Abstract
Context: Most vital areas of patient management such as empathy, professionalism, and ethics are lacking in fresh undergraduates. These areas are considered to be part of hidden curriculum, and as these are not formally taught, we lack competent medical graduates. Introduction of medical humanities (MH) early in the medical curriculum can help to inculcate required soft skills. Aims: This study aims to develop, administer, and evaluate MH module in 1st year MBBS students. Settings and Design: Module of MH was introduced among 150 1st year MBBS medical students. Subjects and Methods: After taking permission from ethical committee of the institute, a core committee for development of MH module was formed. A standardized validated module for MH comprising of three sessions was formed and was introduced in 1st year MBBS 150 students. Evaluation was done in the form of student and faculty feedback questionnaire, consisting of open- and closed-ended questions. Statistical Analysis Used: Analysis was done using descriptive statistics using mean and standard deviation. Results: According to participants’ feedback and perception, mean overall rating of MH module was 4.69, indicating that it was received well by the students. Out of 3 sessions conducted, students gave maximum grades to session 2: cinemeducation. Results of faculty feedback questionnaire indicated that MH is needed and should be introduced in every batch of 1st year MBBS and should be continued longitudinally. Conclusions: Awareness, knowledge, and attitude of students improved as a result of MH module. Our results indicate that such modules should be implemented in undergraduate medical curriculum.

Keywords: 1st year MBBS, medical humanities, module

Introduction
The scientific revolution was driven by the discoveries of Copernicus and Galileo, which spurred a whole change in the understanding of the world around us and beyond us and forced us as humans to rethink our place within it. Human beings used science and reason to navigate the way forward. This age was crystallized by French philosopher Rene Descartes in one phrase: “I think, therefore I am.” The ability to think distinguished us humans from all animals around us.

Today, we are entering a technological revolution. This has forced us to ask a profound question – “What does it mean to be humans in the age of intelligent machines?” The answer is human beings will have one thing that machines will never have: “a heart.” Thus, the technological revolution will force humans to create more value with hearts and between hearts. Science, technology, engineering, mathematics (STEM) jobs will benefit more by creating value with hearts. Attributes such as passion, character, and collaborative spirit cannot be programmed. These attributes can definitely be taught by teaching humanities – arts, music, poetry, history, literature, and philosophy to STEM students. Academics in STEM will have an impact by learning humanities – enabling them to write interesting, contextual narratives for journal articles, and grant applications. Medicine is both a science and art. Medical students, who will be one of the future STEM professionals and academics, can benefit greatly if they are taught the humanities. Our current traditional undergraduate curriculum is such that the qualifying undergraduates are well versed in cognitive and to some extent in skills domain; however, they lack attributes related to affective domain. Most vital areas of patient management such as empathy, professionalism, and ethics are lacking in fresh undergraduates.[1] The real problem is most of affective domain is supposed to be “hidden curriculum,” which the students are supposed to “catch.” Our medical curriculum is largely scientific and evidence based[2] and has forgotten that medicine...
in addition to being science is also an art. We require “humane” doctors, who can apply evidence-based scientific knowledge with compassion and understanding on patients, as patients are after all humans. The problems of real patients are often related to social, cultural, religious, and spiritual factors, in addition to mere scientific factors, and we need to address these factors too, for a competent Indian Medical Graduate. By introduction of humanities in undergraduate medical curriculum, we can lay foundation of teaching these neglected areas of curriculum.\textsuperscript{[3,4]} Humanism is considered to be one of the strong pillars of professionalism. The dictionary meaning of “humanities” is “learning or literature concerned with human culture, especially literature, history, art, music, and philosophy.”

