

Study on Knowledge and Awareness on Medical Ethics and Infamous Conduct among Medical Students in a Medical College, Hyderabad

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How to cite this article: K Srinivasulu, Prodduku Aarti, Pokar Nikhil Patel et. al. Study on Knowledge and Awareness on Medical Ethics and Infamous Conduct among Medical Students in a Medical College, Hyderabad. Indian Journal of Forensic Medicine and Toxicology/Volume 19 No. 2, April - June 2025.

Abstract

This cross-sectional study aims to assess the knowledge and awareness of medical ethics, as well as infamous conduct, among medical students at a medical college in Hyderabad, Telangana, in light of advancements in medicine and research. The study group consisted of 150 participants, including 35 undergraduate medical students, 66 internees, and 49 postgraduate medical students. After obtaining informed consent, participants were evaluated using a pre-structured questionnaire, with their responses graded accordingly. The data were analyzed using MS Excel.

The results revealed a significant lack of knowledge and awareness regarding infamous conduct among medical students, including internees and postgraduates. However, internees demonstrated a better understanding of the basic principles of medical ethics compared to postgraduate students, who exhibited notably poor knowledge levels. The study highlights the urgent need for stricter curriculum implementation, continued medical education programs, and workshops to enhance the standards of medical ethics education.

Key words: Medical ethics, Infamous conduct, Medical students.

Introduction:

The term "ethics" is derived from the Greek word "ethos," meaning custom or character. In 1803, Thomas Percival, a physician and author, developed the first modern code of medical ethics, introducing the terms "medical ethics" and "medical jurisprudence."

In 1847, the American Medical Association adopted its first code of ethics, which was primarily based on Percival's work.

Unethical practices were commonly observed in the early 20th century, often involving exposing individuals to risks for the broader benefit of

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Submission date: Jan 2, 2025

Acceptance date: Feb 26, 2025

Published date: 28 March, 2025

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society. The Nuremberg Code (1947) became the first international set of ethical principles for clinical research. Later, in 1964, the World Medical Association¹ established the Declaration of Helsinki to provide ethical guidelines for medical research. Similarly, in 1982, the Indian Council of Medical Research (ICMR) released its policy statement outlining the ethical considerations in human research. Tom Beauchamp and James Childress later defined four fundamental principles of medical ethics: respect for autonomy, non-maleficence, beneficence, and justice².

The principle of "autonomy" refers to an individual's ability to make rational, independent decisions, emphasizing self-determination and freedom. This principle emerged as a response to the paternalistic approach traditionally seen in healthcare. "Beneficence" involves actions that prioritize the well-being of others, ensuring that decisions serve the best interests of patients and their families. "Non-maleficence," which is encapsulated by the phrase "do no harm," advises healthcare providers to avoid causing harm, even if they are unable to provide a benefit. This principle is closely associated with the Hippocratic Oath taken by physicians. The principle of "justice" involves the fair and unbiased distribution of healthcare resources to all individuals.

Despite these ethical guidelines, there have been notable instances of clinical trials conducted without participants' knowledge or consent, such as the Tuskegee Syphilis Study and the Thalidomide tragedy. In response to evolving medical research, the ICMR updated its guidelines in 2006.

The National Medical Commission's Code of Medical Ethics^{3,4,5} Regulations, 2002, requires all doctors to adhere to its rules and regulations. Any violations of the ethical code are considered infamous conduct and are subject to penal action. Additionally, the ICMR⁶ has established 12 general principles for biomedical researchers working with human subjects, with ethics committees ensuring that research upholds the safety, dignity, and well-being of participants.

Integrating medical ethics and humanities into the curriculum for medical undergraduates will help shape future doctors who are not only skilled in their profession but also grounded in ethical principles.

The aim and objective of this study is to assess the knowledge and awareness of medical ethics and infamous conduct among medical students. The study objective is to evaluate the level of awareness in different groups, illustrate how inadequate knowledge can lead to unethical behavior, and compare the findings with other similar studies conducted both in India and abroad. Ultimately, this research will help guide medical students to practice medicine ethically, minimizing the risk of legal issues arising from unethical conduct.

Material and Methods

A cross-sectional, prospective study was conducted to assess the knowledge and awareness of medical ethics and infamous conduct among medical students at a medical college in Hyderabad, Telangana. The study included 150 participants, consisting of 35 final-year MBBS students, 66 internees, and 49 postgraduate students, regardless of gender. The study was conducted from September 1, 2022, to August 31, 2023. Informed consent was obtained from all participants prior to their inclusion in the study, with the anonymity of participants maintained throughout.

