

## Knowledge and attitude about medical ethics among MBBS students-A cross sectional study from an institute in Central India.

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### Abstract:

**Background:** Medical ethics are integral to all clinical encounters and public health interventions, and a foundation in medical ethics is essential for students to become virtuous doctors. Ethics teaching has been shown to have a profound influence on medical professionals' attitudes towards patients. Knowledge of biomedical ethics is acquired mostly during the undergraduate training. It is important to identify deficiencies of students and/or professionals on ethical issues and arrange sensitization and at times, appropriate training to tackle them.

**Material and Methods:** A descriptive cross sectional study was conducted among the medical students at a teaching institute in Central India. Students of final year part 1 were the study participants for the present study. A self administered structured questionnaire with questions about various aspects of ethics and source of the knowledge was used to collect data. Analysis was done with epi info software.

**Results:** Approximately 85% of the undergraduate students agreed on the statement that conduct of the doctor is of utmost importance. Around 90% of the respondents disagreed upon the statement that secrets of the patients can be disclosed. In the present survey approximately 70% of the study participants were aware that medical ethics teaching is covered as a part of syllabus and their institute has an IEC.

**Conclusion:** Undergraduate medical students in the present study have good knowledge about the concept and various aspects of medical ethics. Majority of the study participants also had a positive attitude regarding basic medical ethics in day to day implementation.

**Key Word:** Medical Ethics, Knowledge, Students, Cross sectional, India

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### I. Introduction

Ethics has been defined as the moral principles governing an individuals' behaviour or how an activity is conducted.<sup>1,2</sup> Medical ethics is chiefly concerned with values and judgment that are moral as it applies to medicine. It imparts students the skills to detect tricky situations and tackle them in a rational way following required principles. Thus education in ethics targets at helping medical students to inculcate moral principles and define as well as analyse their own values.<sup>3</sup> Medical ethics is based primarily on four principles viz respect for autonomy, beneficence, non-maleficence and justice which were initially put forth by Beauchamp and Childress from America<sup>2,4,5</sup> Importance of medical ethics in practice has always been mentioned since historical times by stalwarts like Aristotle.<sup>6</sup> Even Osler had emphasized on education of heart rather than only mind.<sup>6,7</sup>

With commercialization of medical practice worldwide ethics in medical practice has taken a backseat.<sup>8</sup> The recent advances in medical field and the widespread availability of literature online have projected various ethical issues. Moreover the occurrence of attacks on medical professionals in India is on a rise nowadays indicating decreasing faith of public in them. Of the different causes for mistrust about doctors, lack of awareness about principles of medical ethics is the considered main reason of negative publicity against medical profession.<sup>8,9</sup> To address this matter of immediate concern, training in medical ethics is being made mandatory for undergraduates by Medical Council of India (MCI). In 2002, MCI released the code of ethics which was regulatory document on professional conduct, etiquette and ethics of doctors.<sup>10</sup>

However the code and to a great extent education in ethics appears limited largely to the theory classes. Though ethics teaching has been shown to have a significant influence on the professionalism and moral qualities of medical professionals, lack of specialists in bioethics have eventually resulted in non-consideration of the urgent need to include bioethics as a part of medical curriculum in India.<sup>8,9</sup> Hence the practical

applications of medical ethics are to be realized and its scope should advance beyond the theory classes to actual clinical teaching and practice right from the early MBBS years. This demands an insight into the baseline knowledge about medical ethics in the medical students which can further determine the levels at which it can be included in the clinical teachings. The topics have been addressed by researchers from various Indian states but there is dearth of literature on knowledge and attitude related to medical ethics from the present study setting. With this backdrop the study was planned with the objectives to determine the knowledge and attitude of the undergraduate medical students about medical ethics.

