

Original Article

Teaching clinical ethics to intern doctors by integrated seminar and online discussions

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ABSTRACT

Objectives: We report our experience of an educational project conducted with the objectives of inculcating the knowledge and encouraging the application of the principles of clinical ethics among intern doctors.

Materials and Methods: An interdepartmental, integrated, interactive seminar was conducted by the departments of psychiatry, pharmacology, surgery, and medicine for various aspects of clinical ethics. A pre-post 20-item test of multiple-choice questions (MCQs) was conducted with the seminar. It was followed by 45 days of online discussion on clinical ethics among the participants of the seminar. Content analysis of the online discussion was done. Feedback was taken after the seminar and online discussion.

Results: Fifty intern doctors participated in the seminar and 34 in the online discussion. The MCQs' score significantly increased from 10.7 to 16.8 out of 20. There were 35 posts and 66 comments about clinical ethics made on the online forum. The feedback revealed that the interns wanted more departments to be involved in the seminar and practical knowledge was gained from the online discussion. It also suggested that this combination of seminar followed by online discussion encouraged them to apply the principles in their clinical rotations.

Conclusion: Integrated teaching and online discussion were effective in sensitizing the intern doctors, enhancing their knowledge, and encouraging the application of the principles of clinical ethics.

Keywords: Clinical ethics, Integrated teaching, Online discussion, Social media, Facebook

INTRODUCTION

A new, competency-based curriculum for undergraduate medical education has been rolled out in 2019.^[1] An integral part of this curriculum is the Attitude, Ethics, and Communication module.^[2] It provides a framework for teaching the basic principles of ethics to medical students, in a longitudinal manner, across all the phases of the curriculum and by all the departments. The components include foundations of communication, principles of bioethics, the doctor-patient relationship, medicolegal aspects, the doctor-industry relationship, dealing with death, and medical negligence. The main teaching-learning methods suggested include case-based discussions, student narratives, and reflections. Self-directed learning and formative assessment have been emphasized.

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Besides these, several methods to teach (interactive lectures, case vignettes, reflective exercises, feedback, portfolios, role models, and art-based interventions) and assess (multiple-choice questions [MCQs], reflective/narrative portfolios, mini-clinical evaluation exercise, professionalism-mini evaluation exercise, objective structured clinical examination, and multisource feedback) ethics and professionalism in the Indian context have been suggested.^[3]

It is important that the students not only learn these principles but are also sensitized in a way that they start applying these principles in practice. To achieve this, it is important to connect with them in an ongoing manner, encouraging them to reflect on the principles learned as they go on with their clinical work and discuss issues with their peers and teachers such that the learning is reinforced and embedded in practice.

As internship is the interface between learning and independent clinical practice, we thought of conducting an integrated seminar on clinical ethics for them, involving the departments of medicine, surgery, pharmacology, and psychiatry. We would first need to sensitize them as these interns had no prior experience of any formal teaching-learning in ethics in the college. To provide a platform for further discussion on the application of principles and the reinforcement of learning, we thought of using a social media platform. E-learning has been widely used in medical education in India. Both teachers and students favor this mode of learning in addition to the traditional ways. The benefits of e-learning are much more than the perceived discomfort.^[4] Closed Facebook groups have been used in subjects such as anatomy in the 1st year of MBBS^[5] and also for earning credits in continuing medical education.^[6] We also chose "Facebook group" as a social media platform and planned to keep it active for a period of 45 days after the seminar where the intern doctors would discuss issues related to clinical ethics, learned in the seminar, as they saw them in their clinical rotations.

With this background and purpose, the educational intervention (Integrated Seminar and Online Discussion) was planned with the objectives to sensitize the intern doctors to the principles of clinical ethics, increase the knowledge of the intern doctors regarding clinical ethics, and encourage the application of the principles of clinical ethics.

MATERIALS AND METHODS

The study was carried out after taking permission from the Institutional Ethics Committee at B.J. Medical College and Civil Hospital, Ahmedabad within a period of 6 months between March and August 2015. All intern doctors posted in surgery, medicine, and psychiatry department during the period of study were enrolled, after taking their written informed consent (sample size: 50 intern doctors).