A questionnaire was developed based on the principles of medical ethics and infamous conduct as outlined in the National Medical Commission's *Professional Conduct, Etiquette, and Ethics Regulations, 2002*. The key components covered in the questionnaire were:

- Respect for autonomy, Non-maleficence, Beneficence and Justice.
- Professional secrecy, Informed consent
- Association with pharmaceutical and manufacturing companies
- Dichotomy, covering, and advertisement
- Addiction, alcohol use, and improper conduct with patients

Each component of the questionnaire was evaluated by grading participants' knowledge and awareness as poor, fair, good, or excellent. Data was collected for all responses and analyzed statistically using MS Excel 2019.

Results

Cross sectional prospective study on knowledge and awareness on medical ethics and infamous conduct among Medical students was conducted in a

Medical college, Hyderabad, Telangana. 150 medical students were participated the study among 35 undergraduates, 66 internees and 49 post graduates.

Table 1: Study Results of each variables in grading in total population.

S No	Variable	Poor	Fair	Good	Excellent
1	Respect for Autonomy	66.6%	19.3%	13.3%	0.66%
2	Non Maleficence	66.66%	23.33%	9.3%	0.66%
3	Beneficence	60.6%	23.33%	14%	1.33%
4	Justice	46%	32%	18%	4%
5	Professional Secrecy	24%	41.3%	22%	12.66%
6	Informed Consent	12.66%	50.66%	26.66%	10%
7	Association with manufacturing firms and pharmaceutical companies	35.33%	43.33%	9.33%	12%
8	Dichotomy	47.33%	34.66%	13.33%	4.66%
9	Covering	35.33%	41.33%	20%	3.33%
10	Advertisement	30%	46%	20%	4%
11	Addiction and Alcohol	16.665	54%	22.66%	6.66%
12	Awareness on improper conduct with patient	33.33%	49.33%	14%	3.33%

Autonomy

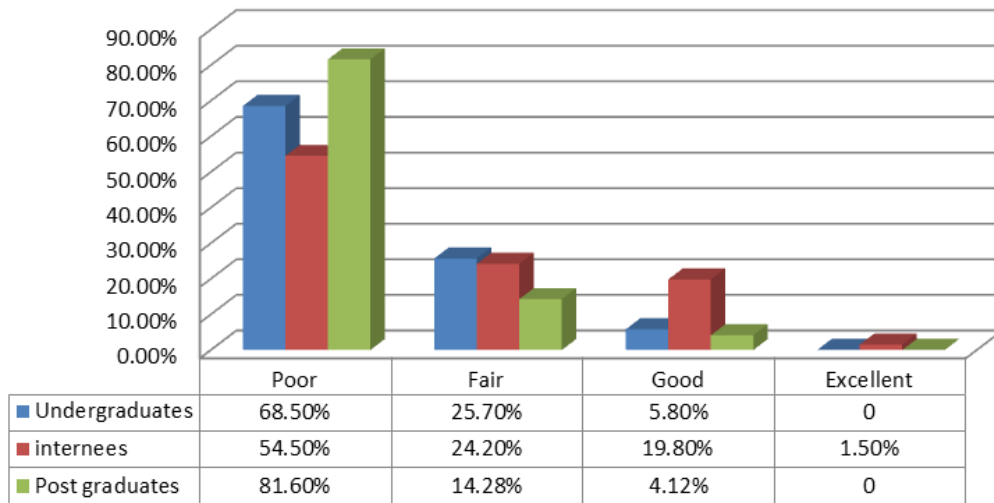


Fig 1: Showing the results of Autonomy among under graduates, Internees and post graduates.

