Journal of Cardiovascular Disease Research

ISSN: 0975-3583,0976-2833 VOL 17, ISSUE 4, 2026

KNOWLEDGE AND ATTITUDE REGARDING MEDICAL ETHICS AMONG FIRST YEAR UNDERGRADUATE MEDICAL STUDENTS IN A TERTIARY CARE HOSPITAL, KAKINADA.

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INTRODUCTION

Ethics is the study of morality – careful and systematic analysis of moral decisions and behaviours and practising these decisions. Education on Ethics helps students to understand moral principles involved in patient care

AIM:

The aim of the study was to assess the current status of knowledge and attitude regarding medical ethics among first year medical students

MATERIALS AND METHODS

It is a prospective cross sectional pre-validated questionnaire based study, created using Google forms consisting of 10 questions (5- Knowledge, 5- Attitude) conducted among first year medical students of Rangaraya medical college, kakinada after obtaining permission from ethical committee and written informed consent from students. A total of 250 students were enrolled and instructed to fill the Google forms. 202 responded and the filled forms were analysed

RESULTS:

The majority of students demonstrated good basic knowledge of medical ethics, with 92.6% correctly identifying ethics as moral principles and 92.1% recognizing the Hippocratic oath. Awareness of informed consent 73.8% and non-maleficence 82.7% was satisfactory.

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However, limited knowledge was observed regarding the Nuremberg Code (49%) and confidentiality-related principles, with notable confusion between veracity and confidentiality (44.1%). Attitudinal responses were predominantly positive: 92.1% opposed accepting commissions for referrals, 85.1% supported maintaining patient confidentiality, and 90.1% acknowledged the need for consent beyond surgical procedures. Ethical dilemmas related to distributive justice elicited mixed responses.

CONCLUSION

Teaching ethics from first year helps students to strengthen ethical reasoning and judgement in decision making while treating patients. There is need for more educational programmes for improvement of knowledge and attitude regarding medical ethics among medical students

Keywords:
Attitude , ethics and communication, consent, curriculum, medical students.

INTRODUCTION

Medical ethics is a fundamental component of professional medical practice and provides a moral framework for clinical decision-making. It encompasses core principles such as autonomy, beneficence, non-maleficence, justice, confidentiality, and informed consent, which are essential for ensuring patient safety, trust and professionalism. In the context of rapidly advancing medical technology, increased patient awareness, and growing medico-legal challenges, adherence to ethical principles has become increasingly important in modern healthcare. Beauchamp and Childress et al..[1]

Several studies conducted worldwide have demonstrated variability in the knowledge, attitude, and practice of medical ethics among healthcare professionals and students. Hariharan et al. [2] highlighted significant gaps in ethical awareness among healthcare providers, emphasizing the need for structured ethics education early in medical training. Similarly, Goldie et al. reported that formal ethics teaching during undergraduate education improves ethical reasoning and prepares students to manage complex clinical dilemmas.[3]

In India, the traditional medical curriculum placed limited emphasis on ethics, relying largely on informal role modelling. However, studies by Chatterjee et al. and Mishra et al. have shown inconsistent understanding of ethical principles among undergraduate medical students, pointing towards deficiencies in conventional teaching approaches. Bhojani et al. further stressed that ethical competence cannot be acquired passively and requires systematic, competency-based instructions [4]

To address these concerns, the National Medical Commission introduced the Attitude, Ethics, and Communication (AETCOM) module as part of the Competency-Based Medical Education curriculum in 2019. This longitudinal program aims to inculcate ethical values, professional behavior, and effective communication skills throughout undergraduate training.Early exposure is particularly crucial, as first-year medical students are in the formative phase of professional identity development. Assessing their baseline knowledge and attitude towards medical ethics is therefore essential to identify gaps and strengthen ethics in medical education.

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Results:

Q1: Ethics refers to ; A large majority 92.6% of the students correctly identified ethics as "moral principles."This reflects a strong foundational understanding of the concept of ethics.

Only a small minority selected incorrect options such as laws or policies. Overall, the respondents showed good basic conceptual clarity on ethics.

