

Original Research Paper

Introduction to medical ethics in 1st year MBBS teaching of Anatomy

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ABSTRACT

Violence against Indian doctors is a common phenomenon. Every day we hear news that doctors are beaten up by the attendants of patients. In most of these cases the doctor is usually involved at junior level (Medical students, Interns, Resident and Senior Resident). One of the reasons for this maltreatment could be ignorance of medical ethics which has been never taught to them at undergraduate level. The study was an attempt to introduce and evaluate the medical ethics to first year MBBS students in anatomy. This study aimed to introduce and evaluate medical ethics module in 1st year MBBS students. To make them aware about ethical issue in relations to cadavers i.e. respect for human body after life. 50 1st year MBBS students were enrolled for study. A pretest was taken before the session of medical ethics. These students were introduced to concept of medical ethics in 3 hour session which included lecture, videos on showing respect to the cadavers and role play. At the end of session cadaveric oath was administered. After the session, post test was conducted and a feedback Performa on a 3 point likert scale was given to know students perspective regarding the session. Participants showed significant improvement in post session score. On statistical analysis the p value<.0001 of each item analysis shows significant improvement. There was lack of awareness about medical ethics in 1st year MBBS students. A well organized session can improve knowledge and attitude towards education.

Key words: Medical ethics, medical students, cadaver, anatomy.

INTRODUCTION

Medical education had ignored medical and bioethics for a long time. The medical professional is confronted with ethical issues, whether it is in medical practice or human experimentation. The advances in medical science and technologies have left the doctor perplexed [1]. The Edinburgh Declaration of Medical Education approved in 1988 requires that a future physician be trained as an attentive listener, a sensitive communicator, a careful observer and an effective clinician [2]. The practice of medicine is intrinsically an ethical enterprise because patients are vulnerable and suffering. Medical treatments are not merely technical; they often invade patients' bodies and engage their consciences [3]. Pellegrino argues that the ethical decisions are an integral and essential part of being a good physician. Better the students' prior ethical education the better they can appreciate nuances and complexities of medical ethical choices. The less that prior education, the more the student needs instruction in ethics in the medical schools [4]. From the developing world, countries such as India, Sri Lanka, Pakistan and Saudi Arabia have been slow to respond to this universal need [5-7]. Within the health sector, questions are being asked about the possible threats to the accepted principles of equity and social justice in the delivery of care. Violence against doctors is common phenomena, every day we hear news that doctors are beaten up by the

attendant of patient. In most of these cases doctor are usually involved at junior level (Medical students, Interns, Resident and Senior Resident). One of the reasons for this maltreatment could be ignorance of medical ethics which has been never taught to them at undergraduate level. Students have started photography and videotaping cadavers and posting the images on Face book and You Tube. There is a need to 'humanizing' the cadaver with respect as first patient or as a first teacher.

Cadaveric dissection has been the paradigm of anatomy teaching since the Renaissance, and defining experience of medical teaching since 16th and 17th centuries [8,9]. In addition, the practice of cadaveric dissection helps students to grasp the 3 dimension anatomy and concept of innumerable variations [10]. The main ethical concern of cadaver dissection lies in respect to human life. Any disrespect for the cadaver will be a disgraceful act as a human being [11]. Medical ethics should be a necessary component of medical curriculum. It should be taught from day one of medical college because mainstreaming and formalising ethics education in the medical school curriculum will increase knowledge and confidence and create positive attitude towards ethics education

METHODOLOGY

To study awareness and preliminary knowledge of 1st year MBBS students about medical ethics, 50 students out of 100 showed willingness to be a part of the study. MCQ questionnaire was designed based on history, current guidelines, principals and professionalism. The questionnaire was circulated to participant students after taking consent from them. The permission for the same was taken from the Institutional Ethics Committee (DMC/R&D/2017/620). Medical ethics modules for teaching were prepared with inputs from faculty of department of anatomy. A lot of brainstorming and peer validation was done for appropriate teaching learning method to be adopted.

After validation of modules and post teaching session feedback Performa, pre test MCQ questionnaire was given to solve. Subsequently these students were introduced to concept of medical ethics in 3 hourr session which included lecture on medical ethics, videos on showing respect to the cadavers and role play. At the end of session cadaveric oath was administrated. After the session, post test on MCQ questionnaire was conducted and a feedback Performa on a 3 point likert scale was given to know students perspective regarding the session.

Responses were tabulated, summarized and evaluated. Opinions and suggestions in response to open- ended questions were documented. The data was compiled in a Microsoft excel sheet. The responses were calculated as percentage and analyzed student wise. The analysis was classified into various categories - 0-25% is Zero, 26% -50% is Average; 51-75% is good and 76-100% is excellent [12]. To compare the pre test and post test scores, paired t test was used. Significance level of p value is <0.05 and extremely significant p value is <.0001. These values were calculated and recorded. Pre and Post scores were compared and tabulated.