## **II. Material And Methods**

The present study was conducted at the department of Community Medicine of Government Medical College, Nagpur located in the state of Maharashtra, India. As the medical college is placed in the central part of the country it has students representing different areas. The study participants were undergraduate medical students who belonged to the third year part one of Bachelor of Medicine and Bachelor of Surgery (MBBS). An approval was obtained from the Institutional Ethics Committee (IEC) regarding conduct of the study before starting it.

**Study Design:** It was a descriptive cross sectional study

**Study Location:** This study was carried out in the Department of Community Medicine of a tertiary care teaching institute at Government Medical College Nagpur which is located in Central India.

**Study Duration:** The study was carried out over a period of three months from September 2019 to November 2019.

**Sample size:** 166 medical students

**Study participants:** Undergraduate medical students of Final year part were participants for the present survey.

**Study tool:** A preformed structured questionnaire designed referring available literature<sup>3,11</sup> on the topic was used the study tool. It included open and closed ended questions (total 26 in number) pertaining to knowledge and attitudes about medical ethics.

### **Procedure methodology**

The study participants were explained about the nature and purpose of the study in their Community Medicine lecture during which link of the Google form was shared with them. On clicking the link the students were directed to the informed consent form that was followed by the 26 item questionnaire. The Google form link was shared with all the 200 students of the batch. In this way universal sampling technique was applied. Participation in the survey was voluntary. Complete anonymity was maintained and no questions that can reveal their identity were included in the questionnaire.

The questionnaire was divided in three sections. The informed consent section of the questionnaire provided the description of the study in brief and further asked if the participants are giving a consent regarding participation in the study. Thus consent was obtained from the survey participants. Next section was about the socio-demographic details as age and gender. This was followed by the section on knowledge and attitude. The study participants were instructed to mark their responses for the statements on knowledge about medical ethics on a five point Likert scale (strongly agree, agree, neutral, disagree and strongly disagree).

### **Statistical analysis**

Data thus obtained from the responses was copied in Microsoft excel software. Statistical analysis was done with the help of open epi info software. Percentages and mean were calculated.

## **III. Result**

Out of the total 200 students, 182 were present in the classroom on the day of survey. Completely filled in proforma with the consent was returned by 166 medical students thus making it a response rate of 91.2%. The age of the study participants was in the range of 20 to 24 years. Mean of the age was 21.4 years with a standard deviation (SD) of 1.11 years. Male study participants were 89 (53.6%) and the remaining 77 (46.4%) were female students.

The study questionnaire included 17 questions to assess the knowledge of participants regarding medical ethics of which two questions were open ended and 15 were closed ended questions. Almost all the medical undergraduate students who participated in the study had a correct knowledge about the concept of medical ethics. This was evident from their reply to the open ended question on what is medical ethics which had variety of responses mainly in the form of – medical ethics term means moral principles, moral values, moral principles that governs people's behaviour, respecting our duty or our patients and our colleagues, dealing with doctor-patient relationship, Principles which guide us to live together in harmony and peace, doing one's job in the right way, Ethics means morals that govern our actions, the correct way of practice, beliefs about

what is correct and acceptable, the principal we use to deal with people irrespective of their belongings, how a doctor (anyone) should behave with his/her fellow doctors /colleagues/teachers a set of moral principles which a doctor should observe while interacting with the patient as well as the other doctors. etc. Although the students used multiple terms to describe their idea of medical ethics its correct meaning was indicated in these responses.

Next 12 statements in the questionnaire were put forth to obtain responses on a five point Likert scale as shown in table 1. Approximately 85% of the undergraduate students agreed on the statement that conduct of the doctor is of utmost importance. Around 90% of the respondents disagreed upon the statement that secrets of the patients can be disclosed indicating they also had correct knowledge that secrets of the patients that come out during history taking or examination should not be disclosed. Similarly correct knowledge about situations for which consent is needed i.e. even medical examinations, laboratory tests etc. and not only operations was also noted in around 80% of the students. The details are presented ahead in the table 1.

