

Attitude, Ethics, and Communication module for medical undergraduates: rapid transition to online mode of teaching during the COVID-19 pandemic

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Abstract

Introduction: Imparting skills related to attitudes, ethics and communication (AETCOM) is as important as psychomotor and cognitive skills in medical education. During the COVID-19 pandemic with the physical shut-down of medical colleges, alternatives to in-person teaching of AETCOM competencies were explored. Here we describe our experience of conducting online AETCOM sessions for medical undergraduates.

Methodology: An online teaching/learning schedule was developed for the topic “working in a health care team” for AETCOM sessions in the Community Medicine department in a medical college in North India. A series of brainstorming sessions among departmental faculty members were followed by mapping of available resources. Postgraduate students of the department were involved as facilitators. Feedback from students was obtained.

Results: The developed schedule was implemented with 169 students of the phase II undergraduate course. The schedule was based on synchronous sharing of open source online videos such as movies, or role plays followed by small group discussion sessions which were facilitated by a teacher. Narrative writing, a short-answer type questionnaire, followed by another round of discussion was used to promote critical thinking. The students mentioned the selected videos, the structure of the online questionnaire for submission of narratives and discussion sessions which were participatory and voluntary in nature helped them to understand the scheduled topic.

Conclusion: Carefully developed structured strategies based on triggers such as videos can serve as a possible alternative to teach AETCOM competencies in case of shutdown of in person teaching in medical colleges.

Keywords: On line teaching, Attitude, Ethics and Communication

Introduction

Evidences as highlighted by Choudhary & Gupta (2015), Arneja & Lal (2017), suggest that for medical graduates learning skillful communication, developing a professional attitude is as important as acquisition of knowledge and psychomotor skills in Medicine.

The competency based medical education (CBME) curriculum recommended by the Medical Council of India (2018), for Indian medical undergraduates includes modular teaching for competencies related to attitude, ethics and communication (AETCOM). Few studies published from India (Vijayshree, 2019, Bhattacharya and Kartikeyan 2020 and Joshi *et al.*, 2021) reported that the module was found useful by students.

There are total of 27 AETCOM modules which learners have to complete in 140 hours in a

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longitudinal process over the entire course of medical undergraduate curriculum. The eight AETCOM modules to be taught to medical undergraduates in the second phase of the MBBS (Bachelors of Medicine and Bachelors of Surgery) course are divided among the four disciplines taught in this phase. Module number 2.4 titled "Working in a health care team" was assigned to the Department of Community Medicine. The prescribed teaching learning methodology for this module was:

- a. Students to conduct interviews and spend time with health care workers like nurses, technicians and write a narrative and
- b. Students to participate in small group discussions based on observations, experiences, reflections and inferences about requisites of working as members of a health care team.

At the time of the scheduled sessions, the teaching hospital attached with our Medical College was a COVID dedicated hospital and most of the staff were involved in COVID duties. An in-person interaction between the students and the healthcare workers was not possible. We had to therefore attempt teaching this module in an online mode. Here we describe our experience of conducting NMC AETCOM Module number 2.4 in an online mode by the department of Community Medicine, in a medical college of North India.

Methodology

Study Setting

The online AETCOM activities were implemented with 169 undergraduate students in phase II MBBS course during July-August, 2021. Six, one-hour weekly sessions were allotted to this module (AETCOM NMC Module 2.4) to be conducted by the Department of Community Medicine, in a medical college in North India.

The process of deciding online learning resources

A series of brainstorming sessions were held among the faculty members of the department to decide the activities and resources to equip

the students with the knowledge and skill of team work through the process of experiential learning. Three key options were examined. First, sharing of available literature like stories, blogs, case reports, news-paper articles related to the AETCOM module was considered but we found that this required more teaching hours than allotted, as students require time to read and comprehend it. Moreover, students were from a diverse linguistic background, thus subjective interpretation of literature was a possibility.

Our second option was to develop indigenous videos for different scenarios, eg: Teamwork in the outpatient department (OPD), operation theatre (OT), laboratory and community settings along with recording of interviews with healthcare workers. As the pandemic was still evolving, creation of the new videos were perceived to be difficult considering the restricted access to our COVID dedicated hospital and the overworked hospital staff. Finally, using relevant clippings from open source online videos such as movies, or role plays, was agreed upon. This was found to be able to deliver the complex messages related to teamwork in a relatively short span of time in a uniform manner to all students.