Medical humanities (MH) are the application of the techniques of the traditional humanities fields to medical practice. MH have been defined by Evans as an integrated, interdisciplinary, philosophical approach to recording and interpreting human experiences of illness, disability, and medical intervention.\textsuperscript{[5]} Many studies on MH has justified the use of the arts and humanities in terms of the favorable educational outcomes for future doctors.\textsuperscript{[3,4]} MH has become part of curriculum in medical education in the USA, the United Kingdom, and Australia.\textsuperscript{[6,7]} The aim of our study was to develop module on humanities for medical students and introduce it among 1\textsuperscript{st} year MBBS students. Objectives were to sensitize and train faculty in MH, prepare a MH module, introduce MH module in 1\textsuperscript{st} year MBBS, and evaluate its effectiveness.

### Subjects and Methods

Module of MH was introduced in 150 medical students of 1\textsuperscript{st} year MBBS. Permission of ethics committee of college was obtained before commencement of the project. All faculty members had previous training of Attitude and Communication module. MH module was prepared by core committee members with inputs from external faculty. As the students belonged to preclinical years, a lot of brainstorming was required to come to common consensus regarding topics to be included and appropriate teaching-learning methods to be adopted. The topics covered during sessions included various attributes related to humanities such as empathy, compassion, confidentiality, communication, what it means to be sick, duties of a doctor, the doctor–patient relationship. Peer validation of module was done by internal as well as external faculty. Modifications were done after inputs from faculty. All the three sessions were implemented during routine physiology practical classes, wherein students come in group of 30. This group was divided into small group of 15 each. Each small group was facilitated by trained faculty. Each session lasted from 1.5 to 2 h.

Session I of module was introduced in the form of think pair and share in small groups in which attempt was made to extract need of MH from students themselves. Students were asked to recollect their experiences with doctors, either with them or any of their relatives. Leading questions were asked to students like:

Do you feel that all doctors who have ever consulted sympathetic toward you? Did doctor talk in polite manner with you or with patients? Did the doctor give enough time for management of patient? Did doctor give opportunity of talking to you/patient? What according to you could have been done by doctor which could have been satisfactory? Have you heard about litigations by patients against doctors?

Students were asked to discuss in pairs and then discuss in front of whole group. Discussions were built up by facilitators based on responses of students, and thus, need for MH was extracted from students themselves.

Session II of module included Cinemeducation, in which all students were provided with soft copies of a medical series episode involving various attributes of humanities. Students were asked to reflect on attitude of 4 main characters of episode. Leading questions put forth regarding each character like:

Do you think attitude/behavior of character was appropriate? If yes, why and if no, why? What according to you could have been done?

Attempt was made to make students aware of attributes of humanities such as empathy, compassion, communication, duties of doctor, doctor–patient relationship, confidentiality. This was followed by group discussion in small groups.

Session III included case scenarios regarding various aspects of MH. Students were asked to discuss case scenarios among themselves followed by presentation of summary in front of the whole group.

Students were asked to maintain log book throughout implementation of module.

Evaluation of module was done by analysis of student feedback questionnaire comprising of both open- and closed-ended questions and core faculty feedback questionnaire comprising of open- and closed-ended questionnaire.

### Results

Out of 150 students, 148 students attempted the feedback questionnaire comprising of open- as well as closed-ended questionnaire. Mean overall rating of the module was
4.69 (1 = Poor, 2 = Average, 3 = Satisfactory, 4 = Good, 5 = Excellent), indicating that it was received well by the students. Out of 3 sessions conducted, students gave maximum grades to session 2: Cinemeducation [Table 1].

Results of analysis of open-ended questions showed learning by students. Students learned various attributes related to MH such as meaning of MH and its importance; attributes of MH including empathy, compassion, communication; meaning of confidentiality, empathy, compassion; duties of a doctor; and importance of appropriate communication. Students ‘particularly liked new approach to teaching-learning; novel topic; cinemeducation; small group activity; and interactivity. Students were also of the opinion that MH is needed in undergraduate curriculum and module should be introduced every year.

However, students were of the opinion that time allotted to each session was less; number of faculties was less; time allotted to each student for discussion was less; and group was large.

Students also gave certain suggestions for improvement such as time allotted to each session should be increased; more sessions should be included; and sessions should continue throughout 1st year MBBS.

Faculties were of the opinion that teaching MH was time-consuming; MH improved communication between faculties and students, as well as among students; case scenarios should be modified; and more sessions should be prepared [Table 2].

