Development and Introduction of Module on Medical Ethics in Patient Care To 2nd Professional MBBS Students

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ABSTRACT

Background: There is complete absence of teaching of ethics as a part of medical curriculum. There is now an urgent need to teach ethics to medical graduates in India because of increasing incidence of disconnect between doctors and patients leading to allegations like unethical treatment practices by doctors and use of force by patients and relatives against doctors. Medical Council of India (MCI) has also realized the urgency to impart the training of ethics to medical graduates in India as described in its Vision-2015 document.

Aim and Objectives: To develop a module on "Medical Ethics in patient care" and to assess its feasibility.

Methodology: The study was conducted in the Department of Pharmacology, Gian Sagar Medical College and Hospital, Punjab from the period of March 2017 to December, 2017 after IEC approval. The topics to be covered in the module for teaching "Medical ethics in patient care" were finalized through Focus Group Discussions (FGDs) with the core faculty and the members of Medical Education Unit (MEU). A module for teaching Medical ethics in patient care was developed. Module was of 10 hours' duration and involved interactive lectures, PowerPoint presentations, case-based learning as the most common teaching-learning methods. Along with the module, pre-post-test questionnaire to assess the improvement in the knowledge of students was developed and validated. Feedback questionnaires, based on 5-point-Likert scale, were developed and validated to know the students' perception regarding the teaching of medical ethics and faculty's perception on the effectiveness of the module. A pilot run of the module was conducted on 15 students of 2nd Prof MBBS to determine the feasibility of the module. Pre-post-test questionnaires were administered to the students and the feedback taken from the students and the participating faculty.

Findings: A module on medical ethics on patient care was developed and validated. There was significant improvement in knowledge of the students as evident from their pre and post-test scores (10.47 to 25.47). The improvement in knowledge of various aspects of medical ethics was also calculated. There was a statistically significant improvement in knowledge in all sessions. The observations of the qualitative data analyzed from the feedback given by the students revealed that they found it useful and relevant and would implement the knowledge gained.

Conclusions: The feedback of the students and the faculty was very positive and encouraging. The development of this module would help in teaching the 2nd Prof students in medical ethics, which would be helpful to them in clinics and life-long. The seed of medical ethics would help grow a tree of good doctor-patient relationship which would ultimately help to grow health of the society.

Keywords: Medical Ethics, Module, 2nd Professional Students.

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INTRODUCTION

Ethics is defining and defending the concept of right and wrong. Medical ethics is a rather young academic field that is emerging as a moral enterprise against the background of the revival of applied ethics in the second half of the 20th century.[1,2]

Medical ethics is the extrapolation of ethics for its use in patient care. There are four pillars which build up the concept of medical ethics-autonomy, beneficence, non-maleficence, and justice.[3] The principles of medical ethics, derived from Hippocratic oath, are

used to define the various situations in patient care and help make correct moral decisions.[3] The first use of medical ethics was in dealing with human experimentation. Gradually, with technology directly affecting life at levels like before birth organ harvesting and after brain death transplant, the role of medical ethics becomes more important.[3,4]

There is no teaching program existing in most medical colleges in India, which is used to teach medical ethics to students. There is a lot of growing mistrust between the doctors and the rest of the community. This has led to lot of allegations and lawsuits, which is not favorable for the society as a whole. The teaching of medical ethics to medical students should be more elaborate keeping in view, the worsening of doctor-patient relationship in current scenario.[3,5,6]

MCI has finally acknowledged its growing need and in its amended competency-based curriculum, has come up on this and has incorporated teaching of attitude, ethics and communication in its latest amended curriculum.[7,8] The subject of medical ethics would be taught as a regular curriculum in Indian medical colleges.

Our students once trained in medical ethics especially in patient care will develop the acquired competency. Ethical competency and professional competency developed simultaneously will lead to doctors having a more humane approach to the society. Once implemented in our curriculum, we should be able to see changes within next in 5-10 years. The institutes who would introduce the teaching of medical ethics would stand out as a beacon of humanity in the ocean of suffering.

On our part, as a medical health care provider and a teacher, it becomes our duty to teach medical ethics with relevance to patient care. Since the first clinical exposure of our medical students to patients comes in 2nd professional MBBS (3rd semester), it becomes all the more important to start the teaching of medical ethics at this stage so that it becomes inculcated in their values from the day 1 itself and remains there for the rest of their lives.[3] This teaching of medical ethics can be supplemented by other topics/modules in later professional years.