**Table 1** Distribution of study participants according to knowledge

Knowledge statements	Strongly agree no. (%)	Agree no. (%)	Neutral no. (%)	Disagree no. (%)	Strongly disagree no.(%)
Conduct of the doctor carries utmost Importance	64 (38.6)	78 (47.0)	18 (10.8)	2 (1.2)	4 (2.4)
The secrets of patients can be disclosed	0	4 (2.4)	6 (3.6)	64 (38.6)	92 (55.4)
Consent is needed only for operations	2 (1.2)	20 (12.0)	10 (6.0)	94 (56.6)	40 (24.1)
Ethical conduct is meant only for the sake of avoiding legal action	6 (3.6)	26 (15.7)	24 (14.5)	70 (42.2)	40 (24.1)
Children should always be treated with their parents' consent except in emergencies	38 (22.9)	94 (56.6)	20 (12.0)	14 (8.4)	0
Laboratory Investigations should be a routine even if a case is confirmed clinically	22 (13.3)	100 (60.2)	21 (12.6)	19 (11.5)	4 (2.4)
If law allows abortion, doctors must never refuse to do abortion	24 (4.5)	74 (44.6)	42 (25.3)	26 (15.7)	0
If patient is uncooperative or violent, doctor has the right to refuse treatment	60 (36.1)	70 (42.2)	20 (12.0)	14 (8.4)	2 (1.2)
The doctor should do what is best irrespective of the patient's opinion	12 (7.2)	52 (31.3)	41 (24.7)	51 (30.7)	10 (6.0)
During clinical rounds along with clinical aspects it is also necessary discuss ethical issues of that patient	26 (15.7)	118 (71.1)	16 (9.6)	6 (3.6)	0
Privacy of one patient can be ignored for benefit of the larger group	26 (15.7)	54 (32.5)	32 (19.3)	30 (18.1)	24 (14.5)
Brand name should be preferred over the generic name of a drug	0	40 (24.1)	48 (28.9)	56 (33.7)	22 (13.3)

The students were also asked about the concept of euthanasia. In response to the open ended question on what is euthanasia responses mostly were in the form of euthanasia means mercy killing, persons' will to end his or her life legally death as per own wish, etc. Many other responses describing euthanasia were as follows: It is intentionally ending of live to relieve from incurable condition, .it is a practice to kill the patient on our self as there is no hope of his survival..and his pain due to the infirmity is extreme and there are no chances of recovery, End the life of a person with incurable disease with his own wish only, Termination of medical care(ventilation or intensive care ) of terminally ill patient with consent of the patient taken prior to deterioration of health or the family of the patient so as to facilitate the demise and end suffering of patient", "Voluntary death wish", "Assisted suicide of a terminal patient", "Due to certain suffering patient in willfully terminated to relieve him of the suffering due to disease", "Termination of life of very sick person in order to relieve suffering of patient", "Lawful Killing of an individual who has Poor quality of life and wants to die either by giving him drugs or withdrawing treatment" and so on.

Certain other aspects on knowledge regarding medical ethics were assessed in the form of three questions to be answered as yes, no or do not know. Details on knowledge of presence of laws on euthanasia, medical ethics as a part of curriculum etc. are tabulated in Table 2.

