

# Implementation of AETCOM Module in Indian Settings: Points to Ponder

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## Abstract

The making of a medical professional is a complex task and essentially requires a combination of a number of activities. The present review was carried out to explore the implementation of attitude, ethics and communication (AETCOM) module related teaching and assessment in medical colleges in Indian settings. An extensive search of all materials related to the topic was carried out in the PubMed search engine, and a total of 28 articles were selected based on the suitability with the current review objectives and analyzed. Keywords used in the search include attitude, ethics communication, medical students, and medical education in the title alone. In order to bridge this gap, the regulatory body has introduced the AETCOM module in the undergraduate curriculum. The topics in the AETCOM have been divided into different modules, which gradually becomes complex as the students move from the first phase to the subsequent phases. The assessment of the AETCOM competencies can be done through the use of a wide range of methods. However, the successful implementation of the same will immensely depend on the faculty development programs. To conclude, in order to accomplish the national vision to produce a competent graduate who can meet the health-care needs of the society, the phase-wise introduction of AETCOM module is a significant step. This calls for the need to adopt a systematic approach to effectively schedule and cover the assigned topics, thereby guiding the students on the path toward becoming community physicians.

**Keywords:** Attitude, communication, ethics, India, medical education

## INTRODUCTION

The making of a medical professional is a complex task and essentially requires a combination of a number of activities for transforming a young medical student into a competent health-care professional.<sup>[1,2]</sup> In general, the learning during medical training occurs across cognitive, psychomotor, and affective domains.<sup>[1]</sup> However, considering the importance of communication in successful clinical practice, it has also been added.<sup>[2,3]</sup> It is, indeed, a fact that the traditional medical curriculum in India predominantly targeted the cognitive domain, whereas the other learning domains, especially the affective one and communication, have been significantly ignored.<sup>[2-4]</sup> This can be considered as one of the major lacunae in the educational process and also one that needed immediate attention.<sup>[1]</sup> The present review was carried out to explore the implementation of the AETCOM module related teaching and assessment in medical colleges in Indian settings.

## MATERIALS AND METHODS

An extensive search of all materials related to the topic was carried out in the PubMed search engine. Relevant research articles focusing on the training imparted to medical students in the domains of attitude, ethics, and communication published during the period 2004–21 were included in the review. A total of 30 studies similar to current study objectives was identified initially, of which two were excluded due to the unavailability of the complete version of the articles. Overall, 28 articles were

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selected based on the suitability with the current review objectives and analyzed. Keywords used in the search include attitude, ethics communication, medical students, and medical education in the title alone (namely attitude [ti] AND medical education [ti]; attitude [ti] AND medical students [ti]; ethics [ti] AND medical students [ti]; ethics [ti] AND medical education [ti]; communication [ti] AND medical education [ti]). All the articles published in the English language were only selected for the review [Figure 1]. The collected information is presented under the following subheadings, namely Scope of AETCOM Module, Teaching of AETCOM Module, Assessment of AETCOM Module, Potential challenges and Suggested measures, Lessons from the field, Implications for practice, and Implications for research.

### Scope of AETCOM module

In fact, in order to bridge this gap, the regulatory body initially introduced an attitude and communication (ATCOM) module, which was subsequently strengthened by the incorporation of the ethical component to the AETCOM module.<sup>[5]</sup> Considering that the selection process of the students does not take into account the attitude of the potential future doctors of the nation, the inclusion of the AETCOM component in the medical training period is a much needed and welcome step.<sup>[5,6]</sup> We must realize that the successful implementation of the program will not only aid in the provision of comprehensive health care, but it will also minimize the risk of negligence from the health sector and any unethical practices.<sup>[7,8]</sup> Further, the training of medical students in the AETCOM aspects is expected to play an instrumental role in the attainment of the core competencies (namely the roles of communicator, leader, team member, professional, system-based practitioner, etc.) desired from an Indian medical graduate.<sup>[5,7-9]</sup>