As the first step, a single day (6 h) interdepartmental, interactive, integrated seminar on clinical ethics was conducted for the intern doctors at the medical college. Topics that were included were ethics in a doctor-patient relationship (psychiatry department), prescription ethics and ethics in dealing with pharmaceutical promotions (pharmacology department), informed consent in surgical practice (surgery department), and ethics of end-of life care (medicine department). The content was delivered in an interactive lecture setting using case scenarios and brainstorming. Some of the content for the first topic was drawn from a study by Shah *et al.*^[7] and the resource material for the same included the MCI's code of conduct document,^[8] the WHO Facilitators' guide for teaching medical ethics to undergraduate students in Southeast Asia region^[9] and the Medical Ethics Manual by the World Medical Association.^[10]

As the next step, an online group discussion was planned. All the participants of the workshop were invited to participate in an online group (Facebook group) to continue discussion on clinical ethics. Faculty members and interested resident doctors were also a part of the same group. As the intern doctors moved on with their clinical postings, they identified ethical issues observed by them and posted on the group. Feedback was provided and discussion happened with the other participants and faculty members. Whenever there was a lack of activity in the group, prompts and reminders were given by the faculty members. It was made mandatory to make at least three meaningful posts, before they could receive the certificate of participation. Furthermore, small prizes as tokens of appreciation were declared, for the best online participation. This was to motivate the intern doctors to participate actively in the online discussion.

For the evaluation of the project, a pre-post MCQ test was administered at the time of the workshop. It was a 20-item test with four MCQs each on general principles of ethics, code of conduct, and doctor-patient relationship, three each on prescription ethics and ethics of end-of-life care, and two on informed consent. Fifteen MCQs were knowledge based and five were scenario based involving application of knowledge. A feedback questionnaire was filled up by the intern doctors after the seminar. It consisted of eight statements [Table 1] to be rated on a 5-point Likert scale ranging from strongly disagree to strongly agree, and there was a section for other comments. The content of all the online interactions was analyzed in terms of what kind of posts were shared, how could they be categorized based on the underlying ethical principle discussed, and how did the other participants respond to it, thereby enhancing group learning. Another feedback questionnaire was filled up by the intern doctors after the online interactions. It consisted of 10 statements [Table 2] to be rated on a 5-point Likert scale ranging from strongly disagree to strongly agree, and

there was a section for other comments. The MCQs and the feedback questionnaires were peer-reviewed by a group of colleagues pursuing the advance course in medical education along with the first author and necessary changes were made before administering to the intern doctors. The data were analyzed using Microsoft Excel. The significance of the difference in MCQ scores before and after the intervention was tested by applying the paired samples *t*-test. The data

Table 1: Statements in the feedback questionnaire after the seminar.

S. No.	Feedback statement
1	The topic of clinical ethics is relevant to us
2	The content was delivered in a clear and appropriate manner
3	I am satisfied with this teaching-learning activity on the topic
4	My knowledge on the topic has increased as a result of this activity
5	My attitude toward ethical issues in clinical practice has improved after the activity
6	This activity is likely to influence my future decisions and practice in handling ethical issues in a clinical encounter
7	I am satisfied with the MCQ-based assessment done on the topic
8	I would like to attend more such sessions on clinical ethics.

MCQ: Multiple-choice question

Table 2: Statements in the feedback questionnaire after online discussion.

S. No.	Feedback statement
1	It was interesting to participate in the online discussions on clinical ethics
2	The online discussion has resulted in an increase in our knowledge on clinical ethics
3	It was difficult to find time to write about issues related to clinical ethics
4	I was comfortable in sharing my thoughts and ideas in an online forum
5	With the help of online discussions, I was able to relate the principles of ethics to clinical practice
6	Such online forum for discussions and debates must remain an ongoing activity
7	This activity is likely to influence my future practice in handling ethical issues in a clinical encounter
8	The online discussions have helped me develop an empathic attitude toward issues related to clinical ethics
9	After the online discussions, I would be more comfortable in discussing ethical issues with my peers, seniors, and faculty
10	The online discussions prompted me to read more in the field of clinical ethics.

obtained from the feedback questionnaires were analyzed using descriptive statistics. Qualitative analysis of the online interactions was done to find out the different categories of posts and responses.

