Teaching and learning of attitudes, ethics and communication using the AETCOM module in India


Abstract

The National Medical Council of India has introduced AETCOM in its new CBME curriculum to focus on learning in the affective domain. Learning in the affective domain was hitherto relegated to the hidden curriculum, poses unique challenges, and requires use of additional teaching-learning [TL] methods that are not routinely used. Most medical college faculty members are unfamiliar with these methods. Case vignettes, video clips, book review, mock ethics meetings, field visits, story-telling (patients / caregivers / doctors), standardized patients, feedback from alumni/seniors, guest lectures, ward rounds with ethical checklists, newspaper clippings, assignments and projects, student seminars/debates and role plays are some methods that can be used to improve learning in the affective domain. Any of the teaching learning methods for affective domain listed above should be followed by reflection using Boyd’s triangular reflection model (What happened? So what? and Now what?). Teaching attitudes, communication and ethics cannot be done in isolation. It must be integrated into routine patient care and other everyday experiences that medical students are exposed to.

Key words: Affective domain, Competency, India, Undergraduate

Introduction

Medical education in India is at crossroads. The National Medical Council (NMC) has introduced Competency Based Medical Education (CBME) curriculum for undergraduate medical students in 2019 with the goal of producing “Indian Medical Graduates” (IMG) who function as physicians of first contact to the community while being globally relevant. The five roles that IMGs must fulfill to meet the above goal are that of a clinician, leader, communicator, lifelong learner and professional. To effectively fulfill these roles, the IMG must obtain a set of competencies at the time of graduation (National Medical Council, India - Competency Based Undergraduate Curriculum for the Indian Medical Graduate, 2018).

Prior to the implementation of the CBME curriculum, the focus was predominantly on the clinician role. The other roles were not formally taught, and affective learning outcomes were largely relegated to the “hidden curriculum” except for isolated attempts in a few medical colleges in India (Ravindran et al., 1997; Phansalkar et al., 2019). Students were expected to imbibe these aspects by observation. This hidden curriculum remained buried under the massive weight of knowledge and skills that the students perceived they needed to learn in order to pass exams.

A new initiative under the CBME curriculum is the introduction of a longitudinal modular program called AETCOM (Attitudes, ETHics, and COMmunication). It consists of 37 modules spread across four and a half years of the medical course with dedicated time for its implementation. These modules ensure that the domains of attitude, communication skills and ethics are taught directly and explicitly throughout the curriculum (Medical Council of...
India - Attitude, Ethics and Communication (AETCOM) Competencies for the Indian Medical Graduate, 2018). This is in line with the recommendations by the World Health Organization highlighting the importance of teaching ethics to medical students in South East Asian settings.

While the National Medical Council (NMC) has made it mandatory to implement the AETCOM module from 2019, its implementation poses considerable challenges. The basic medical education training course, which is mandatory for all medical teachers introduces the concept of AETCOM. Learning in the affective domain poses unique challenges which requires additional teaching-learning [TL] methods that are not routinely used. Most medical college faculty members are unfamiliar with these methods. The intention of this article is to introduce some of these methods and the theoretical frameworks underlying them so that they can be effectively utilized to implement AETCOM modules.

The affective domain – an overview and the Indian context

Learning is defined as change in behaviour in the desired direction (Tejinder, 2013). In a medical context, it involves application of knowledge (cognitive domain), ability to perform clinical examination and procedural skills (psychomotor domain) and capacity to effectively interact and communicate with patients (affective domain). The affective domain encompasses broad areas such as attitudes, communication skills, ethics, professionalism, empathy and compassion. Studies have shown that poor communication skills result in medical errors thereby compromising patient safety. The strength of the doctor-patient relationship is to a large extent dependent upon whether a patient senses that the doctor cares about him or her. The three words, “understand, communicate and act” form the basis of therapeutic action (Ratka, 2018). The present-day problem of violence against doctors probably stems from a lack of trust in the doctor-patient relationship.

Various theories that have been proposed to explain how attitudinal changes occur including behavioural, cognitive dissonance, affective-cognitive consistency, social judgment, and functional theory. Levels of learning in the affective domain have been defined by Krathwohl, Bloom and Masia (1964). Five levels have been described (Table 1) and provide convenient reference points to anchor the sequential acquisition of competence in the affective domain. Learning at a particular level is dependent upon the achievement of the levels below it (Miller, 2005).

<table>
<thead>
<tr>
<th>Level</th>
<th>Explanation</th>
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<tbody>
<tr>
<td>1</td>
<td>Receiving</td>
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<td>2</td>
<td>Responding</td>
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<td>3</td>
<td>Valuing</td>
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<tr>
<td>4</td>
<td>Organisation</td>
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<tr>
<td>5</td>
<td>Characterisation by a value system</td>
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Learning in the affective domain is arguably more complex than in the cognitive and psychomotor domains. Learning outcomes are often difficult to define resulting in challenges in teaching and assessment. Complex entities like emotions and ethical issues cannot be easily categorized into right and wrong. They require a nuanced consideration of different...
perspectives while considering the socio-cultural milieu, religious beliefs, and existing laws. This can make learning in the affective domain less controlled and predictable than the other domains. (Pierre & Oughton, 2007).