RESULTS

50 first year MBBS students participated in pre and post test session. In question wise analysis, mean pre to post scores improved significantly p value <.0001 (Table 1).

Quantitative Analysis

Item wise analysis

a. History of medical ethics

There were two questions testing the awareness about the history of medical ethics. 24% students showed improvement in score from zero to excellent and 44% improved from average to excellent (Table 2). The improvement showed extremely significant statistical difference (Table 1).

b. Current guidelines of medical ethics

Three questions tested the knowledge about current guidelines of medical ethics. 24% students showed improvement from zero to excellent and 30% students' shows improvement in their scores from average to excellent (Table 2). The improvement found to be statically significant (Table 1).

c. Principle of bioethics

The four principle of bioethics was discussed in detail during the session. Three questions were given on this topic. 22% students improved their score from zero to excellent. 18% showed improvement from average to excellent (Table2). The mean pre test and post test score analysis pertaining to these items recorded and it shows extremely significant improvement (Table 1)

d. Professionalism

There were two items testing the facts about medical professionalism. 34% students were improved in their scores from zero to excellent and 26% from average to excellent (Table 2). Mean scores of pre and post test showed extremely significant value (Table 1).

Table 1: Mean Pre and Post score analysis of medical ethics components

Parameters		Mean	SD	Paired t- value	p-value
History of medical ethics (2 Questions)	Pre test	0.54	0.542	12.02	0.0001
	Post test	1.64	0.598		
Current Guidelines (3 Questions)	Pre test	0.68	0.653	12.60	0.0001
	Post test	2.48	0.707		
Principle of bioethics (3 Questions)	Pre test	0.44	0.501	15.14	0.0001
	Post test	2.26	0.694		
Professionalism (2 Questions)	Pre test	0.56	0.577	7.57	0.0001
	Post test	1.54	0.646		

p < 0.0001 extremely significant

Table 2, Analysis of graded improvement in pre and post scores of various components of medical ethics (n-50)

Pre Test Grade	Post Test Grade	History of medical ethics (Item 1,2) No of students	Current Guidelines (Item3,4,5) No of students	Principal of bioethics (Item6,7,8) No of Students	Professionalism (Item 9,10) No of students
Zero	Zero	2 (4%)	-	-	2(4%)
	Average	10 (20%)	-	4 (8%)	5 (10%)
	Good	-	9 (18%)	13 (26%)	-
	Excellent	12 (24%)	12 (24%)	11 (22%)	17 (34%)
Average	Zero	1(2%)	1 (2%)	-	2 (4%)
	Average	2(4%)	3 (6%)	3 (6%)	9 (18%)
	Good	-	5 (10%)	10 (20%)	-
	Excellent	22 (44%)	15 (30%)	9 (18%)	13 (26%)
Good	Good	-	3 (6%)	-	-
	Excellent	-	2 (04%)	-	-
Excellent	Excellent	1 (2%)	-	-	1 (2%)

Quantitative Analysis

Table3: The feedback from students participant in the study was collected in paper format. The response to qualitative questionnaire were tabulated (n=50)

S. No	Questionnaire Item	Not Likely	May be	Definitely
1.	What is the likelihood that you might consult the ethical literature in future?	10%	4%	86%
2.	Do you think medical ethics should be part of 1 st year medical curriculum	4%	16%	80%
3.	Do you think knowledge of medical ethics enhances your ability to make moral decision	14%	10%	76%
4.	Does this program enhance the ability to identify ethical issue	8%	10%	82%
5.	Do you think with your knowledge in medical ethics, in future you will be able to treat patients more emphatically	12%	20%	68%
6.	Do you think in future when you do research; you will keep in mind ethical issue related to it	4%	12%	84%
7.	Do you think knowledge of ethics helps in doctor patient relationship	8%	10%	82%
8.	Do you think after the session respect towards cadaver increased	4%	4%	92%
9.	Do you there is any need of Institutional ethics committee in your college	10%	20%	70%
10.	Do you think proper disposal of biomedical waste is need of the hour	6%	12%	82%
11.	Do you think session on medical ethics using video, lecture, group discussion and role play should be part of first year curriculum	3%	5%	92%

Feedback in Likert scale format was encouraging as the participant was impressed with the session and expressed their willingness to imbibe medical ethics in their life. Respect towards cadaver is increased after the session.

- 92% students think the session like this should be part of first year curriculum
- 92% students say respect towards cadaver is increased after the session
- 84% students think they will keep ethical issue in mind when they do the research.
- 82% students think it will help them in doctor patient relationship.