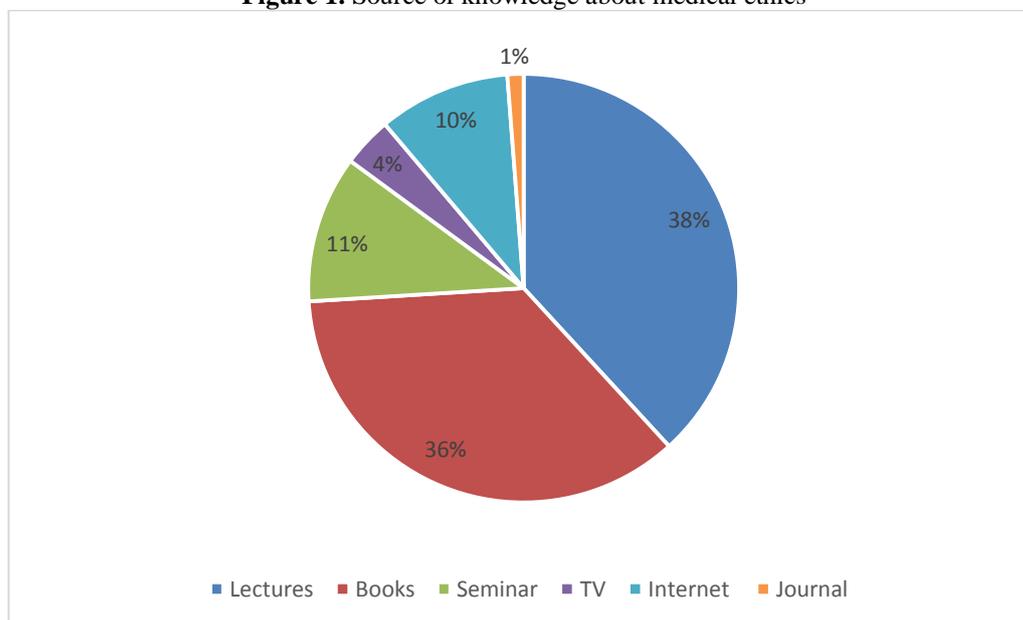
**Table 2** Distribution of study participants as per miscellaneous aspects of knowledge about medical ethics.

Knowledge questions	Yes n0.(%)	No no. (%)	Don't know no. (%)
Does Indian law permit euthanasia?	53 (32.0)	97 (58.4)	16 (9.6)
Medical ethics teaching is a part of medical syllabus in India	124 (74.7)	15 (9.1)	17 (10.2)
Does this institution have an Institutional ethics	118 (71.1)	4 (2.4)	44 (26.5)

Committee (IEC)			
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As seen from the table 2, very few students expressed that Indian law permits euthanasia. In the present survey approximately 70% of the study participants were aware that medical ethics teaching is covered as a part of syllabus and their institute has an IEC. The study participants were asked regarding their source of knowledge on medical ethics which is displayed graphically in the form of a pie chart (Figure 1). Lectures and books were the chief sources of their knowledge on ethics as reported by more than 30 % participants.

**Figure 1.** Source of knowledge about medical ethics



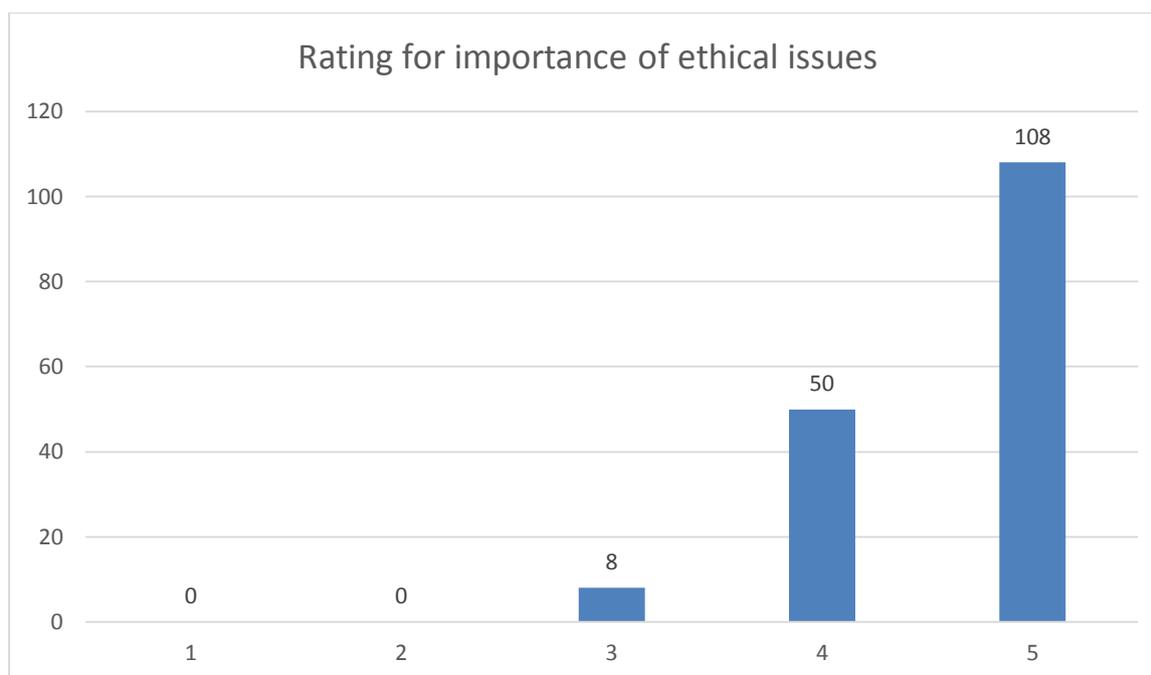
A five point Likert scale was used to assess the attitude towards ethics as shown in Table-2. Among the 156 study participants, Twenty six percent of the study participants strongly agreed that patients should be informed of wrong doing by anyone involved in his/her treatment. Sixty eight percent of the students had a positive attitude regarding the statement on do they think that close relatives must always be told about the patient’s condition.