Methods for teaching the AETCOM modules – theoretical considerations and tool kit

Many instructional design models have been proposed for creating attitudinal change. Merrill's five principles to create instructional design strategies are the task principle, activation principle, demonstration principle, application principle and integration principle (Mueller, 2017).

Merrill suggests that learning should be centred around appropriate tasks. In the case of the affective domain, these tasks need to be carefully designed from the simple to the progressively complex, ultimately leading to the intended learning outcome. AETCOM module is structured sequentially such that content is presented in a stage appropriate manner. The activation principle necessitates that the learners identify pre-existing knowledge and attitudes. This could occur by providing learners with real or imagined situations and asking them to describe their thoughts and feelings. The demonstration principle states that the intended skill or attitudinal change needs to be demonstrated to the learners. The application principle requires students to apply their learning in new and authentic situations. In the affective domain, this could include use of simulation, role play and peer collaboration. The integration principle refers to the real-life application of what has been learned. Reflections and discussions are ways in which this process can be facilitated (Lim, 2017).

AETCOM module mentions some methods that can be used for teaching in the affective domain. Most of these are in the form of case scenarios on common issues related to ethics and communication. A hybrid PBL model and student narratives have also been proposed as a means for students to record, reflect upon and discuss their experiences. However, not all modules have suggested teaching methods. It is left to the discretion of the teacher to choose the appropriate TL method for a particular session. Many of the TL methods that are routinely used in the rest of the curriculum such as lectures, tutorials, practical sessions and bedside case discussions need to be supplemented by other methods. A brief description of some of these methods is given below.

Case vignettes

Case vignettes are the predominant teaching method suggested in the AETCOM module. They promote critical thinking and discussion among students and act as a guide for future action when faced with similar situations. Cases should be aligned with the specific learning objectives [SLO] of the session. Care should be taken that the case vignettes are relevant to issues encountered in routine patient care. Clear guidelines and sufficient time should be provided for discussions (Dong et al., 2018).

Video clips

Video clips include movie clips, whole-length films, documentaries, television series or animated videos. Cinemeducation (cinema + medicine + education) is the use of films in medical education (Kadeangadi et al, 2019). Video clips provide realistic visual and auditory experiences such that emotions can be better felt by the learner. They are familiar, evocative, nonthreatening, and entertaining for the students. The teacher must carefully select video clips that resonate socially, culturally, and linguistically with students. It is essential that contexts in the clips are clearly understood by the teacher and linked to the SLOs for the session. Good audio and visual quality are prerequisites. Clips could be followed by group work, discussion, and presentation in plenary sessions. Lists of popular movies and television shows that depict issues related to ethics and doctors are available. These can be edited using free video editing apps.

Book reviews

Books or excerpts from books written on doctors or by doctors allow students to experience issues that may fall outside their
immediate personal experience and act as thought experiments that expand the reader’s understanding. This sets the reader on a “thought journey” that parallels that of the protagonist and allows deeper comprehension of issues. The aim is for the student to read the book critically and not as reading a textbook for an exam. This could be followed by a presentation, group discussion or a written reflective narrative (Hussein, 2015). Some books that can be used as resource material include “Being Mortal” by Atul Gawande, “When breath becomes air” by Paul Kalanithi, “Frankenstein” by Mary Shelly and “Coma” by Robin Cook.

Mock ethics meetings

Simulated case scenarios are presented to a mock inter-professional team consisting of student volunteers and faculty members to stimulate discussion on key ethical concepts and how care priorities vary between different stakeholders. This is followed by structured debriefing where faculty members guide a discussion on factors that impacted decisions, on how alternative outcomes could potentially result from different decisions made and on how students’ learning today can be applied to future experiences (Wonder, 2017).

Field visits

Field visits should be planned to various health related governmental and nongovernmental organizations and to communities. These help medical students to broaden their horizons and to appreciate the role of teamwork in provision of holistic health care. Interaction with various stakeholders makes learning active and improves communication skills. Field visits are most useful when done in small groups. Adequate planning is required in organization of field visits and the process is resource intensive. Field visits should always be preceded by briefing and should end with debriefing (Ashish et al., 2017).

Story telling

Stable patients with chronic diseases, caregivers of patients and doctors could be invited to address students in classroom settings. This exposes students to different perspectives and can help illuminate issues of diversity. The first-hand experience gained by interacting with invitees leaves a lasting impression on students and is a strong determinant of behaviour change. Students exposed to patient narratives exhibit better communication skills, greater empathy and self-reflection capabilities (Liao & Wang, 2020).

