

Knowledge, Attitude and Practice of Medical Ethics among Medical Graduates and Post Graduates in a Tertiary Care Teaching Hospital in Navi Mumbai

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Abstract

Introduction: This study aimed to assess the knowledge, attitude, and practices of medical ethics among the medical graduates and post-graduates of a tertiary care teaching hospital.

Materials & Methods: A cross-sectional study was conducted after approval from the ethics committee. A structured questionnaire containing 25 multiple-choice questions relating to medical ethics was validated, pre-tested, and distributed using Google Forms. A total of 262 students participated in the study. The data was entered into an EXCEL sheet and statistical analysis was performed with the help of SPSS version 21.0 and SAS version 9.0.

Results & Conclusion: The study covered 262 students, of whom 52.3% were post-graduates and 47.7% were interns, with a female predominance. The survey revealed a notable deficiency in doctors' understanding of medical ethics, indicating potential gaps in their knowledge of ethical principles. Encouragingly, the survey also demonstrated a positive attitude among doctors towards the importance of medical ethics, suggesting their willingness to engage constructively with moral concerns.

The study concluded that a lack of adequate knowledge of medical ethics and unfavourable disposition toward medical ethics. Addressing their insufficient knowledge is imperative to enable them to effectively navigate ethical challenges and deliver the highest quality of care to their patients.

Key Words: KAP Study, Medical Ethics, Ethical dilemmas, Paternalism, Consent in Medicine

Introduction

Ethics has been defined as "the moral principles that govern a person's behaviour or how an activity

is conducted" and medical ethics as "the branch of knowledge in medicine concerned with moral principles".¹ The application of ethics to medical practice dates back to ancient civilization as even

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today, all medical graduates must swear symbolic adherence to the Hippocratic oath.² Presently, the medical profession is governed by a Code of Ethics and Etiquette and laws regulating the profession which the National and State Medical Councils and the World Medical Association lay down.

There has been growing public awareness regarding the ethical conduct of medical practitioners, and complaints against physicians appear to be escalating. This may reflect an increase in unethical practices done by doctors or increasing public and media awareness about medical facts and fallacies, professional accountability, and rights of patients in terms of information, decision-making, and assessing outcomes.³ In medicine, professionalism connotes not only knowledge and skills, but also character, especially compassion and ethics.⁴ It is a commitment to subordinate our self-interest to the interest of patients and it is the foundation of trust upon which our social contract as physicians rests.⁵

Medical students are taught various subjects to tackle medical problems, but are they taught ethics to solve the moral quandaries that they are likely to face in their practice in the future⁶. 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.⁷ Despite the presence of the AETCOM module, its implementation and effectiveness across institutions remain uncertain and largely unassessed. Moreover, there is a deficiency of published data from Indian medical colleges, especially in the Navi Mumbai region, assessing the knowledge and application of medical ethics in real-world scenarios. This study was conducted to assess the knowledge, attitude and practice of medical ethics and professionalism among the medical graduates and post-graduates of D Y Patil School of Medicine, Navi Mumbai to provide insights that can guide curriculum refinement and promote ethical clinical practice.

Materials and Methods

A cross-sectional study was conducted at D Y Patil School of Medicine after approval from the ethics committee. Consent was taken from the participants

before the beginning of the study. Confidentiality was maintained.

Sample size: 262

The sample size was calculated by taking 42.1 as the percentage of people with adequate knowledge in the population based on a similar study conducted in 2015.⁸ The confidence level will be taken as 95% with a 5 % margin of error and a total population of medical graduates being close to 800 in number.

Study Period: A period of 3 months, from 30th August to 30th November 2023.

A structured questionnaire containing 25 multiple-choice questions relating to knowledge, attitude, and practices of medical ethics was devised, validated, and pre-tested using Google Forms. The first part of the questionnaire consisted of the demographic characteristics of the respondents including age, gender, and educational qualification. The second part consisted of nine questions on their knowledge of ethics and professionalism. A score of either 0 or 1 was assigned to each question and summed up with a maximum score of 9. In the third part, respondents were required to state if they agreed or disagreed with nine statements concerning ethical conduct, confidentiality, informing patients about wrongdoings, informed consent, abortion, etc. The responses will be provided on a Likert scale ranging from 1 to 3 (1-agree, 2-disagree, 3-not sure). The final part consisted of seven questions on their practices of ethics and professionalism.

Data Analysis

The data was entered into an EXCEL sheet for statistical analysis. Analysis was done with the help of SPSS version 21.0 and SAS version 9.0. The collected data was interpreted using appropriate statistical methods like percentages and proportions. The chi-square test was used for comparison across the groups, and a probability value of 0.05 was considered significant.

Results

The study covered 262 students at D Y Patil School of Medicine, Navi Mumbai, of which 52.3% were post-graduates and 47.7% were interns with a female predominance.

