INTRODUCTION

Healthcare delivery in India can be traced back to the time of Indus Valley Civilization. Excavations of Mohenjo-Daro and Harappa had revealed a well-developed healthcare delivery system giving importance to primary level of healthcare. A formal education system seems to have been evolved by the Buddhist through the
University of Nalanda. The Chinese traveler Hiuen Tsang has given a vivid description about the department of medicine at Nalanda University (1). The Indian medical education system which is one of the largest in the world is now under criticism by its stakeholders (2, 3). An assessment of the prevailing situation of medical education in India demands new approaches towards shaping the mind, hand and heart of physicians (4). The Indian Medical graduates lag behind in communication skills and ethical literacy and do not have right attitude towards the ailing and obviously are not able to gain the confidence of their patients (1, 5). Fundamental change in medical education will require new curricula, new pedagogies with active learning methods, attitudinal changes and new forms of assessment (1, 6–9).

In order to make the existing MBBS curriculum more effective as per the health care needs of the society, Medical Council of India (MCI) has proposed an undergraduate medical education programme designed to create “Indian Medical Graduates” who will have the necessary competencies (knowledge, skills, and attitudes) to assume their role as health care providers to the people of India and the world. The goals of the MBBS training programme as proposed by MCI are to create doctors with requisite knowledge, skills, attitudes, values and responsiveness, so that they may function appropriately and effectively as physicians of first contact for the community in the primary care setting both in urban as well as rural areas of our country. In order to fulfill these goals, an Indian doctor must be able to function appropriately in the roles of a clinician, leader, communicator, lifelong learner and professional. Well-designed and well-implemented competency-based learning will help the medical students to acquire the above said competencies at the time of graduation (10–12). In this context, MCI has also taken a step forward by proposing new teaching-learning approaches including a structured longitudinal programme on attitude, ethics and communication, which is known as the attitude, ethics and communication (AETCOM) competencies (12). It offers a framework of competency-based learning in the AETCOM domains that a medical professional must possess at the time of graduation to effectively fulfill the functions of an Indian Medical Graduate (13). The proposed MCI’s AETCOM has 27 case-based modules designed to be transacted over a period of 139 hours in longitudinal manner across four professional years.

Table 1 shows the modules to be taught in respective professional years along with suggested hours for transaction of the module. Initially the AETCOM module was introduced as Attitude and Communication Module (ATCOM) (14) in 2015 and later it was renamed as AETCOM in 2017 to provide sufficient emphasis to the ethical component (15). This was prepared by the Reconciliation Board of MCI and has been approved for publication by the Academic Committee and the Executive Committee (12). Pre-introduction trials of the module is underway at Regional and Nodal Centres of the MCI to check the usefulness and validity of the module. The results have been very encouraging (15).

MCI before implementing it in MBBS curriculum felt the need to train the faculty of medical colleges through its nodal and regional centres. We analysed the open-ended feedback received from the participants participated in the last nine AETCOM sensitisation workshops conducted in a tertiary care teaching hospital which is also a MCI Regional Centre for conducting faculty development programmes. The feedback from the faculty participants of AETCOM were compiled and analysed for better understanding of their concerns regarding AETCOM. Based on these compilations the authors have discussed about the organisation of AETCOM module and the anticipated challenges in transacting the module at undergraduate level under the following headings.
AETCOM module will be more effective in developing attitude and professionalism among medical students. One way of addressing it is by adopting educationally effective selection strategies such as aptitude tests, weightage to academic records, situational judgement tests, personality assessment including emotional intelligence and multiple mini interviews.

There is also serious shortage of trained faculty to teach this module, shortage of trained mentors and role models. The challenges like identification and creation of relevant resources for transacting this module and intricacies in dealing with the uncertainty of concrete elements of AETCOM module such as political, social and moral conflicts can be addressed by creating training opportunities in above areas for medical teachers who are the custodians of future doctors. The biggest challenge is how to assess AETCOM/professionalism earnestly. Standardisation of appropriate tools to assess AETCOM components and training of faculty in using these tools will be the solution to this issue. The sustainability of the module should be taken care of through implementation and enforcement mechanisms.