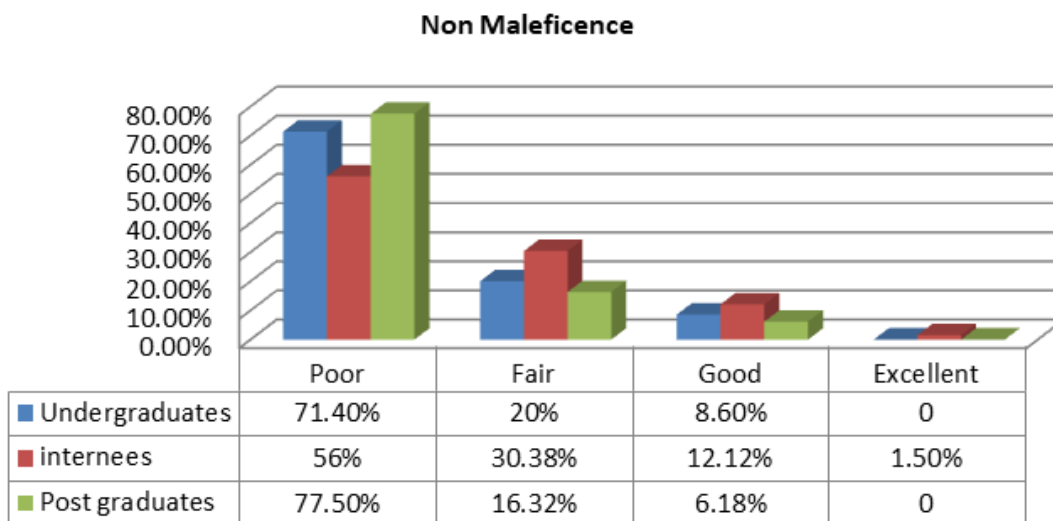


Fig 2: Showing the results of Non-maleficence among under graduates, Internees and post graduates.

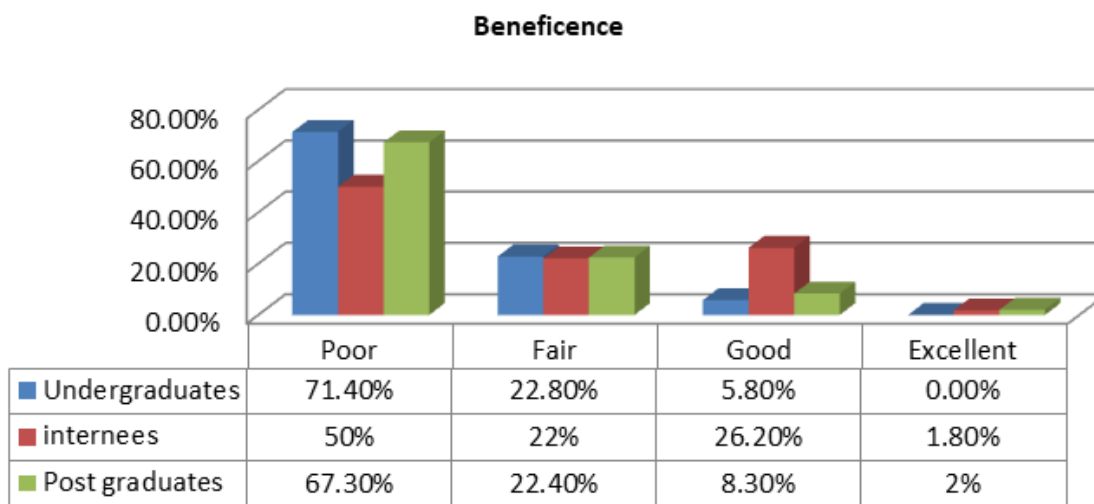


Fig 3: Showing the results of Beneficence among under graduates, Internees and post graduates.

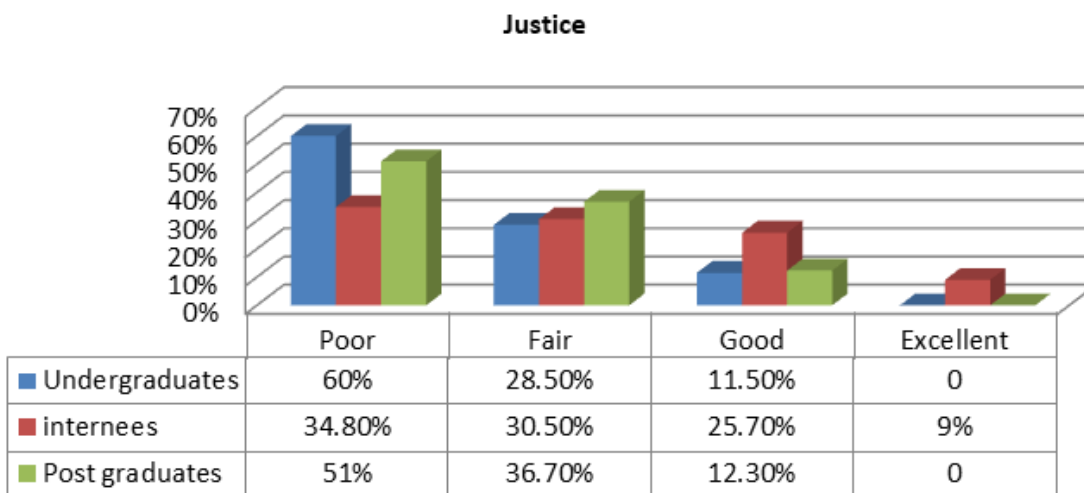


Fig 4: Showing the results of Justice among under graduates, Internees and post graduates.