Resource Mapping and the principle of holding online sessions

The facilitators associated with teaching this module were already involved in conducting of online theory and practical classes and were thus comfortable with teaching via online mode. The institute had access to Microsoft Teams which also has the breakout room feature to hold small group discussions online. This digital platform was deemed to be appropriate for conducting the sessions.

Postgraduate residents of the department were involved as facilitators considering factors such as the total number of students, the limited number of faculty and the multiple small group discussions needed. The post graduate residents were also involved throughout in the planning and implementation of the sessions. It was decided that the sessions should be based on the principles of interaction, questioning

behavior (for engagement), discussion, and promotion of critical thinking and reinforcement of the concepts.

Assessment and feedback from the session

We stuck to narrative writing and participation in the online small group discussions for assessment as prescribed by the NMC AETCOM module 2.4. In addition to this, a short answer question based assessment was added which was designed to promote critical thinking and reflection. Students' feedback was also obtained using open ended questions to understand the perspective of the students about the scheduled activities.

As this was a routine teaching/learning strategy, institutional ethics committee clearance was not needed. However, the ethical principles of the Helsinki declaration were followed.

Results

The developed online teaching schedule

We developed a series of activities which were centered on synchronous online sharing of short video segments (not more than 5 minutes). The video clippings were selected from online open-source videos available on YouTube and cited as per prescribed norm following You-Tube Video reference citation guidelines of the American Psychological Association (2022). While selecting videos, care was taken to demonstrate scenarios showing both good and poor teamwork, and teamwork in the hospital as well as the community setting.

The schedule developed and implemented is shown in table 1. The main activities included in the schedule were discussion with peers and facilitators followed by structured narrative writing. For structured narrative writing, an online questionnaire was developed to explore students' interpretation of the scenarios in the videos. Day 1 was a large group teaching session orienting students to the importance

and components of teamwork along with the framework of teaching and assessment of the online AETCOM module. Activities for day 2 to day 6 were conducted as small group discussion sessions having students (169) divided into 4 groups. Each group consisted of approximately 40 students and 4 designated facilitators (one faculty member and three post graduate students). Groups were further divided in subgroups of ten students each on designated days for facilitation of discussion.

Formative assessment

Assessment was done on predefined criteria shared with the students during the first session. The criteria decided were as follows: a) Narrative writing b) Level of interaction during discussion c) Online written assessment having case based multiple choice questions and short answered questions (through a Google form link).

Any relevant submission of narratives was awarded with the highest possible score for the section. For participation during small group discussion, attended but not commented was given the lowest score, followed by participation by sending chat messages only and maximum scores for those who actively participated.

Feedback received

Feedback was received from 119 (70%) students with reference to the developed schedule by four criteria, each with a possible score ranging from 1-10. The mean (SD) score was 8.48 (1.07), 8.95 (1.11), 8.74 (1.11) and 8.57 (1.20) for level of satisfaction after completion of the module, appropriateness of the videos, relevance of discussion sessions and assessment criteria. The students also mentioned the selected videos, the structure of the online questionnaire for submission of narratives and discussion sessions which were participatory and voluntary in nature helped them to engage with and understand the topic. The themes which emerged from the students' responses along with some in-verbatim comments are given below.

Table 1: Day wise schedule: depicting learning outcomes and teaching learning methodology of online AETCOM module 2.4 titled “Working in a healthcare team” for phase II medical undergraduate course by the department of Community Medicine

Day	Learning outcomes of the sessions	Teaching learning activity
1	<p>Orientation: Making the students aware of activities and assessment plan of the module.</p> <p>To develop the skills in narrative writing</p>	<p>Didactic</p> <p>Large group teaching session by Faculty members with discussion on the schedule of the activities, introduction to the topic “Health care team”</p> <p>Session on narrative practices with examples</p>
2	<p>To demonstrate “good” team work in the hospital setting</p> <p>To demonstrate “bad” team work in the hospital setting</p> <p>To depict the crucial role played by members and leader in a health team in order to achieve a common purpose</p>	<p>Small group discussion sessions (40 students and 4 facilitators)</p> <p>Synchronous online sharing of 2 video segments, depicting good and poor team work (movie clippings):</p> <p>Following video demonstration, the group was further subdivided into 3 smaller sub-groups (10-12 students each) for peer group discussion reflecting reaction to videos. Each subgroup was facilitated by one postgraduate student.</p> <p>This discussion was followed by submission of structured online narratives (via shared Google form link).</p>
3	<p>Identification of narrative features in the submitted narrative</p> <p>Exploring the differences of the opinions, judgements which were expressed in narratives while describing the clinical encounters</p>	<p>Faculty facilitator led discussion on submitted narratives in small group session</p>
4	<p>Demonstration of teamwork in community setting</p>	<p>Video segment depicting teamwork of a health care team following a disaster.</p> <p>This was followed by peer group discussion in sub groups and submission of narratives as discussed in day 2</p>
5	<p>Similar objectives as of day 3</p>	<p>Facilitator led discussion as on day 3</p> <p>Sharing of the case (in the form of written text) at the end of the session. Students were briefed on day 1 that written assessment will be based on the case shared on day 5</p>
6	<p>Case based assessment</p> <p>Feedback</p>	<p>Assessment (online written) based on the case shared on the previous session</p> <p>Feedback (online written)</p> <p>Discussion based on the responses received from the students in the written feedback</p>