This study aimed at developing one such module for teaching medical ethics in patient care to 2nd Prof students so that the students apply their knowledge of medical ethics (ethical practices) while dealing with the patients. The knowledge gained will help in better doctor-patient relationship and enhanced patient satisfaction, which would, in the long term, improve health care of the society.

AIM AND OBJECTIVES
Aim: To develop and introduce a module on "Medical Ethics in Patient Care" to 2nd Professional MBBS students and to know the perception of students and faculty regarding the teaching of the module to the students.

Objectives:
1. To develop a validated module for teaching medical ethics to 2nd year MBBS students.
2. To do pilot testing of the module for feasibility
3. To teach medical ethics to 2nd year medical students.
4. To evaluate their knowledge in medical ethics.
5. To know about the students' perspective about introduction of medical ethics in curriculum.
6. To know about the teachers' perspective about the effectiveness of the content.
7. Improved knowledge and awareness of medical ethics among 2nd year medical students.

Table 1: Outline of Module on "Medical Ethics in Patient Care" for 2nd Professional MBBS students

	Topic	Duration	TL method	Assessment Method
1.	Introduction, History & Principles of Bioethics	1 hour	Interactive lecture, PPT	Short answer Question, MCQs
2.	Moral development Moral Theories	1 hour	Case Based Learning, scenarios	SAQ, MCQs
3.	Autonomy, Informed consent, Privacy, Confidentiality	1 hour	Videos, Role play, Problem based Learning	OSCE, MCQs, SAQs
4.	Benefit & harm, beneficence, non maleficence	½ hour	Interactive lecture, Case based learning	SAQs,
5.	Equity, equality, justice	1/2 hour	Interactive lecture, Case based learning, Movie clip	Scenario based question SAQ
6.	Vulnerability and Protection	1 hour	PPT, Movie Clip	Scenario based question
7.	Environmental ethics, bio-safety	1 hour	Brainstorming, cinema-education	SAQs
8.	Human dignity & human rights	½ hour	Interactive lecture, Movie clip	SAQs, scenario based questions
9.	Respect for cultural diversity and pluralism	½ hour	Interactive lecture, PPT	Long answer questions
10.	Stigma and discrimination, Gender Disparity	1 hour	Case based learning, Videos, Movie clip	Scenario based SAQ
11.	Solidarity, cooperation, social responsibility and Health	1 hour	Interactive lecture, Movie clip	SAQs, MCQs
12.	Research ethics	1 hour	Case based learning	SAQs

PPT: Power-point presentation, MCQs: Multiple choice Questions, SAQs: Short answer Questions, OSCE: Objective Structured Clinical Examination.

MATERIALS & METHODS

The study was conducted in the Department of Pharmacology, Gian Sagar Medical College and Hospital, Punjab from the period of March 2017 to December, 2017 after IEC approval.

After Institutional Ethics Committee (IEC) approval, a core team of faculty members was formed who were directly involved in conducting the study. The core faculty members were sensitized to the need of developing a module for teaching medical ethics to 2nd Professional MBBS students regarding patient care. Based on WHO module on medical ethics[3,4], the topics to be covered in the module were finalized through Focus Group Discussions (FGDs) with the participating faculty from various clinical and pre/para-clinical departments. After correcting the deficiencies and the topics finalized, a module for teaching "Medical ethics in Patient Care" was developed. The content validation was done by external experts and the module was finalized after incorporating the necessary changes. The broad outline of the module is given in Table 1.

Student information sheets and informed consent forms were prepared. Feedback questionnaires for students (pre and post-test) and faculty were designed and validated. Pre and post-test questionnaire were developed and validated to assess the improvement in the knowledge of students. The questionnaire included 20 questions {Multiple Choice Questions (MCQs) and Short Answer Questions (SAQs)} covering various aspects of medical ethics in patient care. The questions were both close ended and open ended, based on real life scenarios.

A feedback questionnaire, based on 5-point-Likert scale, was also developed to know the students' perception regarding the teaching of medical ethics and validated by peer review. The pre-validated feedback was obtained from the 15 students during the pilot run of the module. A feedback questionnaire based on 5-point-Likert scale, about the effectiveness of the content for the teaching of medical ethics and validated by peer review. The pre-validated feedback was obtained from all of the 8 participating faculty during the pilot run of the module.

