

**Awareness of medical ethics among medical students in a medical college in Bangalore**

Suwarna Madhukumar<sup>1</sup> \*, Pavitra M B<sup>2</sup>, Amrita N.S<sup>3</sup>.

**Affiliation:** : 1 Professor & HOD, 2 Associate Professor & 3 Assistant Professor, Department of Community Medicine, MVJ Medical college Bangalore

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**\*Author for correspondence:** Dr. Suwarna Madhukumar, MBBS MD (Community Medicine), Department of Community Medicine, MVJ Medical college & RH, Dandupalya, Kolathur Post, Hosakote, Bangalore Rural, Karnataka. Pin: 562114. Email – [suwarna.sj@gmail.com](mailto:suwarna.sj@gmail.com)

**ABSTRACT**

**BACKGROUND:** Medical ethics is a sensitive framework embedded within the professionalism of medical personnel. There are very few medical colleges in India with a standardised ethics curriculum, and with provisions for evaluation. **OBJECTIVE:** This article aims to assess the knowledge of, practices in and attitudes to healthcare ethics among postgraduate medical and interns students. **METHODOLOGY:** A questionnaire-based, cross-sectional study was carried out at in a medical college in Bangalore. A total of 225 interns and postgraduate students were interviewed. (Response rate 94%). The questionnaire, which was a 35-item pre-tested, self-administered questionnaire, included both closed and open-ended questions. The proposal for the study was approved by the institutional review board (IRB) and the permission of the respective heads of department was obtained. Written consent was obtained from each participant. The returned questionnaires were analysed using SPSS version. Descriptive analysis was carried out for all the data **RESULTS:** Medical postgraduates and interns had obtained their knowledge of bioethics from "other sources such as the Internet, newspapers, etc followed by their "undergraduate training" and "experience at work": Nearly 98% of the medical postgraduates knew that their institution had an ethics committee. There was a difference between the postgraduate students and interns in terms of their attitude to and knowledge of healthcare ethics, with the former having a superior knowledge of the subject and a better attitude. **CONCLUSIONS:** The interns and postgraduates come across ethical issues during their training, but are not equipped to resolve the ethical dilemmas they encounter. The incorporation of a bioethics curriculum in the initial period of the postgraduate programme would be beneficial.

**Key Words:** ethics, negligence, training, curriculum.

**INTRODUCTION**

Medical ethics is a sensitive framework embedded within the professionalism of medical personnel. Non-adherence to healthcare ethics and unsatisfactory management and solution of the cases not only threaten to impair doctor-patient relationships, but may also lead to suboptimal service delivery and potentially trigger incidences of violence and abuse. The four basic principles of medical ethics (autonomy, justice, beneficence and non-maleficence) form the foundation for health professionals to guide and decide what practices are ethical in clinical settings. These basic ethical principles are grounded on the major documents of healthcare ethics (Hippocratic Oath, Nuremberg code, and Helsinki declaration). There are very few medical colleges in India with a standardised ethics curriculum, and with provisions for evaluation (1).

Medical students undergo intensive training in their specialties and their focus is chiefly on organ specialisation. Medical students need intensive training in bioethics so that they have an appreciation of the patients'

rights, cultural differences and research ethics, and are equipped to resolve ethical dilemmas.

Doctors attending to patients in an emergency health situation have often had to face assaults on account of the recent increase in the awareness of patients' rights in India (2,3).

These may be due to the paternalistic attitude of the doctor or a lack of understanding, or may simply be emotional outbursts. Advances in biomedical technologies such as life support and artificial reproductive technologies have brought new ethical dilemmas in their wake and have exacerbated the problem.

Ethical dilemmas are usually encountered in areas such as abortion, contraception, treatment of a patient with a terminal illness, professional misconduct, maintaining a patient's confidentiality, the doctor's professional relationship with the patient's relatives, religion, traditional medicine, and conflict of interests. The conventional medical course offers students little help in

resolving the ethical dilemmas they will encounter as healthcare professionals. Training in medical ethics has been made mandatory in the undergraduate curriculum by the regulatory body of medical education, the Medical Council of India (MCI); but it has been placed under forensic medicine (4).

The teaching of bioethics should also be holistic. For example, students could be taught about the value of the “heart” over the “mind”, of the system of values and beliefs in a community, and of the need to understand the lived experiences of patients; while also incorporating various ethical approaches (4).

