Review Article

Feedback in Medical Education: Identification of Barriers and Potential Strategies to Overcome Them

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Abstract

A number of learning competencies have to be attained by the medical students during their training period, as very limited time is available for them. This calls for the need to help medical students in their journey to become competent by facilitating the process of acquisition of knowledge and skills. The purpose of the current review was to explore the importance of feedback in medical education, identify the potential barriers to its effective delivery, and identify the strategies to overcome them. An extensive search of all materials related to the topic was carried out on the PubMed search engine, and a total of 17 articles were selected based on their suitability with the current review objectives. Keywords used in the search include feedback and medical education in the title alone only. Feedback in medical education is one of the most essential strategies to enhance learning. The findings of some of the studies have shown that feedback is not always beneficial and that students feel that feedback is not that much important as medical educators believe about it. In conclusion, acknowledging the significance and scope of feedback in medical education, the need of the hour is to include the same in every stage of the teaching–learning process. However, the effectiveness of feedback is significantly influenced by a wide range of teacher-, student-, and environment-related factors, and there is a definite need to take appropriate measures to address the challenges posed by these factors.

Keywords: Feedback, medical education, students, teachers

Introduction

The domain of medical education is extremely vast, and a lot is expected from the medical students by the time of completion of their training in terms of the attainment of the learning competencies. Being an adult learner and considering the paradigm shift wherein we have shifted from teacher-centered to student-centered learning, the onus for learning depends on students alone, with the teacher just being the facilitator.[1] However, in the process of training medical students, we as teachers cannot leave them on their own, and there arises the need to adopt specific teaching–learning strategies and innovative/effective methods to benefit all types of students with different learning styles.[1] The purpose of the current review was to explore the importance of feedback in medical education, identify the potential barriers to its effective delivery, and identify the strategies to overcome them.

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Methods

An extensive search of all materials related to the topic was carried out on the PubMed search engine. Relevant research articles focusing on feedback in medical education published in the period 2013–2022 were included in the review. A total of 20 studies similar to the current study objectives were identified initially, of which three were excluded due to the unavailability of the complete version

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of the articles. Overall, 17 articles were selected based on their suitability with the current review objectives and analyzed. Keywords used in the search include feedback and medical education in the title alone only (viz., feedback [ti] AND medical education [ti]; feedback [ti] AND barrier [ti] AND medical education [ti]; effective feedback [ti] AND medical education [ti]; feedback culture [ti]). The articles published in only the English language were included in the review [Figure 1]. The collected information is presented under the following subheadings, namely, feedback in medical education, successful feedback, issues with feedback, barriers in feedback, potential strategies and steps to overcome barriers, and lessons from the field.

Feedback in medical education

Feedback in medical education is an integral component and has emerged as one of the most effective methods to enhance/amplify learning.[2] In fact, the teaching or learning process has to be considered incomplete if we do not include the component of feedback. In general, feedback refers to the sharing of the information about a student's performance by a teacher (or peers, patients, caregivers, etc.) that plays a crucial role in the personal and professional development of the student.[1,3] We must understand that feedback is not a one-way process rather, even teachers should seek feedback from the students to get insights about their teaching style and quality and thus keep improving gradually.[1-3]

Successful feedback

Even though the feedback has been repeatedly used and envisaged in different settings, it is not that simple to elicit or make it effective. To ensure that feedback is effective, there has to be active involvement of both the provider and the recipient of the feedback.[2,3] Moreover, the provided feedback must be specific, descriptive, and timely so that the recipient uses it for self-improvement. However, we must accept that the recipient has to take a call whether to accept or reject it based on the utility of the given feedback.[3,4] In other words, the overall success of feedback will depend not only on the context, content, and quality but also on the relationship between the provider and recipient and incorporation, resulting in a change in behavior of the recipient.[2-4]

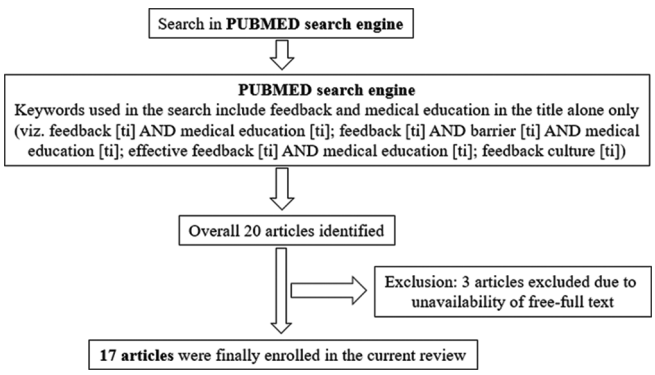

Figure 1: Flowchart for selection of research articles

Issues with feedback

The findings of some of the studies have shown that feedback is not always beneficial and that students feel that feedback is not that much important as medical educators believe about it.[1-5] In fact, students have opined that feedback is not fruitful, and thus, many do not care about it, or the aspect that they receive feedback only after the completion of the course, and thus, they fail to derive any benefits from it. In another study, it was reported that more than 50% of the participating students were not aware of the significance of feedback.[5] Moreover, some of the studies have even identified the presence of specific barriers that influence the practice of giving or receiving feedback.[6,7]