To determine the feasibility of the module, a pilot run of the module was conducted on 15 students of 2nd Professional MBBS (4th Semester). Consent was taken from the participants willing to participate in the study. A pre-test questionnaire was administered at the start of the sessions. The sessions (5 sessions each of 2 hours) were delivered by the core faculty members. At the end of the workshop, a post-test was conducted to assess improvement in knowledge. A pre-validated feedback questionnaire for satisfaction was obtained from the students and for effectiveness of the content from the faculty. The data collected was analyzed. Analysis was done using paired t-test in Microsoft Excel 2015.

RESULTS

After 3 weeks of intense discussions, Focused Group Discussions (FGDs) between the various faculty members of the institute, contents of the module were prepared and validated by the external faculty, from different departments outside the institute, from medical colleges all over North India. The module was finalized as "Medical Ethics in Patient care" after incorporating the necessary changes. A 2-day workshop was held with 15 student volunteers of 2nd Professional MBBS for pilot run and oral consent taken. A total of 15 students participated in the 2-day workshop. In the comparison of pre and post-test scores (maximum score: 40), there was an overall improvement in test scores (from 10.47 to 25.47) which was statistically significant as shown in Table 2.

Table 2: Overall improvement in scores

Test	Test scores (Max score: 40)
(Mean ± SD) of Pre-test scores	10.47 ± 2.03
(Mean ± SD) of Post-test scores	25.47 ± 4.67
Percentage improvement in scores	143%
p-value (paired t-test)	p<0.001

The workshop was divided into 5 sessions of 2 hours each. The mean test scores (pre & post workshop) of each session were also analyzed. The improvement in knowledge of various aspects of medical ethics was also calculated. There was a statistically significant improvement in knowledge in all sessions (Fig 1).

The students gave their feedback on the various aspects of the module. (Figure 2)