There are varied views on strategising the teaching of bioethics. Most of them emphasise the importance of tailoring the teaching of the subject to the needs of the society concerned (5).

The dearth of specialists in bioethics and a lack of organised human resources has led to lack of appreciation of the urgent need to include bioethics in medical education in India. Further, there are concerns that teaching bioethics as an organised science might be problematic and would not be feasible (5). In India, due to the cultural mosaic, the teaching of bioethics needs to encompass the various perceptions of morality and ethics unique to people from different cultural, socioeconomic and geographical backgrounds (4). The training in this subject should be integrated with the local social and cultural values.

The first step in formulating an ethics curriculum may be to determine the level of the basic knowledge and attitudes of the students in the region. Few standard yardsticks have been designed to measure what is known and practised so as to ensure that educational efforts are better targeted (6).

The objective of this study was to assess the knowledge of, attitude to and practices in healthcare ethics among medical students.

**Objectives of study:** To assess the knowledge regarding medical ethics among interns and postgraduates; To assess the mode of education obtained on medical ethics during the medical course; To assess the attitude of students towards different aspects of healthcare ethics.

## MATERIAL AND METHODS

The present study is a cross sectional study carried out by the Department of Community Medicine, M V J Medical College and Research Hospital. The study was carried out from Dec 2017 to March 2018. The study population comprised of all the interns and postgraduates. Institutional ethical clearance was obtained before the start of the study. The 35-item questionnaire was a self-administered, semi-structured one with both open and close-ended questions, designed to assess the students’ knowledge, attitudes and practices in the sphere of healthcare ethics. The content of the questionnaire was validated before the study. The demographic variables, such as the year in which the student was studying, and his/her specialty, age and gender, were included in the

questionnaire. The second part of the questionnaire consisted of questions regarding the importance of a knowledge of ethics, the source of this knowledge and the source of consultation in case an ethical problem arises. The respondents were asked whether they were aware of the presence of an ethics committee in their institution, and about the role of these committees. The questionnaire mentioned eight roles that ethics committees might play and the respondents were asked to indicate whether they thought the committees played these roles by choosing between “yes”, “no” and “not sure”. In the final part of the questionnaire, the respondents were asked to answer questions on everyday ethical issues. They were asked if they agreed or disagreed with certain statements concerning ethical conduct, autonomy, paternalism, confidentiality, informing patients about wrongdoing and informing relatives about the patient’s condition, informed consent, and the influence of religious beliefs on the treatment. The respondents were required to grade their responses on a Likert scale ranging from 1 to 5.

**Statistical analysis** The data were analysed using Statistical Package for Social Sciences (SPSS) – version 11.5. Descriptive analyses were carried out for all the data.

## RESULTS

A total of 101 interns and 138 postgraduates’ students consented to participate in the study. A total of 225 returned the completed questionnaire. Thus, the response rate was 94%. The mean age of the students was 29.9±3.6 years. As many as 83.8% of the participants in the study were males and the remaining females. Table 1 presents the characteristics of the study participants.

**Table no 1 - Participants knowledge about health care ethics**

Do the participants know	N=225	Percentage
1. Hippocratic oath	221	98
2. Nuremburg code	47	21
3. ICMR guideline	53	23.4
4. Helsinki Declaration	45	20
5. Importance of ethics in your work	171	76
6. How often do you come across ethical issues.	92	41
7. How often do patients ask you about the diagnosis.	187	83
8. How do you acquire your knowledge of bio-ethics		
9. Have you attended training in Bioethics	72	32
10. Have you taken informed consent	176	78
11. Is there an ethics committee in our institution	221	98

Out of all, 76% opined that the knowledge of ethics was very important. Almost all the participants wanted to be aware of all the ethical issues. The reason cited was to prevent any legal issues.

**Table no 2- Responses regarding ethics committee**

S.No.	Particulars	N=225	%
1	To ensure standard ethical practices among health care personnel	16	7
2	To advise the faculty during ethical dilemmas	25	11
3	To approve and guide research	173	77
4	To settle conflicts between staff	7	3
5	To settle conflicts between staff and patients	54	24
6	To teach medical ethics to students	119	53