RESULTS

Fifty intern doctors participated in the seminar and 34 subsequently enrolled themselves for the online discussion. The results after the seminar and after the online discussion are as follows:

Pre-post MCQ test scores

The mean MCQ score before the seminar was 10.73 with a standard deviation of 3.10 which increased to 16.84 with a standard deviation of 2.93. This increase was found to be statistically significant by the paired samples *t*-test with $t = 13.98$ and $P = 0.0001$. This result is represented in [Figure 1].

Feedback given by the intern doctors after the seminar

The results of the feedback questionnaire are depicted in [Figure 2]. In addition, some comments were written by the

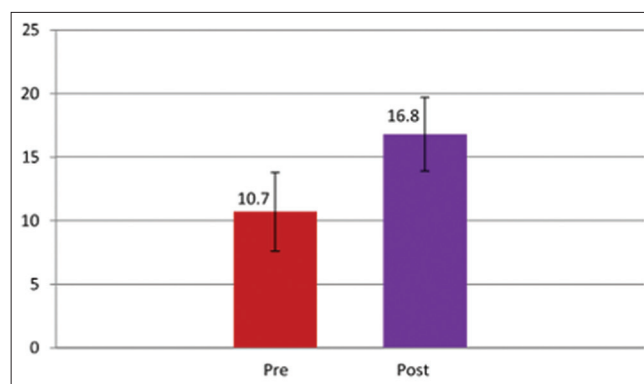


Figure 1: Average multiple-choice question scores before and after the intervention ($n=50$).

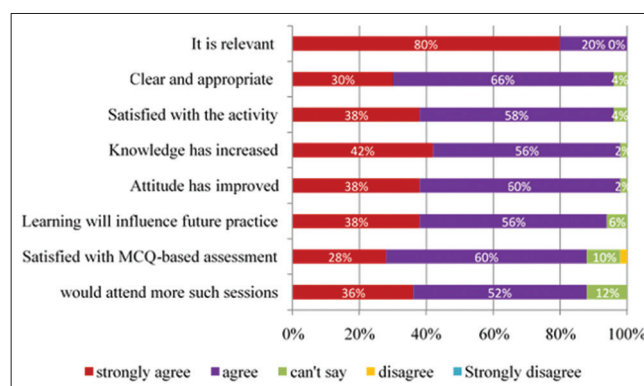


Figure 2: Feedback rating after the seminar by intern doctors ($n=50$).

intern doctors, suggesting appreciation of the process (4) and content of the seminar (2), how it impacted them (2), and suggestions for future (3). The corresponding verbatims, in that order, are as follows:

1. "There was a 2-way interaction and we were allowed to express"
2. "There was active participation from one and all present, not just a monotonous lecture"
3. "All the sessions were interesting and worthwhile"
4. "Active learning process and method of content delivery is what I liked the most"
5. "All topics are interesting but I liked pharmaceutical ethics and informed consent more"
6. "Thank you for taking up this initiative, badly needed, highly relevant, very well managed"
7. "It was an eye opener in clinical ethics"
8. "This learning will influence our future clinical practice"
9. "More branches should be involved, to learn about different cases"
10. "Very good initiative, must be started from 1st MBBS, very nice and meaningful interaction"
11. "Should be done every year for interns."

Results of the online discussion

In all 34 intern doctors, 7 faculty members and 11 resident doctors (total 52 members) participated in the online Facebook group for discussion on clinical ethics, for a period of 45 days after the seminar.