**Discussion**

Introduction of MH modules in many foreign universities have shown positive effects on improvement of knowledge and attitudes among medical students.\(^6\)\(^-\)\(^7\) Dhaliwal et al, have proposed ABCDE paradigm – an integrated, interdisciplinary MH approach to teach medical students – comprising of: appropriate, analytical attitude, ethical and professional behavior, effective communication, respect for diversity, empathy.\(^8\) The MH group at University College of Medical Sciences, Delhi has been organizing a series of workshops “Theatre of the oppressed” to explore MH.\(^9\) MH can have both instrumental and noninstrumental functions in medical curriculum.\(^7\) At KIST Medical College, Nepal, a MH module was conducted for faculty. Their result concluded that the module was well appreciated by faculty.\(^10\) In our study too, the module was appreciated and well taken by faculty. Faulty was of the opinion that though the module was time-consuming, it was necessary for undergraduates and should be introduced in every batch of MBBS students. Such modules should be spread longitudinally for maximum impact on Indian Medical Graduates. MH module titled “Sparshanam” had been conducted for 1st year medical students, using literature through small group activities, case scenarios, role plays, debates, etc., with encouraging results.\(^11\) In our study too, the students feedback was encouraging. The students particularly liked the novel method of teaching-learning, interactivity, and small group discussions which facilitated their learning. Out of teaching-learning methods used, students gave Cinemeducation high ratings, indicating that Cinemeducation can be effectively used for making students learn attitudinal domain. Rogozhnikova in his study has concluded that humane attitude to a person is an urgent pedagogical problem and medical students lacked appropriate knowledge regarding it.\(^12\) While conducting sessions on MH, we realized that students lacked knowledge and attitude regarding humanities. Students could grasp basic fundamentals of humanities as is evident from their feedback regarding what they learnt during sessions. Study by Gurtoo et al. concluded that the positive response of students toward MH module was indicator that it could be integrated within undergraduate medical curriculum. In our study, both students as well as faculties were of the opinion that MH curriculum should be included as part of medical curriculum. Introducing it as part of regular curriculum may solve many issues regarding its implementation such as shortage of time, trained faculty, and required infrastructure. Caroline Wachtler\(^14\) in his study had concluded the same. Gurtoo et al.\(^13\) in their study concluded that acceptability and feasibility of MH curriculum were high. Students in preclinical years are highly receptive and this can be exploited to mold them to imbibe various attributes of humanities. However, for more

| Table 1: Results of student feedback questionnaire regarding individual sessions (n=148) |
|---------------------------------|-----------------|-----------------|-----------------|
| **Content (content of session was appropriate)** | **Presentation (presentation was good)** | **Usefulness (session was useful in terms of learning)** |
| Session I | 4.47 (0.45) | 4.61 (0.48) | 4.18 (0.39) |
| Session II | 4.87 (0.32) | 4.94 (0.22) | 4.83 (0.36) |
| Session III | 3.67 (0.46) | 3.85 (0.35) | 3.30 (0.46) |

**Table 2: Faculty feedback results (n=9)**

| **a** | **b** | **c** | **d** |
|-------|-------|-------|-------|
| MH is needed for undergraduate students | Students were interested throughout the module | MH should be continued as longitudinal module throughout MBBS course | MH should be implemented in every batch of 1st year MBBS |
| Mean | 4.22 | 4.44 | 4.66 |
| MH: Medical humanities | | | |
effective impact, MH module should be developed and implemented longitudinally so that students go on adding on their perceptions and awareness of various aspects of humanities, as they move forward in their medical curriculum.

Conclusions

Development and introduction of MH module was well taken by the students as well as faculties. Our results indicate that such modules should be implemented in undergraduate medical curriculum. Introducing MH module has huge potential to improve competency of medical graduates. This in turn will lead to better doctor–patient relationship, resulting in less conflicts, benefiting health care system as a whole.

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Conflicts of interest

There are no conflicts of interest.

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