which includes a proficiency in leadership and management skills, development of effective communication skills and the ability to respond appropriately to cues from tutees. Topping and colleagues ¹² further add the implication that participating in peer tutoring enhances a medical student's education journey. Our study supports many of these findings and contributes to the literature with the perceptions of the peer-tutor's themselves.

Conclusion

Peer tutoring is an engaging teaching method which continues to benefit both tutors and tutees alike and has played an ever-increasing role in medical education. Participation in peer tutoring schemes presents as a unique opportunity for students to develop core transferable skills which will ultimately aid in their professional development. Peer tutoring itself is a direct reflection of the core values of the medical profession as one that centres around the concept of collaborative learning and relies on the exchange of knowledge between peers. Our findings demonstrate an overall positive impact of peer tutoring on peer tutors and encourages further incorporation of peer tutoring in undergraduate medical education. There is scope for future work that explores the application of peer tutoring in hospital placements and the involvement of junior doctors in peer tutoring.

Limitations

The findings of this study should be considered in the context of several limitations. Notably, our sample size was restricted by Imperial College's quota of participants in this scheme. A larger sample size would be needed to obtain more conclusive findings. Further to this, the voluntary application to this scheme may have led to students with a favourable view of peer tutoring to participate, ultimately contributing to response bias. Our data would have benefitted from a more widespread student response. The questionnaire administered featured open text responses. Consequently, many responses were short and lacking expansion possibly due to time restrictions and lack of motivation to provide detailed answers.

Abbreviations

N/A

Declarations

Ethics approval and consent to participate

Imperial College London's ethics committee was consulted and deemed this study to be a service evaluation and therefore did not require ethical approval.

Consent for publication

All participants included in this study consented.

Availability of data and materials

The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

Competing interests

The authors declare that they have no competing interests.

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Authors' contributions

AH and NH are co-first authors of this manuscript. AH and NH collected the data and performed data analysis. AH, NH and AB synthesised the main findings and contributed significantly to writing the manuscript. All authors read and approved the final manuscript.

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Figures

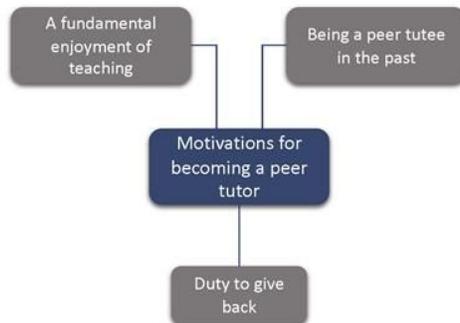


Figure 1

Three themes identified for motivations for becoming a peer tutor: a fundamental enjoyment of teaching, being a peer tutee in the past and a perception of a duty to give back



Figure 2

Three themes identified for skills developed from peer tutoring: Improved feedback giving, communication skills and reflection

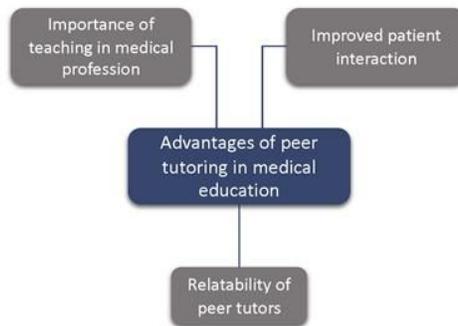


Figure 3

Three themes identified for advantages of peer tutoring in medical education: importance of teaching in the medical profession, improved patient interaction and relatability of peer tutors.

Supplementary Files

This is a list of supplementary files associated with this preprint. Click to download.

- [Questionnaire.docx](#)
- [COREQchecklist.docx](#)