The results related to the online discussion were as follows:

1. The total number of posts and comments on the online forum by intern doctors, resident doctors, and faculty members are shown in [Table 3].
2. The various types of posts made by the participants in the Facebook group are represented in [Table 4].
3. All the posts and comments on the online discussion forum were analyzed qualitatively and could be divided in seven broad categories as depicted in [Table 5]:

The discussion under these categories can be summarized as follows:

Doctor-patient relationship

The intern doctors raised issues related to the general principles and code of conduct by the doctors, what is the extent of responsibility of the doctors, and why they resorted to unethical practice. Issues related to poor communication between doctors and patients were also touched upon and instances where these led to misunderstandings and problems were shared. The woes of a doctor and problems faced by doctors when the doctor-patient relationship failed were also discussed.

Table 3: Number of posts and comments by various participants, on the online forum (n=52).

Participants	Posts	Comments
Intern doctor	28	36
Resident doctor	1	1
Faculty member	6	29
Total	35	66

Table 4: The type of posts shared online (n=35).

Type of post	Number
Links to articles/website/video	14 (12,1,1)
Knowledge based	7
Image/cartoon/newspaper clip	5 (3,1,1)
Real-life incidents	4
Raising a query/concern	4
Movie scene with an ethical issue	1

Table 5: Category wise post-distribution (n=35).

Category	Number
Doctor-patient relationship	9
Breaking bad news	6
System-related ethical issue	6
End of life care/euthanasia	5
Medical negligence	5
Prescription ethics	2
Informed consent/advance directive	2

Breaking bad news

Articles and knowledge sharing posts related to breaking bad news were shared and the SPIKES protocol^[11] for breaking bad news was discussed in detail.

System related to ethical issues

While discussing about clinical ethics, in an attempt to find out the root cause of unethical practice, certain system-related ethical issues were discussed on the online forum. These were related to the corruption related to admission in medical colleges, transparency in drug trials, medication errors, and a movement to stop unwanted investigations.

End-of-life care/Euthanasia

Various articles related to end-of-life palliative care were shared. Aruna Shanbaug's death was discussed as an example as it prompted a discussion on euthanasia.

Medical negligence

Medical negligence was discussed in the light of a few real-life incidents. What the exact roles and responsibilities of a

doctor on duty were and what amounted to negligence was discussed. What care should be taken to prevent negligence was further highlighted.

Prescription ethics

The issues related to prescription ethics were discussed by sharing the details of a website and a cartoon that depicted that how a doctor was vulnerable to indulging in unethical practices due to pharmaceutical promotions.

Informed consent/advanced directive

Informed consent was discussed and emphasized in detail. The discussion of advance directive happened in the context of a Bollywood movie named “Piku” in which an old father tells his daughter that if he were to fall terminally ill in the future, he should not be put in an ICU with all sorts of tubes in his body, but allowed to die in peace at home.

Feedback given by the intern doctors after the online discussion

The results of the feedback questionnaire are depicted in [Figure 3]. In addition, some comments were written by the intern doctors, suggesting how it helped them learn (3), motivated them (1), and their suggestions for the future (2). The corresponding verbatims, in that order, are as follows:

1. “Many practical aspects were discussed which ‘bookish knowledge could never teach us”
2. “Teachers and their years of experience were like guiding light”
3. “It was a platform of like-minded people where practical experiences of peers became our learning lessons”
4. “A ‘good idea’ needs proper implementation; hence now, together we need to work on implementation”
5. “There should be an option of anonymous posting also”
6. “We should start a blog in which everyone should participate.”

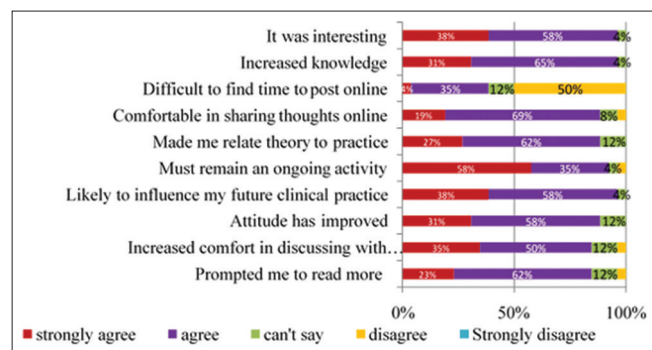


Figure 3: Feedback rating after the online discussion by 26 intern doctors.