**Table no 3- Attitude of the study population towards Ethics**

Particulars	N=225	Percentage
Doctors know the best irrespective of the patients opinion	189	84
Patient should always be informed of the wrong doing	164	73
Patients wishes to be adhered too	32	14
It is difficult to maintain confidentiality so should be abandoned	171	76
Consent is not require for tests and medications	200	89
We can charge more from affording patients to compensate for the non-ethical conduct is important only to avoid legal action.	164	73
It is essential to discuss social and legal issues of the patient	27	12
Close relatives must always be told about the patients condition	52	23
Children should never be treated without the consent of their parents	95	42
Patient who behave violently should be refused treatment.	187	83
If a patient wishes to die he should be assisted in doing so	196	87
Consent of the patients is must while conducting intimate clinical	104	46
Privacy of a patients can be ignored for the benefit of the larger group	173	77
If the law does not permit abortion it is ok to conduct for the benefit of the patients	137	61
Ethics should be taught as a part of the curriculum	115	51
It is Ok to receive money from referring patients to another doctor or laboratories	176	78
Are doctors influenced by pharmaceuticals companies	155	69
In order to prevent transmission of infectious diseases disclosure of the	158	70
Given a situation , a male doctor can refuse to examine a female patient if a	176	78
	182	81

Nearly all them had knowledge of the Hippocratic Oath, but surprisingly, only 23.4% of them had knowledge of the Indian Council of Medical Research (ICMR) guidelines on ethics for research, the Nuremberg Code and the World Medical Association’s Helsinki Declaration.

Thirty-five per cent of the study population correctly expanded the abbreviations IRB, ERB (ethical review board) and IEC (institutional ethics committee), while 51% provided the wrong answers, and 14% reported that they had not heard of these terms.

Table 2 presents the responses of the study subjects to questions on their knowledge of healthcare ethics. More postgraduates considered knowledge of bioethics important in their daily practice than the interns. It was obvious because the postgraduates were more exposed to ethical issues and were more involved in decision making process than the interns. The postgraduates had obtained their knowledge of bioethics from sources such as the Internet and newspapers, from their teachers mainly during ward rounds and OPD followed by their undergraduate training and experience at work. Nearly 68% of them had not attended any bioethics training during their post graduation. Nearly 98% of the postgraduates knew that their institution had an ethics committee while only 63% interns knew about it. Most of them were not sure if there was a separate ethics committee for animal and human research. As for the various roles of ethics committees, 76.6% study subjects, felt that the role of ethics committees is to approve thesis work of the postgraduates.

There were 14% students agreed that “During treatment, the patient’s wishes must always be adhered to.” On the other hand 84.3% students opined that “The doctor should do what is best irrespective of the patient’s opinion.” 73% students will tell the patients “if something goes wrong” and 86% will tell the truth to “close relatives”. 82.6% agreed that “Children (except in emergency) should never be treated without the consent of their parents or guardian.” (Table 3). In case of any wrongdoing in treatment, 80.2% of them informed their patients. Nearly 83.8% of them agreed that informed consent was required for treatment such as surgery, but did not feel it was necessary for investigations. Of the study population 11.7% agreed that ethical conduct is required to avoid legal issues. Overall, 92.7% of the participants had obtained informed consent for their research work they carried out. All the postgraduates had taken ethical clearance for their thesis as it was mandatory.

42% students were uncertain while dealing with “patients who behave violently” and 64% disagreed to the suggestion of euthanasia. 55.9% agreed they will refer the patient to another doctor for religious conflict situations. A majority (77.3%) expressed their commitment to take “informed consent and maintain confidentiality” while doing intimate examinations of patients and 68.6% also agreed that it should be followed even for “anaesthetised or sedated patients”.

The study population told that when faced with ethical dilemmas, it was the unit heads or the head of dept who were consulted most often followed by the other faculty in the dept.

## DISCUSSION

There are probably very few studies done to assess the knowledge, practices and attitudes related to healthcare ethics among medical graduates

Ethical conflicts are common during the initial years of a medical professional's career which makes the inculcation of a sound foundation in medical ethics essential.

The majority of students knew the importance of medical ethics in their professional life, which is similar to the studies done by Hariharan *et al* at the Cave Hill Campus in Barbados in 2003 (7)

The study by Shiraz *et al* (8) of surgical team members in Karachi, in 2004, had found that only 3.96% of surgeons did not consider the teaching of ethics at the undergraduate level to be necessary. Another study by Hariharan (7) and others showed that 52% of senior medical staff and 20% of senior nursing staff at their institution in Barbados knew little of the laws pertaining to their work. Study done by Janakiran C (10) also showed similar results.

The main sources of ethics knowledge as quoted in most of the studies were classroom lectures and books on ethics as part of forensic medicine. But in our study the main source was through internet, newspapers and experience.