In the recently proposed competency-based undergraduate medical curriculum, the systematic introduction of AETCOM has been envisaged and a specific duration of teaching AETCOM particulars has been recommended across all the professional phases, to be manned by the parent departments in rotation.<sup>[5]</sup> The topics in the AETCOM have been divided into different modules, which gradually becomes complex as the students move

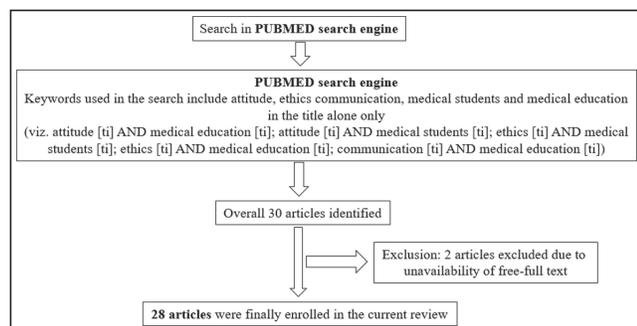
from the first phase to the subsequent phases and the students are expected to attain the desired competencies.<sup>[1-5]</sup> The coverage of different AETCOM modules will aid the students in comprehending and implementing the principles of ethics and clinical reasoning in patient care and medical research. In addition, the students will also realize about the importance of system-based practice, improve their communication skills, adopt a professional approach while dealing with patients or their caregivers, and develop humanistic attributes (namely empathy, compassion, altruism, etc.).<sup>[1,5,6]</sup>

### Teaching of AETCOM module

The teaching in the AETCOM module can be facilitated by a wide range of teaching–learning methods, such as an exploratory session, hybrid problem-based learning, discussion of case vignettes, use of standardized patients, facilitated panel discussions, hospital visits, large group sessions, discussions, skill labs, self-directed learning, etc.<sup>[1,10-16]</sup> It is important to note that the training imparted to the medical students improves their interprofessional communication skills, thereby improving their leadership role as well as their ability to work as members of the health-care team.<sup>[17]</sup> The training imparted on the AETCOM domain not only helps the students to become competent in these domains, but it also plays an important role in them imbibing the trait of being professional while discharging their duties.<sup>[18]</sup> Apart from this, the students should also be made to realize the importance of nonverbal communication and the role that it plays in enhancing better delivery of health-care services and improved patient outcomes.<sup>[19]</sup> The students should be encouraged to reflect on the learning experiences to ensure deep learning.<sup>[20]</sup> In addition, simulation-based teaching has also been employed in heterogeneous settings with a variable extent of success.<sup>[21,22]</sup> It is quite crucial that the facilitator should define specific learning objectives for each of their sessions, thereby ensuring that the students work in the same direction to eventually attain the learning outcomes.<sup>[2]</sup>

### Assessment of AETCOM module

However, like any other teaching, the desired learning outcomes cannot be accomplished unless they are supplemented with appropriate assessment methods.<sup>[22-27]</sup> The assessment of the AETCOM competencies can be through the use of objective, structured clinical examination or via the use of multisource feedback (feedback from patients, faculty members, patient relatives, other peers, etc.) or workplace-based assessments, simulated patients, or the use of standardized patients.<sup>[22-26]</sup> In order to assess AETCOM competencies in summative assessments, a theory question has been recommended.<sup>[27]</sup> Considering that AETCOM competencies are predominantly related to attitude, it becomes tricky to assess the same (namely assessment of nonverbal skills or communication skills,



**Figure 1:** Flowchart for selection of studies

variability in what the students write and how they behave in clinical settings, absence of question banks, no model answers availability, scope of repetition between different subjects, etc.) in theory examinations.<sup>[27]</sup>

### Potential challenges and suggested measures

Although the introduction of AETCOM can play a pivotal role in the making of a medical professional, we must realize that in order to successfully implement the same, we have to start with faculty development programs targeting the ways to teach and assess AETCOM competencies and the need for the same in the current era.<sup>[1,5]</sup> Another challenge in the smooth implementation of the AETCOM module is scheduling of the classes, wherein the allocated numbers of teaching hours in the time table have to be specifically assigned. This will require collaborative efforts between colleagues of different departments and proper scheduling of sessions and assessment of the same.<sup>[1,5,9,27]</sup>