Eight intern doctors who did not participate in the online discussion could be contacted and they mentioned their reasons as follows:

Lack of time: 4; lack of resource: 4.

DISCUSSION

The intervention in teaching clinical ethics including the integrated seminar and online discussion revealed positive results in terms of increase in knowledge and application of the principles of clinical ethics. Even the pre-intervention, average MCQ score was around 50% which means that the interns did have some basic knowledge on the principles of ethics despite having had no prior formal teaching-learning experience.

Diverse issues related to clinical ethics were discussed in the online forum and it was a unique platform where faculty members, resident doctors, and intern doctors together participated in a relevant and fruitful discussion pertaining to clinical ethics, in the context of what was learned in the seminar and what was witnessed and experienced in the subsequent clinical rotations.

The feedback from the intern doctors revealed that they were satisfied with the interactive teaching and found the group discussion based on case scenarios very interesting. They were also satisfied with the discussion on the online platform. They started thinking on and applying the principles of ethics to situations in their clinical rotations and discussing those on the group. They also shared posts related to movie scenes, real-life cases, etc., which had ethical issues. Thus, this post-seminar online group discussion ensured that the principles learned are not only kept in mind but also actively applied.

This way of teaching ethics thus incorporated elements of integration, interactivity through case-based discussion, reflection, and self-directed learning, which are all recommended methods for teaching ethics and professionalism to medical students in the new CBME curriculum.^[2]

A study conducted by Premkumar *et al.* at CMC, Vellore, revealed that the self-directed learning readiness of students declined over the years of MBBS and the authors suggested that the curriculum should include different teaching-learning methods that would encourage self-directed learning.^[12] The Facebook group used in this study provided such an opportunity to the intern doctors. It was also a way to formatively assess the learning of the students, as we could monitor the direction in which the learning proceeded, and make corrections if required.

Various other innovative methods have been suggested and tried to teach ethics and professionalism to Indian undergraduate medical students. A scoping review including

29 articles done by Souza and Vaswani found that case-based discussions were the most common method and assessment methods included reflections, portfolio, and simulated patient interactions.^[13] Other methods used in different subjects to address specific ethical aspects include learning to respect the cadaver while learning anatomy through interactive lectures, individual creative assignments, and poster making competition,^[14] and integrating various ethical aspects into the physiology curriculum that would help the student relate theory to clinical practice.^[15] In addition, role-plays have been used to teach the affective component of consent and euthanasia.^[16]

Pandya *et al.*^[17] have reported their experience of teaching bioethics using personal experience narratives by the students for further discussion on the ethical aspects taught through interactive lectures. This is similar to our study in terms of using a method in addition to the interactive lectures, to actively engage the students and make them reflect on ethical issues in their clinical postings. Mahajan *et al.* have suggested an entire module for intern doctors, including methods such as interactive lectures, case-based learning, role-plays, and cinemeducation.^[18]

It has been suggested that teaching of clinical ethics should happen throughout the medical curriculum, with reinforcements at various intervals and during specialty training^[19] and the focus should be on helping to build skills in identifying and resolving ethical issues.^[20]

Thus, with the findings of our study and corresponding review of the relevant literature, we recommend that while ethics education in Indian Medical Colleges has now become mandatory, we should not limit ourselves to interactive lectures but also incorporate some of the innovative teaching-learning methods to actively engage the students. It is important to ensure that the principles are not only learned but also reflected on and applied in clinical practice. For this, some platform for ongoing discussions must be created, which, in our case, was an online discussion on Facebook group connecting interns, resident doctors, and faculty members.

Limitations of the study are that the participants were not followed up over long term to evaluate how the learning actually helped them in practice. Furthermore, only four departments could come together to implement the workshop due to time and resource constraints.

CONCLUSION

We conclude that integrated seminar followed by online discussion on a facebook group was an interesting and successful method of teaching the principles of clinical ethics to intern doctors and encouraging its application.

Declaration of patient consent

Institutional Review Board (IRB) permission obtained for the study.

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Nil.

Conflicts of interest

There are no conflicts of interest.

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