A study by L W Roberts (9) in 2004 among medical students at a New Mexico school found that respondents preferred clinical and expert-oriented learning like case conferences, and workshops involving a multidisciplinary approach over the traditional didactic approach which was also shown as significantly [ $p < 0.0001$ ] effective. Discussion by multidisciplinary experts, of experiences in the field, may be helpful to train ethically competent doctors. Most of the students were aware of the existence of the institutional ethics committee and many of them did not know its specific functions. This highlights the need for the administrative section of teaching hospitals to publicise their work at regular intervals for the benefit of trainees. The institutional ethics committee should publish reports related to its involvement in different health-related activities within the institution, and these should be circulated among the students as well.

Students were not very clear about whether "ethical conduct is only important to avoid legal action". Students often expressed contradictory views in different areas of ethical issues e.g.- while dealing with treatment of patients, some of the students agreed to adhering to "patient's wishes", on the other hand nearly 2/3<sup>rd</sup> of the students opined that "doctor should do what is best" ignoring the patient's opinion. Similarly, while undertaking an intimate examination the majority committed to "maintain confidentiality". At the same time most students said that the privacy of one patient may be ignored for the benefit of teaching purposes. Reasons for this could not be explained properly, but perhaps the students were more interested in developing their clinical acumen rather than in ethics. In some other areas like treating "children", taking "informed consent", telling the

truth about the worsening condition of patients to "close relatives", a majority understood the issues. More students disagreed with the statement that physicians must aid patients who wish to die, regardless of the illness. This too, is similar to the findings shown in the study by Walrond, Jonnalagadda, Hariharan and Moseley (7,10)

While the results of the study show that there was no difference in knowledge with respect to the gender. There was a significant difference when compared with different subspecialties, ie medical, surgical, preclinical year of study. This probably explains the difference between the two as far as appreciation of ethical issues is concerned. The respondents had obtained their knowledge of ethics from various sources. Though it appeared that their postgraduate training was a key source of knowledge, it did not contribute more than their experience at work, their own reading and what they learnt by attending seminars. The undergraduate ethics training does not adequately equip postgraduates to deal with the complex ethical issues they encounter in their daily work, which involves direct and often crucial intervention in others' lives (6). A separate module for bioethics, accompanied by evaluation, needs to be incorporated into the medical curricula.

The present medical curricula, drawn up by the Medical Council of India, do not prescribe evaluation either by a written or oral examination (4). Unless such evaluation is incorporated, medical teaching institutions and students will not feel that the learning of bioethics is important. Bioethics or medical ethics has to be taught by a specialist in medical ethics. At present, the forensic and community medicine faculties teach medical ethics and they focus more on medical jurisprudence (5). There is a need to encourage training of medical faculty in ethics or bioethics and eventually, to create a separate and independent department of medical ethics or bioethics. Bioethicists from different backgrounds, such as the social sciences, philosophy and medical sciences, could be faculty members in the department of bioethics. It is interesting to note that though postgraduates were aware of the difference between animal and human research ethics committees, they did not know about the functions of the ethics committee in their institution. A similar observation has been made by studies conducted elsewhere (7,8,9,10). This could be due to the committees' limited role, which perhaps relates only to research ethics and not to clinical ethics training. Most ethics committees review the research proposals, unless the study is funded. We suggest that health care personnel be trained to use different methods of deliberation on the moral issues (6) involved in clinical cases – a standard practice in western medical training. These methods need the expertise of clinical bioethicists who can form a part of comprehensive training in bioethics for healthcare personnel. We could assess the basic knowledge and attitudes of postgraduate and interns regarding healthcare ethics in order to obtain basic information for the framing of a bioethics course in the medical curriculum. This

study has the limitation that it does not cover a wider range of postgraduates, as well as the fact that it is only descriptive in nature.

### Conclusion

Medical students frequently encounter ethical issues in their training, but lack the sensitivity to resolve these dilemmas. The incorporation of a bioethics curriculum in the initial period of the graduation and post-graduation programmes would be beneficial.

This study highlights the lack of improvement in ethics awareness corresponding to increasing exposure to medical education over four years.

To strengthen ethical reasoning and judgment in decision making, clinically oriented pedagogical measures like case studies, seminars, interactive workshops, utilising the work experience of multidisciplinary medical expertise, is needed. This should be an ongoing process, akin to continuing medical education.

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