

Augmenting learning and professional growth through peer feedback in medical training: A narrative review

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ABSTRACT

As a part of medical training, students are expected to master many theoretical and practical subject-specific competencies. The role of peer-led initiatives in medical education has been well documented in the literature in aiding students to attain intended learning objectives. The purpose of the current review is to explore the benefits of peer feedback, enumerate methods for delivering peer feedback, identify the potential challenges, and propose strategies to overcome them. A thorough and detailed search related to the topic was carried out in the PubMed search engine and relevant published literature, published between 2015-2024, targeting peer feedback in the field of medical education were included in the review. A total of 23 articles were included in the present review, and keywords used in the search include peer feedback, students, learning, teaching, and medical education in the title alone only. Peer feedback is a specific type of constructive critique provided by individuals of similar status or experience to each other. It is a reciprocal process where everyone helps each other in supporting their growth, improving their self-awareness, and overall professional development. In conclusion, peer feedback is an effective approach to facilitate learning and promote professional growth among medical students. Even though concerns have been raised about its implementation, the need of the hour is to integrate peer feedback into medical education as it can create a supportive system for medical students during their training period.

KEYWORDS

Peer feedback, Assessment, Collaborative, Medical education

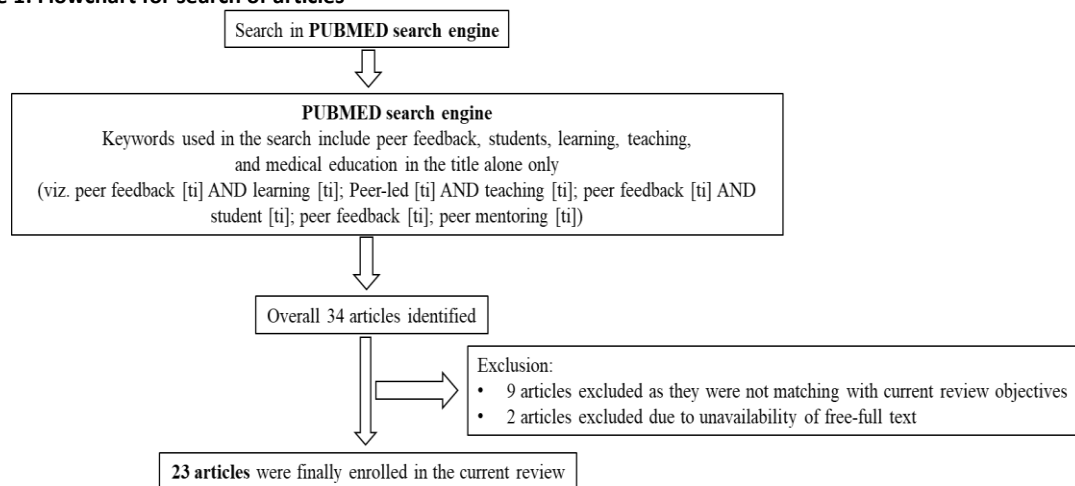
INTRODUCTION

As a part of medical training, students are expected to master many theoretical and practical subject-specific competencies.(1) The issue is further complicated by the rapid evolution of medical knowledge owing to new research findings, advancement in treatments, and incorporation of technologies.(1) Further, students also have to deal with the volatile nature of medical knowledge, and there arises the indispensable need for teachers to support students in their learning process.(1,2) This learning facilitation can be accomplished by a combination of teaching-learning methodologies and assessment methods that make the learning process engaging and interactive.(3) Moreover, the role of peer-led initiatives in medical education has been well documented in the literature in aiding students to attain intended learning objectives.(4,5) The purpose of the current review is to explore the benefits of peer feedback, enumerate methods for delivering peer feedback, identify the potential challenges, and propose strategies to overcome them.

MATERIAL & METHODS

A thorough and detailed search related to the topic was carried out in the PubMed search engine and relevant published literature, published between 2015-2024, targeting peer feedback in the field of medical education were included in the review. A total of 34 articles were initially found out, of which 9 were excluded as they were not in alignment with the current review objectives, while another two were excluded as free full text was not available. Eventually, 23 articles were included in the present review, as depicted in Figure 1. Keywords used in the search include peer feedback, students, learning, teaching, and medical education in the title alone only (viz. peer feedback (ti) AND learning (ti); Peer-led (ti) AND teaching (ti); peer feedback (ti) AND student (ti); peer feedback (ti); peer mentoring (ti)). The reviewed content has been mentioned under the following subheadings, namely peer feedback, benefits of peer feedback, peer feedback methods, and identified challenges and potential solutions respectively.

Figure 1: Flowchart for search of articles



Peer feedback

Peer feedback is a specific type of constructive critique provided by individuals of similar status or experience (viz. students from the same batch, either undergraduate or postgraduate) to each other.(6) In this, peers provide their insights to each other regarding clinical performance, communication skills, professionalism, teamwork, and other competencies.(7) This form of feedback can be planned in both formal and informal settings and plays a crucial role in complementing traditional forms of assessment that are conducted by teachers.(6-8) The purpose is to create a collaborative learning environment, wherein students with the same level of experience, help their peers by highlighting areas of strength and areas that need improvement, based on their observations, reflections, and group discussions.(6,7) In addition, it is a reciprocal process where everyone helps each other in supporting their growth, improving their self-awareness, and overall professional development.(7,8)