On inquiry about students giving feedback to the teachers or administrators, it was reported that the institution is already aware of our opinion and concerns about different aspects, but the administrators do not act upon it.[5,6] Another set of students opined that either feedback is not accepted or that it has been practiced routinely without them being aware of the purpose of the same.[5] It was quite alarming to note that a significant proportion of students reported that the practice of feedback is followed in their institution only to get better grades in the accreditation process, and no actions are being taken to bring about any change.[4-6] In addition, the timing of feedback is also important and should be given so that students can accept it happily.

Barriers in feedback

As already mentioned, the presence of various factors has significantly impacted the process of feedback delivery or feedback-seeking behavior, and all these need to be addressed to enhance the overall utility.[6,7] With reference to the teachers, inability to approach students, rigid behavior, unwilling to guide, relationship with students, their competence with the subject, not being trained in giving feedback, poor confidence level, and fear of being judged by the students can prove to be major barriers.[7-9] In case of students, limited engagement of students in learning, desire to not learn, not approaching the teacher for improvement, opinion that feedback is of no utility, extremely sensitive students, language barrier, lack of respect toward feedback provider, and a strong resistance toward the incorporation of the given suggestion impact the utility of the given feedback.[6-9]

Potential strategies and steps to overcome barriers

It is very much crucial that the existing barriers should be identified, and specific measures should be taken to neutralize them. The first and foremost thing is to train the medical teachers about feedback, the need, the scope, the utility, the ways in which it can be delivered, and the do's and don'ts.[8-10] Once teachers are trained and are self-convinced, most of the teacher-related barriers can be eliminated, and teacher–student can work together toward the path of self-betterment.[11] The curriculum committee of the institution can decide about the various learning opportunities wherein feedback can be given to the students, and this might include structured feedback about the performance in an examination, informal feedback given to the students after performing a practical or

clinical interaction, feedback to students subsequent to their participation in a seminar or problem-based learning session, feedback to students in the mentor–mentee sessions about the overall performance of the students (and not only one specific subject), and feedback to students during teaching sessions pertaining to their involvement and the ways to become better. These identified opportunities should be communicated to all the faculty members in the department, and they should be repeatedly motivated not to miss any of them.

Further, they should be encouraged to never give negative feedback (as the impact can turn out to be long term and damaging), rather offer the same suggestions in a constructive manner with a solitary intention to enhance learning.[9] The teachers should also assure students that all the discussions happening between them will be kept confidential and will only focus on improving.[9] In addition, it is important to give privacy at the time of teacher–student interaction so that students can feel free to open up about both academic and personal issues (if any).[9-11] It is true that as teachers, we do not determine who all will join the course of medicine; nevertheless, once they join, a lot depends on how teachers guide or mentor students in setting their goals, getting accustomed to a new place, and staying motivated to become a competent doctor.[11,12]

Like teachers, even students should be oriented about the utility of feedback and the role it plays in not only their betterment but even the teachers and the overall curriculum.[6] Once students understand the rationale, they will be more than happy to seek and deliver feedback, as everyone needs some motivation or encouragement.[6] Both teachers and students should be open to receiving or seeking feedback and understand the core message given in the feedback. It is very much advisable to keep a follow-up on feedback to enable tracking and ascertain improvement, and this should also include a reflection by the students on the given feedback and their individual performance.[12,13] Further, the maintenance of effective communication is the crucial component to ensure successful feedback interaction between the provider and the recipient.[9,11,14] At the same time, it is extremely important that a feedback culture should be established in the institution, and this will necessarily require the support of all the faculty members.[15-17]

Lessons from the field

The medical education unit of the institution can organize a series of workshops to train all faculty members in the art of giving feedback. The teachers should be explained that each and every learning opportunity needs to be explored, and feedback should be given to the students to keep them motivated. At Shri Sathya Sai Medical College and Research Institute, a constituent unit of the Sri Balaji Vidyapeeth, Deemed-to-be University, Puducherry, the medical education unit has been periodically organizing a series of faculty development programs to improve the abilities of the teachers to give feedback and understand the intricacies involved in the process.

Conclusion

To conclude, feedback in medical education is an indispensable component of the teaching–learning process. However, the effectiveness of feedback is significantly influenced by a wide range of teacher-, student-, and environment-related factors, and there is a definite need to take appropriate measures to address the challenges posed by these factors.

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Conflicts of interest

There are no conflicts of interest.

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