Discussion

A cross-sectional study on medical ethics and infamous conduct was conducted among medical students (undergraduates, internees, and postgraduates) at a medical college in Hyderabad, Telangana. A total of 150 students, including both male and female participants, took part in the study. The study focused on four widely accepted principles of medical ethics: autonomy, non-maleficence, beneficence, and justice, as well as key components of infamous conduct.

Autonomy: The overall awareness of autonomy in the study population revealed that 66.6% had poor knowledge, 19.3% had fair knowledge, 20% demonstrated good knowledge, and only 1% exhibited excellent knowledge. Among undergraduates, 68.5% had poor knowledge, 25.7% had fair knowledge, 5.8% had good knowledge, and none were classified as excellent. In internees, 54.5% had poor knowledge, 24.2% had fair knowledge, 19.8% had good knowledge, and 1.5% had excellent knowledge. Among postgraduates, 81.6% were poor, 14.28% were fair, 4.12% were good, and none demonstrated excellent knowledge. Autonomy is a key principle in healthcare, underpinning informed consent, yet awareness was notably low, especially among postgraduates.

Non-maleficence: In terms of non-maleficence, 66.6% of the total study population demonstrated poor knowledge, 23.33% had fair knowledge, 9.3% had good knowledge, and only 0.66% had excellent knowledge. Among undergraduates, 71.4% had poor knowledge, 13.62% had good knowledge, and no students had excellent knowledge. In internees, 56% had poor knowledge, with 13.62% demonstrating good knowledge. Among postgraduates, 77.5% showed poor knowledge, 6.18% exhibited good knowledge, and no one had excellent knowledge. Postgraduates showed particularly poor awareness of non-maleficence.

Beneficence: Regarding beneficence, 60.6% of the study population had poor knowledge, 23.33% had fair knowledge, and 15.33% had good knowledge. Among undergraduates, 71.4% had poor knowledge, 5.8% demonstrated good knowledge, and none showed excellent knowledge. In internees, 50% had

poor knowledge, while 28% demonstrated good knowledge. Postgraduates again exhibited poor knowledge, with 67.3% having poor awareness, 10.3% demonstrating good knowledge, and no one showing excellent knowledge. Postgraduates appeared weakest in their understanding of beneficence.

Justice: Results related to justice revealed that 60% of undergraduates, 34.8% of internees, and 51% of postgraduates exhibited poor knowledge. In contrast, 34.7% of internees, 11.5% of undergraduates, and 12.3% of postgraduates demonstrated good knowledge. Internees showed relatively better knowledge in this area.

Overall, awareness of the basic principles of medical ethics was found to be poor among undergraduate and postgraduate medical students, with internees showing comparatively better knowledge.

Infamous Conduct: Knowledge and awareness of infamous conduct were also found to be lacking in the study population. Professional secrecy was well understood by 34.66%, association with pharmaceutical companies by 21.33%, dichotomy by 17.99%, covering by 23.33%, advertising by 24%, treating under the influence of alcohol by 29.32%, and improper conduct with patients by 17.33%. Across all components of infamous conduct, over 60% of participants had poor or fair knowledge.

The findings of this study align with similar research conducted in a medical college⁷ in Coimbatore, Tamil Nadu, which also reported low knowledge and awareness regarding medical ethics among medical students.

Conclusion

The study results indicate that the majority of medical students possess poor to fair knowledge of the basic principles of bioethics and infamous conduct. Postgraduate students, in particular, demonstrated a concerning lack of awareness and understanding of the core ethical principles, while internees showed relatively better knowledge. These findings highlight a significant gap in the education of medical ethics at various stages of medical training.

The results emphasize the urgent need for stricter implementation of medical ethics curricula at the undergraduate level. Furthermore, there is a critical need for enhanced training programs, including workshops, conferences, and continued education initiatives, to underscore the importance of ethical practice, particularly at the postgraduate level. Addressing these deficiencies will be essential in fostering a generation of healthcare professionals who are not only technically proficient but also grounded in ethical principles, ensuring the provision of ethical and compassionate care to patients.

Source of funds: Self.

Conflict of interest: Nil,

Ethical clearance: Yes, obtained from institutional ethics committee Reference No: MRIMS-DHR-IEC-12/2022.

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