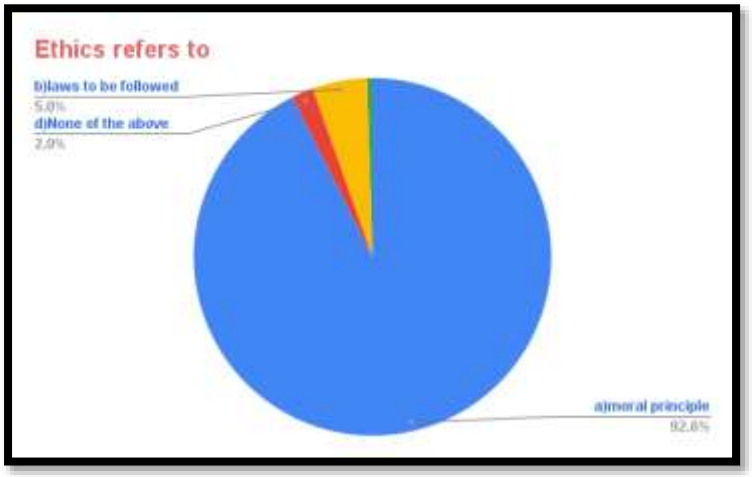

Figure :1 Distribution of responses to the definition of ethics among first-year medical students

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Q2. The Nuremberg code deals with legal conduct of



Figure :2 Distribution of responses regarding knowledge of the Nuremberg Code among first-year medical students.

Less than half (49%) of the students correctly chose "experiments done on humans." The remaining responses were scattered among other incorrect options. This shows limited awareness about international ethical codes in medical research. There appears to be a need for greater emphasis on historical ethics regulations

Q3. Considering the welfare of the patient comes under

About 56.9% of students correctly answered "Beneficence." A considerable proportion selected other principles, showing partial confusion. Although more than half knew the right principle, the accuracy is moderate. Strengthening understanding of core ethical principles is recommended.

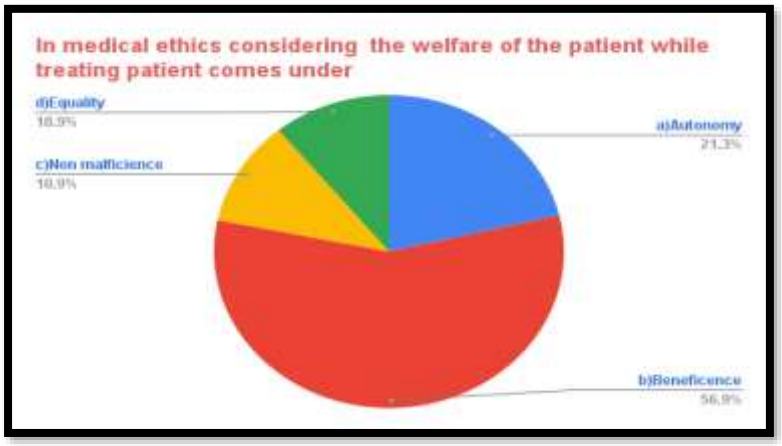

Figure*: 3 *Distribution of responses regarding identification of the principle of beneficence among first-year medical students.

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Q4. Consent or permission taken from a patient is called

A large majority (73.8%) correctly chose "Informed consent." This indicates fairly good awareness regarding patient rights and autonomy. A smaller group chose wrong options, showing minor misconceptions. Overall, knowledge about informed consent was satisfactory.

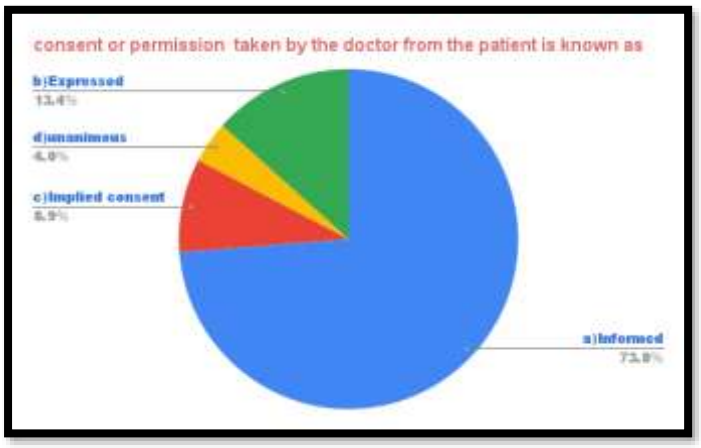

Figure :4 Distribution of responses regarding awareness of informed consent among first-year medical students.

Q5. Doing no harm to the patient comes under

Most respondents (82.7%) correctly identified it as "Non-maleficence." This shows strong understanding of the principle of avoiding harm. Only a small fraction selected incorrect options. This suggests good knowledge about this core ethical concept.

Q6. Respect for privacy and confidentiality comes under

Only 44.1% of respondents selected "veracity," which is actually incorrect. This indicates major confusion between confidentiality and truthfulness. A large number failed to recognize confidentiality as a core ethical duty. This represents a significant knowledge gap needing attention.