Some of the responses of students in open ended questions are reproduced here is their own language

- This session make me feel like doctor and being a doctor I have huge responsibility toward society.
- Make me realized the cadaver is my first patient.
- Medical ethics should be part of each professional
- Professionalism is very important

DISCUSSION

Ethics play a viral and essential role in medicine. Since medicine deals with life, the property and honor of human beings, the people in society need its achievements and services. The ones who

are practicing this profession must observe special ethical principles called “medical ethics” [13]. The main aim of a medical curriculum is to generate clinically competent doctors with an ethical code of conduct to the society" Teaching bioethics to 1st year MBBS students has been focused to develop a higher degree of ethical reflection on the part of students, making them capable of evaluating ethically difficult situations and deciding what would be the morally best choice of action. Bioethics teaching requires pedagogies that engage students in participatory and emergent activities to develop multiple dimensions knowledge. These dimensions include the Scientific, personal, social and emotional aspects associated with bioethical issues.

Medical ethics as a subject hardly taught in any of the professional MBBS year. At present, the Medical Council of India curriculum does not have ‘Medical Ethics’ as a separate subject in any of its course [14]. In the curriculum, the students learn about principles of medical ethics and legal aspect in short that is educated in 2 to 3hrs under the subject of Forensics medicine. A study conducted by Brogen and others [15] observed inadequacy or knowledge regarding code of ethics and its curriculum during undergraduate medical teaching. They also emphasized need of addition of ethics in the medical curriculum through lecture, seminar, workshop or continuing medical education. The article also stressed the ignorance about Institutional ethics committee (IEC). The mean pretest score in present study also shows lack of awareness regarding code of medical ethics (table1). A similar study performed by Chatterjee [16] found only 10.9% of the students to be aware of existence of IEC and didn’t know its specific function. This highlights the need for the IEC of teaching hospitals to make them know in various health related activities at regular intervals for the benefit of trainees. In present duty after the session, 70% of students think there is need of Institutional ethics committee in the college (Table 3). Medical humanities module titled “Sparshanam” had been conducted for 1st Year medical students, using literature through small group activities, role plays, debates, etc., with encouraging results [17]. In present study too, the student’s feedback was encouraging (Table3).

Ethical constraints in relation to a cadaver do not cross the mind of medical professionals. As it may seem strange to devote attention to ethical values to cadaver. After all, it appears that there are few ethical issues surrounding dead bodies in comparison with living bodies [18]. Anatomical dissection is a time honored part of medical education. However, like use of human tissue for research purposes, use of human cadavers for teaching and training purpose is surrounded by ethical uncertainties. The main ethical concern of cadaver dissection lies in respect to human life. Recently there was news where students had put photos and videos of cadavers online [19]. Stony Brook University Medical Center in Long Island announced that it was developing a revised ethics policy, after a student posted a photo on facebook of a classmate posing the thumbs up next to a cadaver. The State University of New York Upstate Medical University in Syracuse also is updating its ethics curriculum after a former resident posted a snapshot of an exposed brain on Facebook [19]. Cadaver is the first teacher of every student the basics of medicine. The cadaver belongs to a person who decided to donate his body to make a contribution to society. Students must recognize the generosity of these donors on bequeathing their bodies as silent mentors for medical education. Thus, to appreciate this altruistic behavior of cadaveric donor, taking a cadaveric oath becomes an essential part of Bioethics [20]. Keeping that in mind cadaveric oath was administrated during the session.

CADAVERIC OATH

*I do solemnly pledge that
I will always respect the cadaver.
I will always treat cadaver with dignity
I will be compassionate towards the cadavers
I will respect the privacy and confidentiality of the cadavers
I will be grateful to the cadaver and/or their family for the gift of knowledge
I will be altruistic and use my knowledge for the service of society*

While conducting a session on medical ethics. We realized that students lacked knowledge and attitude towards ethics. Our study finding showed significant improvement in the mean score after the session (Table 1). Even the item wise analysis showed marked improvement in response (Table 2) the participant appreciated the group discussion and interactive sessions and felt that this method of facilitating learning would help the students to gain confidence and mould them into professionals. After the session, many of the students were eager to propagate their knowledge to other students who could not participate in current session. Hence the basics of bioethics is been introduced in the medical curriculum by which best professional values can be imbibed in the students.

CONCLUSION

A good physician is one who is not only technically sound, but also ethically well-grounded. Most of the medical institutes in India neglect the ethical component in their curriculum. Given the challenging environment of developing countries, it is imperative that structured education in bioethics with a proper evaluation and feedback system need m be developed. There was lack of awareness about medical ethics in 1st year MBBS students and a well organized session can improve knowledge and attitude towards subject. Training in bioethics may result in greater understanding of bioethics principles. Hence, teaching should introduce in medical curriculum from the very beginning and should continue throughout the undergraduate medical teaching.

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