Figure 1: Comparison of Pre and Post-test scores in various sessions of the module
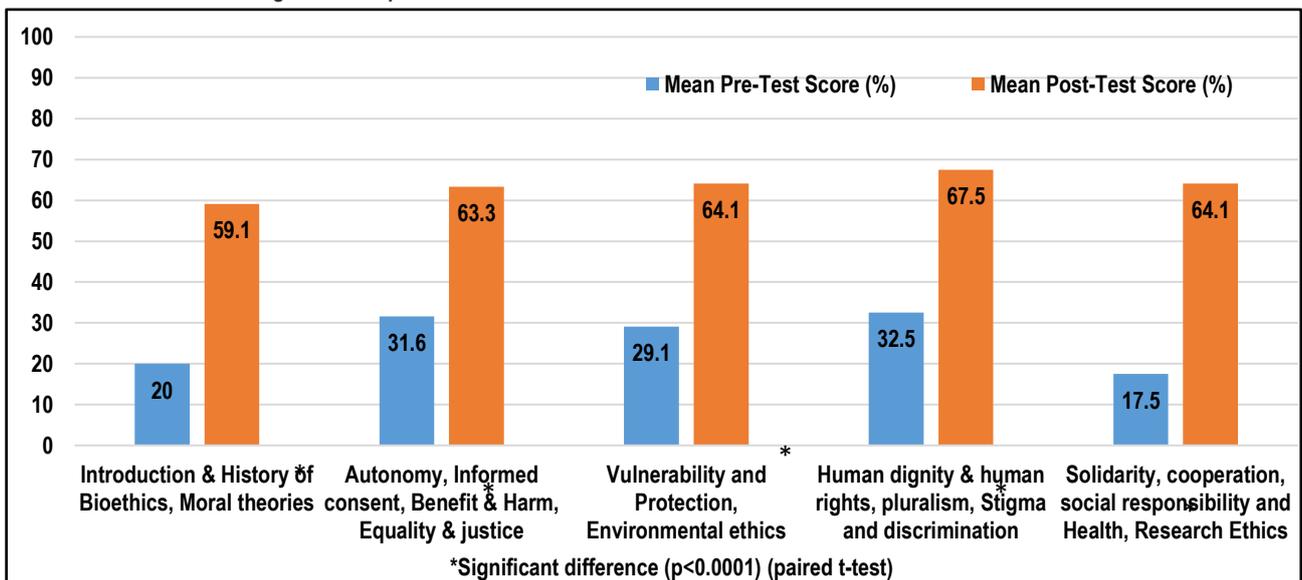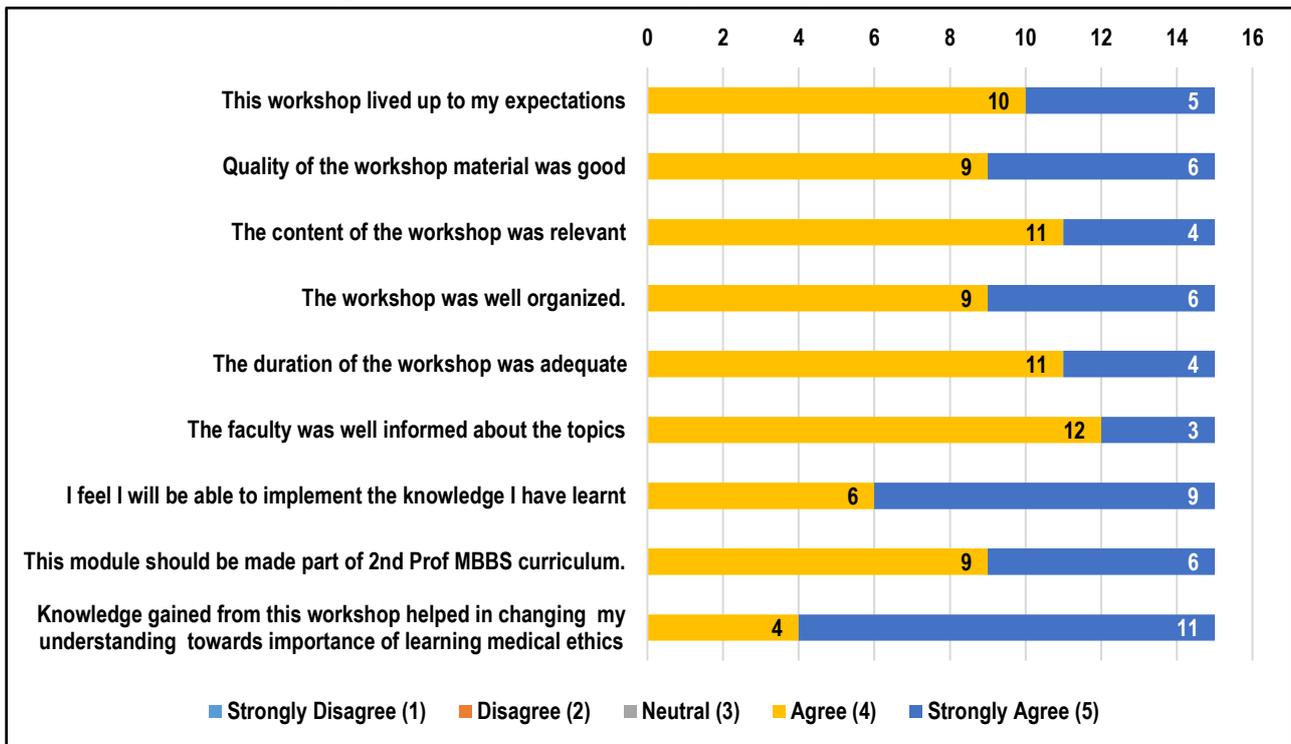

*Significant difference (p<0.0001) (paired t-test)

Figure 2: Results of students' feedback, based on 5-point Likert scale

Perception of the students about the workshop

The participating students' rated the workshop from very good to very poor performance (Fig 3). The perception about the workshop was also obtained using open-ended questions. The factors that facilitated learning were the interactive sessions, well informed faculty, well organized sessions. The students felt that there was less time for some sessions and more time could be given to issues related to human rights and discrimination. One student felt that the workshop could be done in more detail over a period of 3 days. Learning through movie clips was the best thing in the workshop. More case scenarios could be discussed. The

students were enthusiastic about implementing the changes in their dealing with patients. Some students (5) felt that it should be done as a regular in undergraduate curriculum, starting from 1st Prof itself. The participating faculty gave their feedback on the effectiveness of the module. (Figure 4)

According to the faculty, the support from the higher authorities/dean were some of the facilitating factors in the development of the module. Though there was a conscious extra effort required to develop it and to run it as a pilot study, the zeal and enthusiasm to learn and active participation shown by the students during the workshop made it all worth it.