### Lessons from the field

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 of the institute carried out a series of phase-wise workshops for all the faculty members to expose them to the AETCOM module and the responsibility of the teachers. In addition, the faculty members were also exposed as a part of the Revised Basic Medical Education Workshop to the AETCOM module. After receiving the training, the faculty members of each professional year sat together and put in efforts to ensure the allocation of teaching hours assigned to the AETCOM module within the specified total training hours. Subsequently, an appropriate mix of teaching-learning methods was selected and at the same time, the assessment methods were identified separately for formative and summative assessments. Finally, in order to ensure deep learning, the students were encouraged to write their reflections in their individual logbooks.

### Implications for research

As the systematic introduction of the AETCOM module is still in its early days, there is immense scope for the promotion of research activities in the area. The research activities can start right from the planning phase and even extend into the implementation, assessment, and overall evaluation of the program.<sup>[28,29]</sup> The research activities can target the various teaching-learning methods that can be employed in teaching different aspects of the AETCOM skills.<sup>[28,29]</sup> In addition, the research activities can also deal with the assessment of the AETCOM domains in both small group and large group settings.<sup>[30]</sup> Further, students can also be exposed to research ethics in the form of knowing their overall perception and attitude about

the same. Finally, feedback can be obtained from both teachers and students to ensure that based on the received inputs, subsequent sessions can be significantly improved.

### CONCLUSION

To conclude, in order to accomplish the national vision to produce a competent graduate who can meet the health-care needs of the society, the phase-wise introduction of the AETCOM module is a significant step. This calls for the need to adopt a systematic approach to effectively schedule and cover the assigned topics, thereby guiding the students on the path toward becoming community physicians.

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### Conflicts of interest

There are no conflicts of interest.

### Authors' contribution

SRS contributed toward the conception or design of the work, drafting of the work, approval of the final version of the article, and agreed to all aspects of the work. PSS contributed toward the literature review, revision of the article for important intellectual content, approval of the final version of the article, and agreed to all aspects of the work.

### REFERENCES

1. Mitra J, Saha I. Attitude and communication module in medical curriculum: Rationality and challenges. *Indian J Public Health* 2016;60:95-8.
2. Agarwal A, Agarwal A, Nag K, Chakraborty S, Ali K. Doctor patient communication—A vital yet neglected entity in Indian medical education system. *Indian J Surg* 2011;73:184-6.
3. Brown J. How clinical communication has become a core part of medical education in the UK. *Med Educ* 2008;42:271-8.
4. Henry SG, Holmboe ES, Frankel RM. Evidence-based competencies for improving communication skills in graduate medical education: A review with suggestions for implementation. *Med Teach* 2013;35:395-403.
5. Medical Council of India. Attitude, Ethics and Communication (AETCOM) Competencies for the Indian Medical Graduate; 2018. Available from: [https://www.mciindia.org/CMS/wp-content/uploads/2020/01/AETCOM\\_book.pdf](https://www.mciindia.org/CMS/wp-content/uploads/2020/01/AETCOM_book.pdf). [Last accessed on 2021 June 19].
6. Medical Council of India. Graduate Medical Education Regulations Gazette—2019; 2020. Available from: <https://www.mciindia.org/ActivitiWebClient/open/getDocument?path=/Documents/Public/Portal/Gazette/GME-14.05.2019.pdf>. [Last accessed on 2021 June 19].
7. Coyle YM, Mercer SQ, Murphy-Cullen CL, Schneider GW, Hynan LS. Effectiveness of a graduate medical education program for improving medical event reporting attitude and behavior. *Qual Saf Health Care* 2005;14:383-8.
8. Sarma A, Heilbrun ME. A medical student perspective on self-referral and overutilization in radiology: Application of the four core principles of medical ethics. *J Am Coll Radiol* 2012;9: 251-5.