Most respondents (140, 53.4%) had not read the Code of Ethics (Figure 1). Around 75.2% (197) of the respondents said that they were taught about medical ethics in their undergraduate curriculum and 24.8% (65) could not remember whether or not it was taught. 47.4% (124) felt that the undergraduate medical ethics curriculum was inadequate while 47% (123) thought it was inadequate. 5.7% (15) of the respondents gave a neutral opinion. In a multiple response query, the majority (132, 50.4%) responded that they obtained their knowledge of ethics from their undergraduate curriculum, 34.7% (91) said that they acquired knowledge of ethics through experience at work, whereas 15.1% (39) stated that they got it through attending lectures, seminars, workshops or continuing medical education (CME) and own reading.

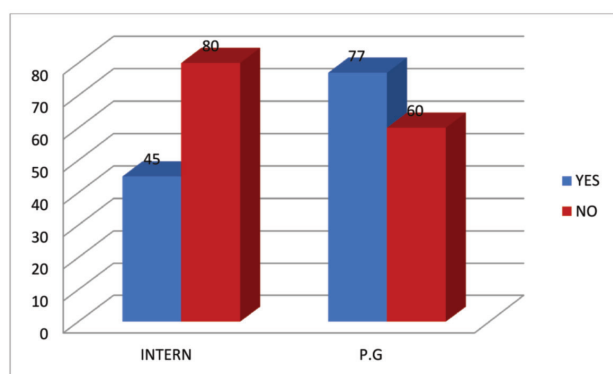


Figure 1: Knowledge of Code of Ethics by Education/Designation

Only 108(41.2%) of the respondents correctly answered the question regarding the guidelines

on the required hours of participation by medical professionals in a CME session in a year. 101(38.5%) responded correctly when asked how long records for indoor patients were to be maintained, and 102 (38.9%) could give the correct response regarding the period within which a physician has to produce the records when asked by patients or legal authorities and 221 (84.4%) responded correctly regarding the requirement of consent for tests and medications.

Among the postgraduates and interns, 49.6 % agreed with the statement doctors know the best irrespective of patients' opinions, while 5.3 % remained neutral, indicating a paternalistic attitude. Most postgraduates and interns agreed with the statements that close relatives should always be informed of the patient's condition, patient autonomy should always be respected, and children should never be treated without parental consent. Over 80 % of participants concurred with these statements. There was a statistically significant difference between the opinions of senior and junior doctors regarding the statements "Patients should always be informed of wrongdoing by anyone involved in their treatment" ($p = 0.022$) and "Doctors should refuse to treat uncooperative/violent patients" ($p = 0.031$) (Table 1). Most postgraduates agreed with these statements, while most interns disagreed. Although a higher proportion of postgraduates agreed with the statements, there were no significant differences in the opinion regarding the statement "If the law allows abortion, doctors cannot refuse to do abortions" with 70.1 % of postgraduates and 68.0 % of interns disagreeing with the statement.

Table 1. Attitude on certain issues of medical ethics by education/designation

ISSUES	EDUCATION/ DESIGNATION	DISAGREE NO (%)	AGREE NO (%)	CHI-SQUARE VALUE	P-VALUE
Q11: Doctors know the best irrespective of patients' opinion	INTERN	59 (47.2)	62 (49.6)	1.096	0.578
	POST GRADUATION	61 (44.5)	68 (49.6)		
Q12: Patient should always be informed of wrongdoing by anyone involved in their treatment	INTERN	63 (50.4)	59 (47.2)	7.630	0.022**
	POST GRADUATION	46 (33.6)	87 (63.5)		

Continue....

Q13: Close relatives should always be told of the patient's condition	INTERN POST GRADUATION	1 (0.8) 2 (1.5)	124 (99.2) 130 (94.9)	3.268	0.118
Q14: Children should never be treated without the parent's consent	INTERN POST GRADUATION	18 (14.4) 9 (6.6)	106 (84.8) 124 (90.5)	0.917	0.079
Q15: Patient autonomy should always be adhered to	INTERN POST GRADUATION	9 (7.2) 11 (8.0)	104 (83.2) 114 (83.2)	0.109	0.947
Q16: Doctors should refuse to treat uncooperative/ violent patients	INTERN POST GRADUATION	20 (18.0) 17 (12.4)	98 (78.4) 110 (80.3)	5.671	0.031**
Q17: If the law allows abortion, doctors cannot refuse to do an abortion	INTERN POST GRADUATION	85 (68.0) 96 (70.1)	27 (21.8) 25 (18.2)	1.771	0.621

**Significant difference between interns and post graduates for q12 and q16 ($p < 0.05$).

Encountering an ethical dilemma once a week was reported most frequently, at 50.8 %. When asked whom they approach for help in case of such a problem, most respondents answered their immediate senior (41.7%), followed by the head of the department (37.6%). There was a statistically significant difference between the opinions of postgraduates and interns regarding the statements "I spend enough time to explain the nature, purpose, and possible consequences of treatment or procedure when obtaining informed consent from patients" (Table 2) and "I engage in Continuous Medical

Education (CME) activities" ($p = 0.001$). 95.1 % of the participants chose written consent as the ideal method of obtaining consent. When asked whether they report instances of professional misconduct to the medical council, 61.7 % of respondents answered "sometimes," while 24.2% answered "often." In the given situation, where a male doctor needs to examine a female patient and no female attendant is available, 40.8 % of respondents felt it is not ethically right to refuse the patient, 28.7 % believed it is right to refuse, and 30.6 % were unsure.