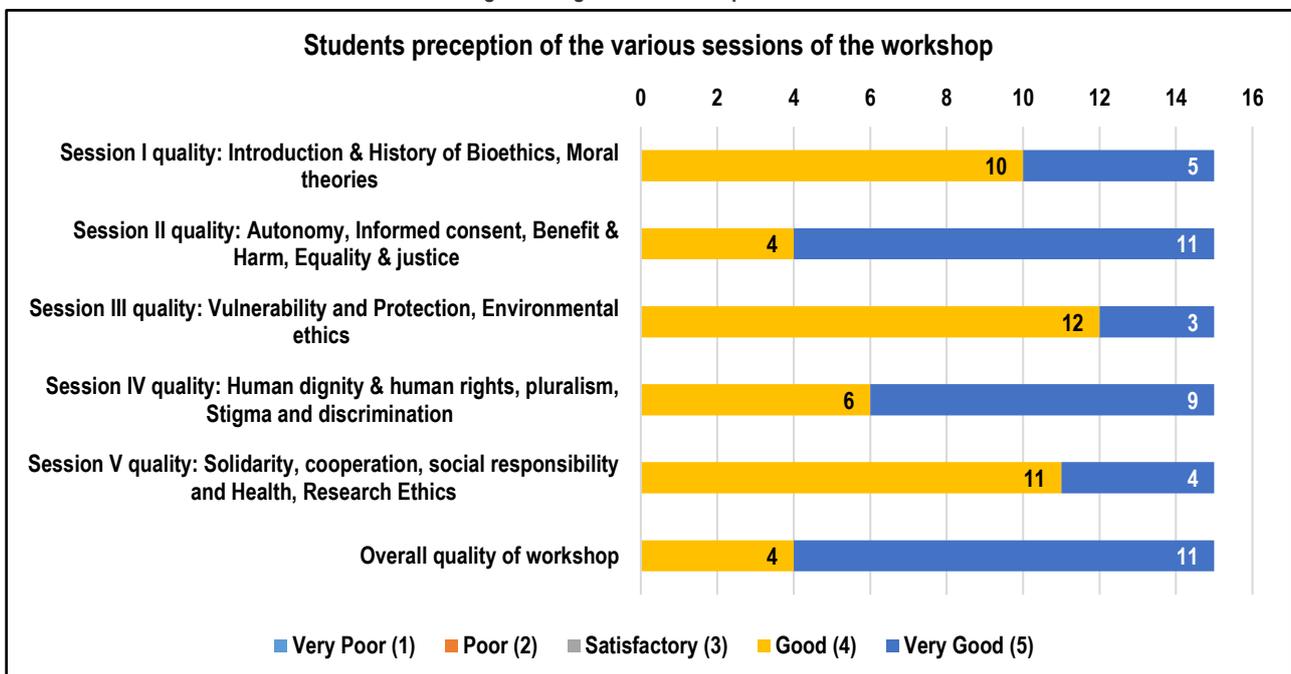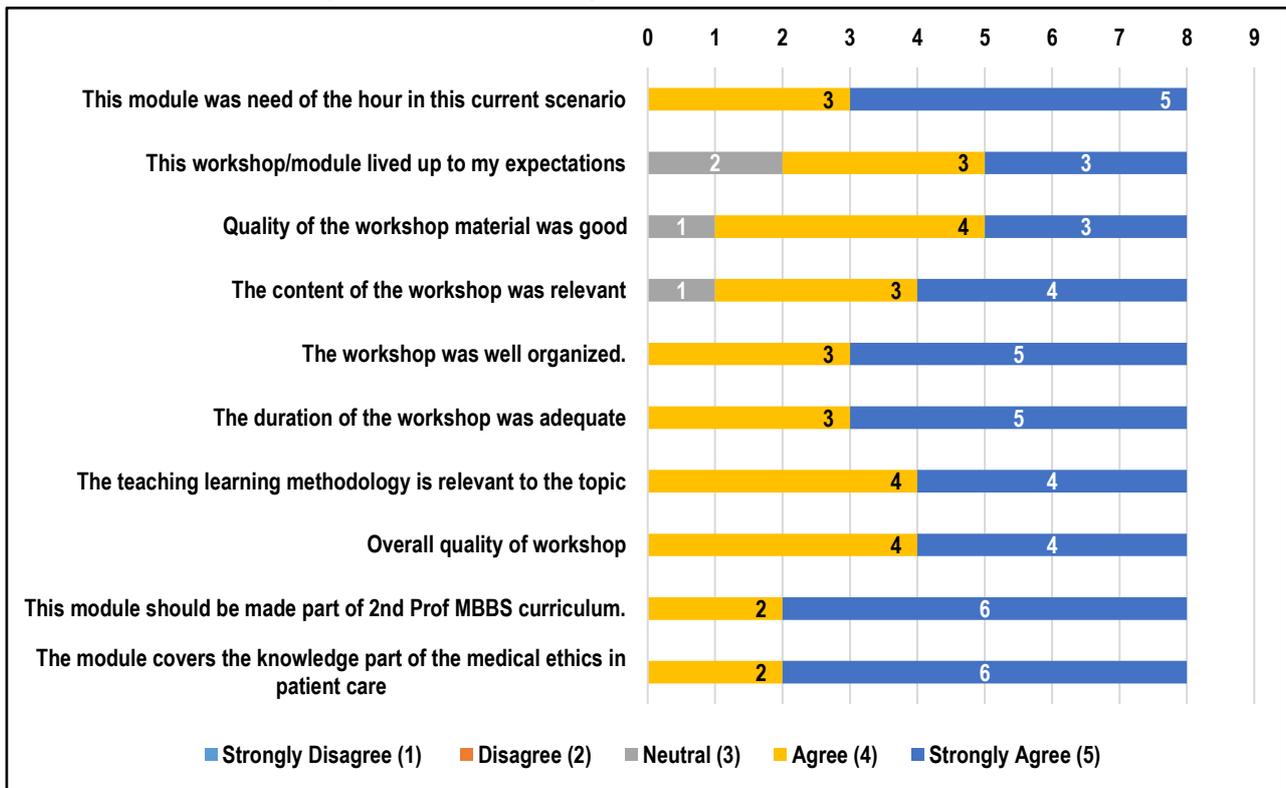**Fig 3: Rating of the workshop sessions**