AETCOM: Attitude, Ethics and Communication module, MCQ: Multiple Choice Question

Learning the concept of team work

"I got to learn the actual meaning of a healthy teamwork which will eventually benefit us in future".

"The sessions allowed to us to have an open discussion about teamwork in hospital or in any other setting".

"We learned what is a good team, who is the leader and all that stuff".

The structured schedule

"I liked that the sessions as it was divided in groups, subgroups, stepwise manner [of] teaching for each day."

"Case/video based and interactive discussion brought out the theme of conversation, highlighting the more unsaid dos and don'ts of healthcare".

Selected videos helped us to understand teamwork

"The best thing about these sessions were the videos which were shown, they helped in having real good learning experience and examples of how teamwork, communication helps a doctor and medical staff to function efficiently".

"I loved the way the different scenarios in a medical setup were shown in the videos."

The online questionnaire which was based on questioning behavior

"The forms (Google form) which were given after [the] videos [were shown] were quite helpful to analyze the videos."

"The Google forms were also very appropriately designed which covered a lot of what was taught in the videos and the lessons we learned".

Discussion and learning from peers

"We the students came up with these answers by our own with some guidance from our teachers."

"After watching videos and cases, I liked the discussion part, because in discussion we learned many things from our colleagues too".

"The discussion was quite healthy and interesting and it felt good to share our point of view and hear others' opinion on the same."

The Novelty of the developed online schedule

"This way of teaching was a little unconventional for me since most of our studies are solely dependent on book cramming method and these sessions were like a breath of fresh air specially in the COVID times".

"It was a great alternative to physical teaching".

Participatory

"Everyone got a chance to speak and it was time-managed".

"I liked how everyone was able to express their views, contradict others' views and coming up with better judgment skills in the process."

Discussion

As the scheduled sessions were associated with affective domains of learning, creation of experiences from right socio cultural perspective was important (Zayapragassarazan *et al.*, 2019). A cautious selection of videos enabled us to use them as triggers to approach the mentioned competency. Videos are known to attend to fractal communication consisting of elements of educational impact, entertainment, conversation and novelty as illustrated by Meryn, 1998, Hurtubise *et al.*, 2013. Along with the videos we used a mix bag of different teaching learning strategies. The structured online questionnaire which students submitted immediately following the exposure to the videos worked as guided reflective writing tool. The similar strategies in medical education have also been mentioned by Charon (2001)

and Johna & Dehal (2013). Reflective writing helped a student to narrate and reflect on scenario shared through the video segments and found useful similar to the finding of a study done in Indian context by Savitha et al., 2021. The small group discussion sessions and use of breakout rooms enabled each student to participate in the discussion in a limited time frame. Students felt that the discussion with their fellow classmates and facilitators helped them to understand the concept of teamwork. Sharing insight gained by one with others in a monitored, supportive environment is a part of structured model of narrative medicine as noted by Charon et al., (2016) and Milota et al., (2019). That the students were receptive about the developed schedule is evident from the qualitative part of their feedback. The infrastructure available to us in the form of the availability of an online digital platform and trained faculty members helped in the process of development and implementation of this online AETCOM module.

Most of the faculty members of the medical colleges across the nation believe in the beneficial role of including AETCOM competencies in the new curriculum, though confusion still prevails about the nature of conducting formative assessments as reported by Ghosh & Bir (2021). We believe the assessment criteria developed by us will guide other medical institutions to develop similar tools of assessment for both offline and online assessment.

A significant limitation of this report is that our experience is based on only one module and implemented by one department involving only one particular semester of undergraduate study, thus limiting its generalizability.

Conclusion

Carefully developed structured strategies based on triggers such as videos can serve as a possible alternative to teach AETCOM competencies in case of shutdown of in person teaching in medical colleges.

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