**Table 3.** Attitude regarding certain aspects of medical ethics

Attitude questions	Strongly agree no. (%)	Agree no. (%)	Neutral no. (%)	Disagree no. (%)	Strongly disagree no.(%)
Do you think that patient should always be informed of wrong doing by anyone involved in his/her treatment	44 (26.5)	91 (54.8)	22 (13.3)	6 (3.6)	3 (1.8)
Do you think that patients’ wishes should always be adhered to	18 (10.8)	54 (32.5)	62 (37.3s)	32 (19.3)	0
Do you think that doctor should do what is best irrespective of the patient’s opinion	12 (7.2)	52 (31.3)	42 (25.3)	50 (30.1)	8 (4.8)
Do you think that certain medical practitioners charging more from rich patients to compensate for treating the poor is good	14 (8.4)	34 (20.5)	34 (20.5)	60 (36.1)	24 (14.5)
Do you think that close relatives must always be told about the patient’s condition	24 (14.5)	90 (54.2)	20 (12.0)	28 (16.9)	4 (2.4)
Do you think that Confidentiality cannot be maintained in modern care	4 (2.4)	22 (13.3)	36 (21.7)	80 (48.2)	24 (14.5)

In response to the question “How important are ethical issues in your profession?” the study participants were told to grade on a five point scale from 1 to 5. The responses for it are represented in figure 2 ahead

Figure 2 Importance of ethical issues



#### IV. Discussion

Ethics in medical practice is getting much attention nowadays. It has also been stressed upon by medical education with continued medical education and conferences on the topic. Conflicts of ethics may happen during the commencing years of a medical professional's career which makes the inculcation of a sound *foundation* in medical ethics essential.<sup>12</sup>The present study has tried to assess the knowledge about medical ethics among medical students almost every one of whom had a correct mind set about the concept. This could be because the study was conducted among the final MBBS students who have already been imparted guidance about the topic partly during their previous year subject curriculum and also during their clinical postings. This is emblematic of at least the awareness among the budding doctors with regards to ethics which can imply that it can come in their dealing with patients. In the present study, majority of the participants i.e. three- fourth expressed agreement (one fourth strongly agreed a half agreed) concerning the statement that conduct of doctor is of utmost importance. This is less than the observation in another study done among practicing doctors where 91.2 % respondents expressed that medical ethics is important in clinical practice.<sup>13</sup> The difference in the observation could be due to the reason that the study was conducted among doctors in practice who might have already realized the importance of ethics whereas the present study participants were students who have dealt with patients only during their postings.