Standardized patients

Standardised patients are actors who have been trained to depict a patient’s condition including symptoms and social situations. They are effective in teaching and assessing competencies that involve interviewing skills, counselling, physical examination and situations that involve high emotions such as giving bad news or de-escalating an upset family member. Paramedical staff, clerical staff and postgraduate students can be trained as standardised patients.

Interactions with near-peers and alumni

Panel discussions with near-peers and alumni who have gone through life experiences could provide practical advice on ethical issues. Students are likely to relate to near-peers and could help build strong student networks within the institution and facilitate positive systemic changes (Singh, 2014). These could be organised at regular intervals and each session could focus on one component e.g., communication, ethics and professionalism. Involving alumni is often not easy due to logistic issues. Alumni association of the institute can play a key role in liaising with alumni.

Guest lectures

Interactive lectures and talks from experts in the field organized by leveraging varied expertise available in medical colleges provide unique experiences for students. Passive guest lectures could be made interactive by ensuring that students submit assignments related to the topic prior to the lecture. This prior familiarization will ensure that the learners are able to engage more purposefully with the
content and ask meaningful questions to the speaker (Dalakas, 2016).

**Ward rounds**

During ward rounds, specific time can be devoted to discuss aspects of affective domain along with the clinical aspects. Suitable checklists could be shared with the students to facilitate learning. As learning takes place in a real-life context, this method emphasizes the pivotal role played by the affective domain in patient care. Sensitisation of the teaching faculty is an important prerequisite for the success of this method (Sokol, 2009).

**Newspaper clippings**

Newspaper articles can be used as triggers for discussion on topics like ethics, health research, health systems and medical education. Students could share relevant newspaper clippings that catch their eye and triggers discussions for debates, panel discussions and student seminars. Students could be asked to compare and contrast the manner of reporting of a health-related issue in different newspapers. Learners could be asked to write an editorial about a contemporary topic (Kirkpatrick, 1994).

**Assignments and projects**

Assignments and projects related to events with major ethical concerns are potentially useful methods to encourage learners to delve deeper into complex topics. Guidelines to improve learning from assignments include the provision of detailed instructions, use of suitable open-ended questions, suggesting key references and selecting topics that students can personally relate to. The use of too many questions, vague instructions, rigidity in the expectation of ‘correct’ answers and unrealistic deadlines are to be avoided.

**Student seminars**

Interactive seminars provide a viable solution to overcome the challenges posed by high student teacher ratios. These could be structured around a realistic case scenario with pertinent question. Real cases that students encounter during their training can be used to discuss relevant ethical issues (Donaldson, 2010). Many solutions have been proposed to prevent seminars from becoming didactic exercises that hinder learning. Prior preparation by the students before the seminar is an important and can be facilitated by sharing appropriate resources accompanied by key questions. Faculty members must ensure that adequate time is given to students for reflection, group activities and plenary discussions.

**Debates**

Debates are useful to address controversial and complex topics in which different perspectives need to be considered. When students participate in debates, they search and critically analyse relevant information and persuasively communicate their viewpoint to the audience. Debates break the monotony of the routine curriculum and are relatively economical to organize (Allam et al., 2021). Debate formats that can be used include four-corner debates, role-play debates, fish-bowl debates, thin-pair-share debates, meeting house debates and problem-solving debates. If a traditional debate format is utilized, instructing all students to come prepared and randomly selecting the participants on the day of the debate may ensure more participation. It must be ensured that students are made aware of the objectives of the debate, the format that is used and the judging criteria. Additionally, sufficient time needs to be given to students to prepare for the debate.

**Role plays**

A role play is an experiential method of learning where participants are required to enact characters in simulated but realistic situations. Guidelines to maximize learning from role plays include having well-defined SLOs, creation of realistic scenarios, clear instructions about roles to be played, provision of adequate time for practice and structured debriefing (Nestel & Tierney, 2007). In a large classroom setting, students can be split into groups for simple role plays. Some students can observe with checklists to enable provision of structured
feedback. These roles can then be rotated to ensure that students experience various perspectives related to the scenario.

**Theatre**

Skills like ability to listen, empathise, manage emotions and respond appropriately in a timely manner that are required in theatre are also required by medical professionals (De Carvalho Filho et al., 2020). Guidelines for incorporating theatre in medical education include appropriate and well-defined SLOs, collaboration with experts in theatre, providing a clear context to students, choosing a setting without space constraints, focussing on teamwork and adequate feedback. A study among pre-medical and pre-biomedical students suggested that theatre is useful in enhancing creative thinking and communication skills (Phelps et al., 2021).

In addition to the above methods, medical college teachers need to be aware of the conscious and unconscious learning that students imbibe from role modelling. Students learn many facets of affective domain by observing the interpersonal interactions of their teachers.