9. Shrivastava SR, Shrivastava PS. How to successfully implement competency-based medical education in India. *Educ Health Prof* 2018;1:61-3.
10. Yavari N. Does medical education erode medical trainees' ethical attitude and behavior? *J Med Ethics Hist Med* 2016;9:16.
11. Bayntun C. A medical student's experience of being taught medical ethics. *Bull Med Ethics* 2004;201:13-8.
12. de la Garza S, Phuoc V, Throneberry S, Blumenthal-Barby J, McCullough L, Coverdale J. Teaching medical ethics in graduate and undergraduate medical education: A systematic review of effectiveness. *Acad Psychiatry* 2017;41:520-5.
13. Balak N, Broekman MLD, Mathiesen T. Ethics in contemporary health care management and medical education. *J Eval Clin Pract* 2020;26:699-706.
14. Shamim MS, Baig L, Zubairi N, Torda A. Review of ethics teaching in undergraduate medical education. *J Pak Med Assoc* 2020;70:1056-62.
15. Ferreira-Padilla G, Ferrández-Antón T, Lolas-Stepke F, Almeida-Cabrera R, Brunet J, Bosch-Barrera J. Ethics competences in the undergraduate medical education curriculum: The Spanish experience. *Croat Med J* 2016;57:493-503.
16. Marco CA, Lu DW, Stettner E, Sokolove PE, Ufberg JW, Noeller TP. Ethics curriculum for emergency medicine graduate medical education. *J Emerg Med* 2011;40:550-6.
17. Olde Bekkink M, Farrell SE, Takayesu JK. Interprofessional communication in the emergency department: Residents' perceptions and implications for medical education. *Int J Med Educ* 2018;9:262-70.
18. Childs BH, Rizvi N. Introduction: Special issue on undergraduate medical education in ethics and professionalism. *HEC Forum* 2020;32:77-83.
19. Piza F, Piza P, Schwartzstein RM. The power of nonverbal communication in medical education. *Med Teach* 2019;41:476-7.
20. Camp ME, Jeon-Slaughter H, Johnson AE, Sadler JZ. Medical student reflections on geriatrics: Moral distress, empathy, ethics and end of life. *Gerontol Geriatr Educ* 2018;39:235-48.
21. Kopel J, Hier D, Thomas P. Communication simulation training in medical education. *Proc (Bayl Univ Med Cent)* 2019;32:306-7.
22. Jabeen D. Use of simulated patients for assessment of communication skills in undergraduate medical education in obstetrics and gynaecology. *J Coll Physicians Surg Pak* 2013;23:16-9.
23. AlMahmoud T, Hashim MJ, Elzubeir MA, Branicki F. Ethics teaching in a medical education environment: Preferences for diversity of learning and assessment methods. *Med Educ Online* 2017;22:1328257.
24. Loureiro E, Ferreira MA, Fresta M, Ismail M, Rehman SU, Broome M. Teaching and assessment of clinical communication skills: Lessons learned from a SWOT analysis of Portuguese Angolan and Mozambican Medical Education. *Porto Biomed J* 2017;2:47-58.
25. Chandawarkar RY, Ruscher KA, Krajewski A, Garg M, Pfeiffer C, Singh R, *et al.* Pretraining and posttraining assessment of residents' performance in the fourth accreditation council for graduate medical education competency: Patient communication skills. *Arch Surg* 2011;146:916-21.
26. Rodriguez AN, DeWitt P, Fisher J, Broadfoot K, Hurt KJ. Psychometric characterization of the obstetric communication assessment tool for medical education: A pilot study. *Int J Med Educ* 2016;7:168-79.
27. Ghosh A, Bir A. Role of written examination in the assessment of attitude ethics and communication in medical students: Perceptions of medical faculties. *J Educ Health Promot* 2021;10:23.
28. Mijaljica G. Medical ethics, bioethics and research ethics education perspectives in South East Europe in graduate medical education. *Sci Eng Ethics* 2014;20:237-47.
29. Laidlaw A, Salisbury H, Doherty EM, Wiskin C; UK Council for Clinical Communication in Undergraduate Medical Education. National survey of clinical communication assessment in medical education in the United Kingdom (UK). *BMC Med Educ* 2014;14:10.
30. Hally E, Walsh K. Research ethics and medical education. *Med Teach* 2016;38:105-6.