In the present study, almost all of the undergraduates had the correct knowledge that secrets of the patients should not be disclosed. This is coherent with the survey by El Bushan who also reported that their participants believe that the patient history should be kept secret.<sup>13</sup>The present study showed that approximately 80% of its participants disagreed (strongly disagree and disagree clubbed together)about the statement that consent is needed only for operations. This observation is similar to that of Janakiraman C et al WHO conducted among medical post graduate students in South India wherein 83% disagreed as consent is required merely for surgical procedures.<sup>14</sup>However this does not match with study by Iswarya S and Bhuvaneshwari Swich which conveyed that 64.7% of the participants disagreed that consent is obligatory only for operations.<sup>3</sup>

In the present study, majority of the participants disagreed upon the statement that ethical conduct is meant only for the sake of avoiding legal action which is coherent with the findings of another study.<sup>14</sup>Study by Angadi MM et al conducted among under graduate medical students from Bijapur reflected that 22.8% of their participants were of the opinion that by following ethical principles legal issues can be avoided.<sup>15</sup> While on the contrary another study from a private medical college of India showed that 50% of the undergraduate medical students who participated in the study disagreed upon the statement concerning need of ethical conduct only to avoid legal actions.<sup>3</sup>

Study participants who were of the opinion that privacy of one patient can be ignored for benefit of the larger group accounted for around half (48%) and those who chose to remain neutral on the statement were 19.3%. This observation is different from that of another study wherein only 32.3% undergraduate students agreed upon such statement.<sup>3</sup>

Major bulk of the study participants agreed upon the sentence that during clinical rounds along with clinical aspects it is also necessary to discuss the ethical issues of that patient. There were mixed opinions regarding usage of brand names of drugs instead of the generic names. Almost one-fourth study participants agreed, another one-fourth remained neutral and almost one-half disagreed upon the asseveration. Most of the study participants were also aware of the term euthanasia well reflected in their answer about the term. However approximately half of the students stated that in India euthanasia is not legal, more than one-fourths affirmed that Indian government allows it and remaining did not know about it.

Majority of the students also knew that Institutional ethics Committee (IEC) exists for the Institute. However another Kolkata based study reported lesser awareness about presence of IEC in the college.<sup>2</sup>This could be due to the fact that the present study included students of final year part 1 while the Kolkata based study was carried out among undergraduate medical students of all years. Short term student (STS) projects under Indian Council of Medical Research (ICMR) are opted for many students of the present institute. This also explains the correct knowledge regarding presence of IEC of the college as they have to obtain permission from the IEC before undergoing the project. When asked about the source of knowledge related to medical ethics, lectures followed by books were the common sources.

The present study participants also seemed to have positive attitudes towards the patients as shown by their responses on the various attitude statements. More than half agreed that the patient should be informed any wrong doing to him or her. Almost similar mass of the participants also agreed upon the statement that they think that close relatives of the patients should always be kept aware about the condition of the patient. These observations go hand in hand with that of other studies.<sup>3,14,15</sup>

It is also a good sign that more than three-fourth of the study participants rated ethical issues as the highest in the present study. This can be considered as an indication that even in practice in their future life medical ethics will be given importance by the generation which in a long run may amount to decreasing the conflicts with the patients.

## V. Conclusion

Medical professionals have always been the target of community and have been criticized often about their dealing with the patients and ethical practice. Inclusion of ethics in the medical curriculum to address this in past decade has inducted medical students with respect to ethics to a large extent. Based on the findings it can be concluded that undergraduate medical students in the present study have good knowledge about the concept and various aspects of medical ethics. Majority of the study participants also had a positive attitude regarding basic medical ethics in day to day implementation. However the neutral or do not know responses by respondents while answering some questions may implicate their less knowledge on that particular aspect. Probably in next few years the breach about the knowledge will be overcome by realization of importance about the topic.

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