### Challenges in Implementing AETCOM

AETCOM module will pave way for implementation of competency-based medical education and we have a long road ahead towards implementing competency-based medical training and ensuring its sustainability, the principal responsibility of which lies on the shoulders of medical school leaders. AETCOM has 27 modules and need a minimum of 139 hours for transacting these modules. In the current scenario curriculum hours are already full and hence, phasing and linking AETCOM with the existing curriculum is going to be a big challenge. Hence, it is pertinent to adjust the curriculum hours to effectively integrate the AETCOM components along with the routine curriculum. This can be done by reducing the didactic teaching hours and fostering of self-directed learning. The selection procedure for the medical course in our country has been criticised as it does not consider the humanitarian attitude of a candidate which is much needed to become a doctor. The current widely used method of selection is by conducting a nationwide entrance exam which is a knowledge based test. If this issue is addressed at the entry level of the students, implementation of

### Table 1: AETCOM modules to be transacted in respective professional years along with suggested hours for transaction of the module

| Professional year | Modules | Recommended hours |
|-------------------|---------|-------------------|
| I                 | 1. What does it mean to be a patient? 2. What does it mean to be a doctor? 3. Cadaver as first teacher 4. Doctor-patient relationship 5. Communication–1 | 34 |
| II                | 1. Working in healthcare system 2. What does it mean to be a family member of a patient? 3. Healthcare as a right 4. Communication–2 5. Medico-legal and Ethics–1 to 4 | 35 |
| III               | 1. Communication–3 & 4 2. Medico-legal and Ethics–5 to 7 | 25 |
| IV                | 1. Communication–5 2. Medico-legal and Ethics–8 to 15 | 45 |
effective monitoring mechanisms in place will take care of sustainability and quality improvement of the AETCOM. Incentives mechanisms will also encourage adoption of the module and adaptation to the module.

**Reliable Methods for Assessing Professionalism**

AETCOM module is aimed at developing competencies of attitude and professionalism. In competency-based medical education, the outcome is expressed in terms of competencies. Assessment in medical education has been under criticism and lot of newer methods of assessment are in place across the globe which are proved to be effective in assessing the behavioural practice of trainees in clinical settings. Continuous and comprehensive internal assessment by various stakeholders will prove effective in assessing the core areas of attitude and communication. This requires additional infrastructural, personnel and logistic support from the institution. Faculty and other assessors need to be trained in using newer methods of assessment and assessment tools. This requires lot of effort from the implementing agencies to train the administrators, faculty and other stakeholders in standardising appropriate tools for assessing the core areas of professionalism which is also a big challenge.

**Role of Technology in Teaching, Learning and Assessing the AETCOM Module**

Technological advancements have taken place and every day some newer technology is being introduced in the field of higher education. Though there are many technologies available but most of them are underutilised or unutilised in medical education. Unconventional methods and affective teaching methods using movies, reflective writing or narratives, storytelling and cartooning will be effective in bringing the desired outcomes. Technology assisted teaching-learning using e-portfolios, online case-based scenarios and online testing would save time and sustain interest in subjects among learners. Formative feedback can be facilitated by technologies such as connected classrooms, videography, online formative quizzes, etc. Technology-

**Experiential Learning for Fostering Professionalism**

Till date, medical curriculum and training programmes have been designed around specific educational or learning objectives addressing primarily the cognitive (head), psychomotor (hand) and affective (heart) domains. However, currently, medical education in India deals greatly with the head, meagerly with the hand and nearly neglects the heart, thus failing to produce a clinician who would understand and provide holistic care (i.e., preventive, promotive, curative, and palliative care) with compassion. The modules in the AETCOM are case-based modules and require proper organisation and delivery of concrete learning experience to achieve the desired goals. Certain areas of learning such as communication skills and ethical handling of situations need well identified concrete experiences to achieve the desired behavioural outcomes. The socio-cultural perspective should be given due importance while imparting experiential learning. Learning from experience in practice (reflection) and narratives can also be included as active teaching-learning components.

Early clinical experience, student clerkships and residency training were also suggested for experiential learning. Though experiential learning is an effective means, the biggest challenge lies in the availability of logistics and institutional academic, organisational and professional culture. Again, training of faculty in these areas is very vital to achieve the desired goals of the AETCOM.
assisted formative assessment represents a powerful option to promote improved classroom communication and develop proper attitude towards the subject.

**CONCLUSION**

In general, the record review of participants feedback revealed that the participants appreciated and highly valued the steps taken by MCI to bring in changes in the existing curriculum. Many have agreed that MCI has stood up to meet the need of the hour component of medical education in India. The module has specified the competencies with regard to attitude, ethics and communication needed to be taught in each year of the medical course and a whole hearted effort has been given in preparing this module. The challenges that would emerge during the course of implementation of AETCOM and ways to encounter them were well reflected in the feedback of the participants. The need for adopting experiential learning strategies, use of technology in teaching, learning and assessment and the importance of newer methods of assessment is essential for aligning the curriculum and teaching learning experiences with assessment. This exercise provided the participants an opportunity to generate ideas in a short span of time and conducting such sensitisation programmes will generate more ideas and suggestions to refine the content and structure of AETCOM that will help to encounter the challenges in implementing the AETCOM more effectively.

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