Benefits of peer feedback

Peer feedback has been associated with benefits to students both in facilitating learning and in promoting professional growth. In terms of learning, the delivery of peer feedback helps students to recognize their strengths and weaknesses (self-awareness), encourages active engagement in the sessions, and brings about an improvement in essential clinical skills (viz. history-taking, physical examination, etc.).(8-10) Moreover, once a student analyses the received feedback, it cultivates critical thinking skills among them, and this helps them to adopt a systematic approach while dealing with various clinical scenarios.(11) The discussion that happens during peer feedback plays a crucial role in long-term retention of knowledge and skills and also becomes vital in strengthening communication skills between peers as well as with the patients.(12) Further, students also realize that different people may have different perspectives to approach the given clinical scenario, and thus it is always nice to have a wider approach to learning.(6,8)

Peer feedback is of paramount importance in bringing about professional growth among medical students, be it in terms of encouragement of collaboration and teamwork, or terms of interpersonal skills, both are critical for effective and efficient healthcare delivery.(6,12) The adoption of such learning strategies creates a supportive learning environment, where students aren't afraid to share their views and seek help whenever they require it.(9) This form of feedback also reinforces the need to strictly adhere to ethical principles while discharging duties in clinical settings.(8) It won't be wrong to state that peer feedback prepares students for real-world challenges, where peer evaluation is a regular practice, and thus justifies the need to be self-directed and lifelong learners to ensure continuous improvement.(13) Finally, on receiving constructive feedback from peers, students might feel more confident, which is extremely important in the training period as well as future clinical practice.(6,8)

Peer feedback methods

In medical training, peer feedback can be employed in multiple ways across heterogeneous settings, such as feedback from peers after observing case discussions or procedures in both real patients and simulated case scenarios, and this helps students to learn from their mistakes.(14,15) This feedback can also be provided after assessing the performance of peers either in clinical interactions or procedures or written assignments, depending on structured rubrics, and provides valuable insights into the key competencies that need to be focussed.(6,16) Peer feedback can also be delivered using multisource feedback and/or mini-peer assessment tools while assessing the performance of students in specific entrustable professional activities.(17) The institution can even make arrangements for recording clinical encounters and then review the videos with peers to provide constructive feedback to each other.(15) Peer mentoring is a well-established system to deliver feedback to each other on various aspects of medical training.(18) It is the discretion of the institution to keep the delivered feedback either anonymous or known to peers depending on the comfort levels of the peers.(16)

Identified challenges and Potential solutions

The decision to implement peer feedback in medical colleges can pose multiple challenges, beginning with either being resistant or undervaluing peer inputs compared to that from the teachers, which can significantly hamper the effectiveness of such an initiative.(19,20) In addition, on a personal front, students might have the fear that giving or receiving feedback could potentially change the kind of bonding that they share, and thus they might avoid this process altogether.(19,20) This calls for the need to create a feedback culture in the institution, where it is acknowledged as an opportunity for growth instead of criticism.(21) Moreover, it is advisable to introduce peer feedback gradually rather than all at once, and faculty members should be encouraged to share their experiences on how peer feedback helped them in their professional practice.(22) Also, anonymous feedback systems can be encouraged to minimize anxiety about peer relationships and to encourage honesty in feedback without being worried about the repercussions.(6,20)

The next major concern is limited awareness about the utility of peer feedback, and the absence of formal training of students to provide or receive constructive feedback, as it might result in confusion and unnecessary critique.(8,23) In continuation, there might be multiple concerns about inconsistency in the quality of feedback provided to peers.(19) All these interrelated problems can be overcome by organizing hands-on workshops for students to sensitize them about the benefits of such form of feedback, and to train them in giving and receiving constructive feedback, including various frameworks.(8,21,23,24) Also, students can be encouraged to use structured rubrics for the same and ask faculty members to oversee the process. Another concern is regarding time constraints, owing to the packed nature of the teaching schedule with limited availability of time for peer feedback sessions.(25) The best remedial approach is to incorporate such sessions as a part of the existing teaching-learning activities, and encourage the use of digital tools or platforms to promote feedback delivery beyond classroom hours.(25) There is an additional concern that personal relationships, competition between peers, or bias towards each other can make the entire process subjective and unfair.(16) This is a practical concern, and we must frame structured and objective criteria for peer feedback to negate the influence of personal bias. Another doable option will be to rotate peer feedback partners to neutralize the possibility of both favouritism and rivalry.(16) The next challenge is to arrange for adequate logistics and resources to organize such sessions in large cohorts of students. This problem can be dealt with by dividing students into smaller groups to ensure the delivery of efficient and effective feedback to peers.(26) There is always an option to employ online platforms to minimize the requirement of resources and logistics.(25,26) Finally, concerns have emerged regarding how peer feedback can be evaluated and its use in improving academic performance can be identified.(6) The best approach will be to utilize peer feedback as a formative tool for development rather than

for summative assessments. In addition, teachers can be encouraged to oversee the entire process to ensure fairness and transparency, and this will add lots of substance to the system.(6,8)

CONCLUSION

In conclusion, peer feedback is an effective approach to facilitate learning and promote professional growth among medical students. Even though concerns have been raised about its implementation, the need of the hour is to integrate peer feedback into medical education as it can create a supportive system for medical students during their training period.

AUTHORS CONTRIBUTION

All authors have contributed equally.

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CONFLICT OF INTEREST

There are no conflicts of interest.

DECLARATION OF GENERATIVE AI AND AI ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

The authors haven't used any generative AI/AI assisted technologies in the writing process.

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