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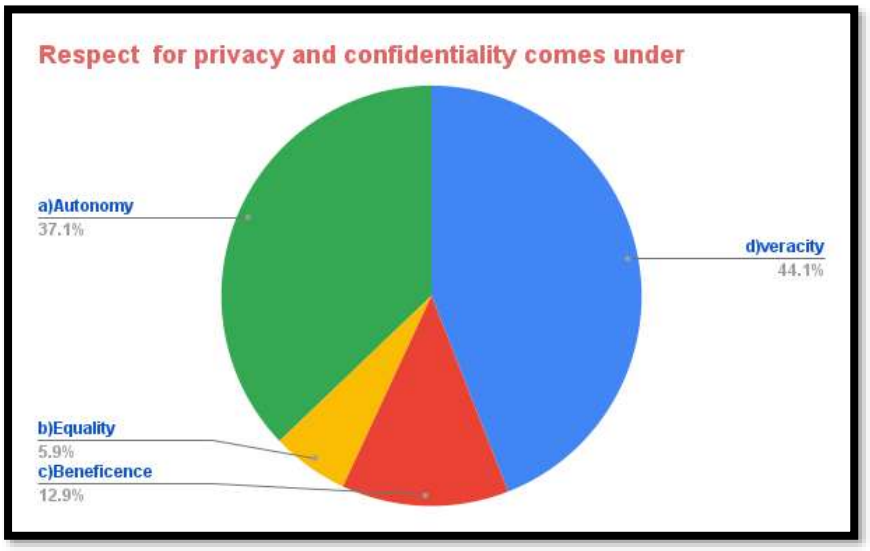

Figure: 5 Distribution of Responses Regarding Awareness of Privacy and Confidentiality Principles among First-Year Medical Students

Q7. The oath doctors swear after qualifying is

A very high percentage (92.1%) chose "Hippocratic oath." This shows excellent awareness of professional commitment. Only a few chose other options, indicating minimal confusion. Overall, students have strong knowledge of this traditional ethical pledge.

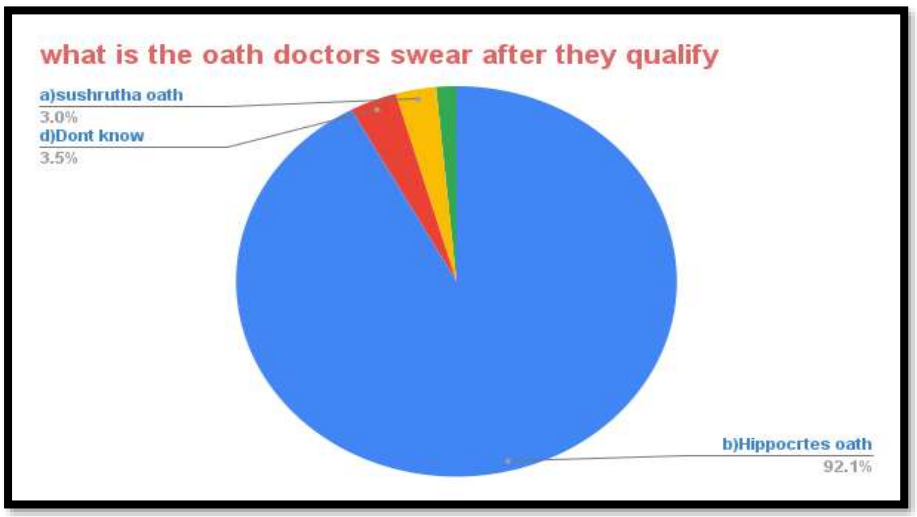

Figure :6 Distribution of Responses: Awareness of Professional Ethical Pledges among first-year medical students

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Q8. Doctors taking commission/bonus while referring patients

An overwhelming 92.1% of students disagreed with this practice. This indicates a strong ethical stance against monetary inducements. Only a few students considered it acceptable. Overall, the attitude towards financial integrity is highly positive.