**Reflections**

Reflection is a metacognitive process that occurs before, during and after situations with the purpose of developing greater understanding of both the self and the situation so that future encounters with the situation are informed from previous encounters. (Sandars, 2009) Reflective learning is the heart of affecting domain and involves deliberate and systematic attention to one’s thoughts, understanding and actions in relation to a particular experience leading to integration of knowledge with action. Reflection is critical for medical students to become competent and compassionate doctors. A systematic review among residents showed that reflective learning had a positive impact on depth of learning, empathy and professionalism (Uygur et al., 2019). The AETCOM module proposes the extensive use of reflections as a learning tool. Any of the teaching learning methods for affective domain listed in this article should be followed by reflection. The teacher should schedule adequate time for this in lesson plan.

Many models of reflective learning have been proposed. Boud’s triangular representation model has three key reflective questions (Figure 1). The first step is the experience taking place during which students are exposed to different stimuli as part of the educational strategy (“What happened?”). In the second step, students reflect on the experience within their minds and dwell upon what it meant to them (“So what?”). This includes thoughts, feelings, emotions, ideas and opinions of students related to the experience. The third step is the learning phase (“Now what?”) where students document specific changes in intended behaviour when exposed to similar situations in future.

![Figure 1: Boud's triangular reflection](image-url)
NMCs AETCOM module is a good beginning to introduce educational strategies related to affective domain. However, teaching attitudes, communication and ethics cannot be done in isolation. It must be integrated into routine patient care and other everyday experiences that medical students are exposed to. The role of medical college teachers is to capture teachable moments and incorporate teaching of affective domain into theory, practicals and clinical sessions. This can be done by providing the students with rich and varied experiences followed by provoking them to reflect on their learnings from these experiences.

Table 2: AETCOM toolkit

<table>
<thead>
<tr>
<th>Method</th>
<th>Example</th>
<th>Resources needed</th>
<th>Group Size</th>
<th>Difficulty level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Case vignettes</td>
<td>Case scenarios on selected issues</td>
<td>Case vignettes prepared by faculty</td>
<td>Small</td>
<td>Easy</td>
</tr>
<tr>
<td>2 Video clips</td>
<td>Movie clips, whole-length films, documentaries, television series or animated videos</td>
<td>Video clips downloaded from internet Basic video editing software may be needed</td>
<td>Small and large</td>
<td>Moderate</td>
</tr>
<tr>
<td>3 Book Review</td>
<td>Books or excerpts from books written on experiences of doctors or by doctors</td>
<td>Copies of books Photocopies / soft copies of excerpts may be used</td>
<td>Small</td>
<td>Easy</td>
</tr>
<tr>
<td>4 Mock ethics meetings</td>
<td>Simulated case scenarios presented to a mock inter-professional team</td>
<td>Student volunteers Scenarios for discussion</td>
<td>Large</td>
<td>Easy</td>
</tr>
<tr>
<td>5 Field visits</td>
<td>Visit to governmental and nongovernmental organizations and to the community</td>
<td>Vehicle Permission Faculty</td>
<td>Small</td>
<td>Difficult</td>
</tr>
<tr>
<td>6 Story telling (patients / caregivers / doctors)</td>
<td>Sharing by stable patients with chronic diseases, caregivers of patients and doctors</td>
<td>Pre-identified patients /caregivers / doctors</td>
<td>Large</td>
<td>Moderate</td>
</tr>
<tr>
<td>7 Standardized patients</td>
<td>Actors trained to depict a patient’s condition</td>
<td>Volunteers Case scenarios for role play</td>
<td>Large</td>
<td>Easy</td>
</tr>
<tr>
<td>8 Feedback from alumni/seniors</td>
<td>Panel discussion with a group of alumni</td>
<td>Large hall with seating and a good audio system.</td>
<td>Large group</td>
<td>Not easy, but not difficult either</td>
</tr>
<tr>
<td>9 Guest lectures</td>
<td>Experts in the field of (Eg. Genetics) can be asked to give a session on ethics</td>
<td>Large hall with seating and a good audio system.</td>
<td>Large group</td>
<td>Easy</td>
</tr>
</tbody>
</table>
Conclusion

AETCOM module as a focussed educational strategy ensures that the affective domain no longer remains hidden but is explicitly taught and assessed. Medical college faculty need to be sensitised and exposed to the various teaching learning methods for affective domain. This will enable building a multidisciplinary facilitator team to teach AETCOM.

It is essential that we provide contextual learning experiences to students to learn AETCOM, integrate into routine patient care, utilize as many teachable moments as possible and vary the TL methods.

Finally, the most important aspect, role modelling – the change begins with medical teachers. When demonstrating the habitual usage of AETCOM skills in regular professional interactions, the students will definitely imbibe it.

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