Figure 4: Results of the Faculty feedback, based on a 5-point Likert scale

DISCUSSION

Considering great need for the topic of medical ethics and its importance shown in Vision 2015 document and CBME based curriculum by Medical Council of India (MCI), many modules on medical ethics have come up recently for the interns, senior residents and post-graduate students. The introduction of the topic of medical ethics at the undergraduate level is undermined till now.[9-11]

The module was developed keeping in view the current level of the mistrust between the doctors and the patients, worsening of the doctor patient relationship, which ultimately is detrimental for the general well-being of the society.

In this study, a standardized module for teaching medical ethics in patient care was developed and a pilot run conducted to know its feasibility. The results have shown a significant change not only in the knowledge level of the students but also in their attitude and their enthusiasm in wanting to bring about a change in their behavior towards patients regarding their rights and regarding their duties as a doctor in later years. This module has given evidence on the increase in knowledge of students following the workshop.

The teaching of medical ethics is a part of routine curriculum in many other countries and the programs are running successfully since past many years.[4,5] Dundee University medical school teaches medical ethics as a two-week program in 2nd and 3rd professional students, with favorable perception among students.[6] Many studies strongly recommend that the goals of medical ethics education as desired by professional organizations and society are not difficult to attain and that achievement of these aims is valued by students and faculty.[12-15]

Positive feedback from the students and the faculty in this study supports earlier studies and that both the students and the faculty are aware of its importance and its absence in our regular curriculum.[16-19] Currently, no module, based on Indian medical curriculum, on teaching medical ethics to 2nd Professional students exists in India,. This module is aimed for the 2nd Prof students, keeping in mind their knowledge level, cognitive domain and clinical acumen. Teaching of this module on medical ethics in patient care aimed at improving their knowledge so that they can apply while during their clinical postings and continue practicing it life-long.

There were certain limitations regarding this study. This teaching module was for 2nd professional MBBS students. This could be well tailored for the 1st Prof students also. This module is based on more of the knowledge part. It could include teaching in some psychomotor domain too. There could be involvement of external faculty for the workshop. But due to time restraints and the financial issues, that could not happen.

CONCLUSIONS

A validated module on teaching students on medical ethics in patient care was developed and a pilot run conducted for its feasibility. There was improved knowledge and awareness of students on medical ethics. There was significant improvement in test scores (10.47 to 25.47). The students felt the workshop was very relevant and they would implement the knowledge gained in their clinical postings and clinics. The confidence of students in dealing with ethical dilemmas was improved and the teaching faculty gave supporting review for the teaching of medical ethics to our undergraduates.

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