Table 2. Opinion of postgraduates and interns regarding the statements "I spend enough time to explain the nature, purpose, and possible consequences of treatment or procedure when obtaining informed consent from patients"

VARIABLE	PRACTICE OF ETHICS			CHI-VALUE	P-VALUE
	Very Often	Often	Sometimes		
Intern	47 (37.6%)	58 (46.4%)	20 (16%)	14.933	0.001**
Post Graduate	78 (56.9%)	53 (38.7%)	6 (4.4%)		

**Significant difference between interns and post-graduates for q20 ($p < 0.05$).

Discussion

Postgraduates (52.3 %) dominated the sample with females outnumbering the male doctors. A

significant portion (53.4%) of the respondents had not read the Code of Ethics. This is concerning, given that the code is fundamental to medical practice. Despite the majority (75.2 %) indicating that they

were taught about medical ethics during their undergraduate training, there is a notable disparity in the adequacy of this training. 47.4 % of respondents felt the curriculum was inadequate, while 47 % felt it was adequate. This suggests a divide in the perceived quality and depth of ethical education.

The study also shows that most respondents rely on their undergraduate curriculum (50.4 %) for ethical knowledge, with only a smaller portion acquiring it through work experience or other methods such as lectures and personal reading (15.1 %). This may be because 47.7 % of the participants were interns, with less clinical exposure compared to their postgraduate counterparts. We recommend that more continuing medical education (CME) and guest lectures including seminars should be conducted imparting knowledge of ethics and consequences of infamous conduct by medical practitioners. Only 41.2 % of the participants correctly answered the guidelines on required CME hours, 38.5 % knew the correct duration for maintaining indoor patient records, and 38.9 % knew of the period within which records should be produced upon request.

More than half (140, 53.4%) of the respondents lacked adequate knowledge of the code of ethics. Though statistical significance was lacking, knowledge of ethics was higher among the postgraduate respondents with 56.2% (77) respondents showing positive results. This may highlight the need for more integrated and continuous ethics education throughout medical training including compulsory AETCOM questions.

Postgraduates demonstrated higher knowledge and more favourable attitudes towards certain ethical practices compared to interns. The statistically significant differences observed in opinions about informing patients of wrongdoing ($p = 0.022$) and refusing to treat uncooperative patients ($p = 0.031$) highlight the changing perspectives on ethics with experience. However, no significant difference was

found regarding the ethical stance on abortion, with strong adherence to legal boundaries regardless of experience level.

The study also revealed an inclination towards a paternalistic attitude, with 49.6 % of respondents agreeing that doctors know best, irrespective of the patient's opinion. These findings are consistent with the study by Aacharya et al⁸. Over 80 % agreed with principles such as informing close relatives of a patient's condition, respecting patient autonomy, and obtaining parental consent for treating children. This suggests strong adherence to fundamental ethical principles, although it is in contrast with the paternalistic attitude observed.

The study highlights that encountering ethical dilemmas is a common experience, with 50.8% of respondents facing such issues weekly. In these situations, the majority seek guidance from their immediate senior followed by the head of the department. Similar findings have been reported by Aacharya et al, Hariharan et al¹¹, and Walrond et al¹². This pattern reflects the importance of mentorship and senior oversight in navigating such issues. The significant difference in opinion on obtaining informed consent and engagement in CME activities may reflect the varying levels of experience and responsibility between the postgraduates and interns. Postgraduates being further along in their training may be more accustomed to situations regarding informed consent and better understand its importance. They also recognize the importance of CME in staying updated with the latest advancements. Enhancing training in patient communication and a greater emphasis on the importance of CME could help bridge the gap between postgraduates and interns in these areas.

Conclusion

This study identified key areas for improvement in the understanding and application of medical ethics among the study participants. It revealed

that over 50 % of participants lacked adequate knowledge of the Code of Ethics, and a paternalistic attitude was evident among some respondents. These findings are surprising despite the introduction of the AETCOM module by the National Medical Commission in 2019.

An unexpected finding was the difference in ethical awareness between graduates and postgraduates, which may indicate that exposure alone may not be sufficient and that continuous structured training is required throughout their medical education. Everyone should have a strong consensus on fundamental ethical principles, reflecting a solid commitment towards their core moral values. It also gives an insight into the need for formal guidance in handling ethical dilemmas. This study emphasizes the need to strengthen medico-legal education and ethical decision-making, especially regarding consent, confidentiality, and documentation.

Limitations of the study include a relatively small sample size, single-institution design, and reliance on self-reported data, which may be subject to bias. Future research should focus on the long-term implications of ethical training modules on clinical practice. Additionally, comparative studies across government, semi-government, and private medical institutions could identify systemic weaknesses to improve ethical training.

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