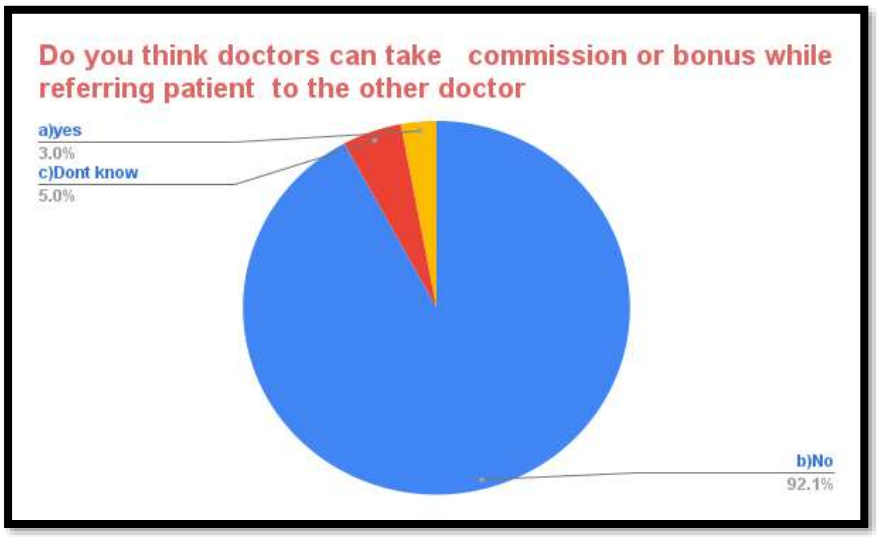

Figure :7 Distribution of Responses: Ethical Stance on Referral Commission Awareness among first year medical students.

Q9. Confidentiality should be abandoned in modern care

Most respondents (85.1%) disagreed with this statement. This shows that students value maintaining patient confidentiality. Only a small minority supported abandoning it. This reflects a positive ethical attitude towards privacy.

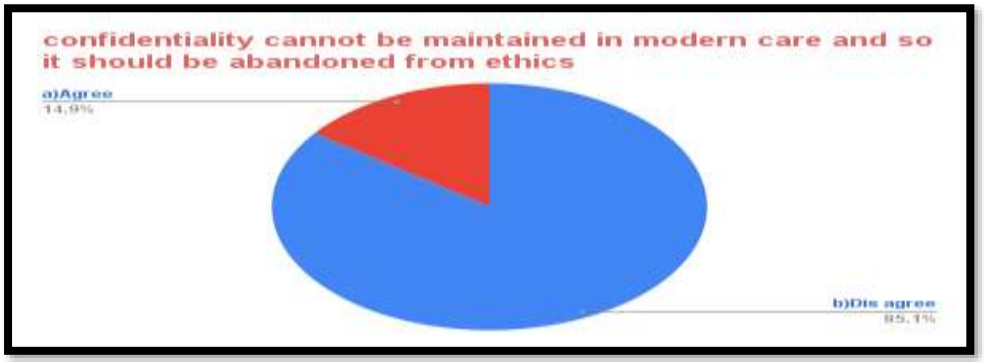

Figure : 8 Distribution of Responses: Commitment to Ethical Confidentiality Awareness among first-year medical students

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Q10. Consent is required only for operations and not lab/medications

A majority (90.1%) disagreed with this misconception. This shows students recognize the need for consent in all interventions. Very few supported the statement, indicating good awareness. This represents a strong ethical understanding of patient rights.

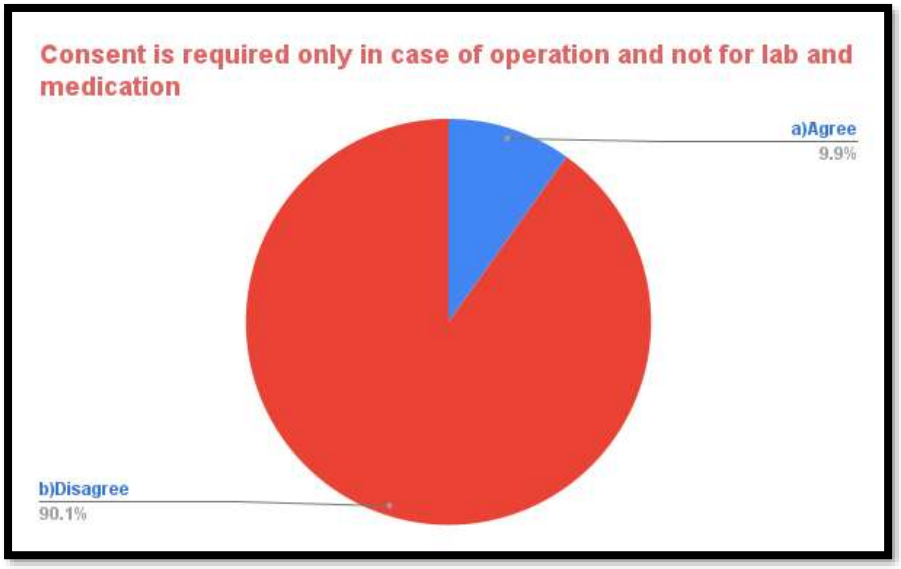

Figure : 9 Distribution of Responses: Scope of Informed Consent among first-year medical students

Q11. Charging rich patients more to treat the poor

Responses were divided, with 55% agreeing and 45% disagreeing. This shows uncertainty and mixed opinions on this ethical dilemma. Students appear conflicted between fairness and social justice. Further discussion on equity and ethics could clarify this issue.

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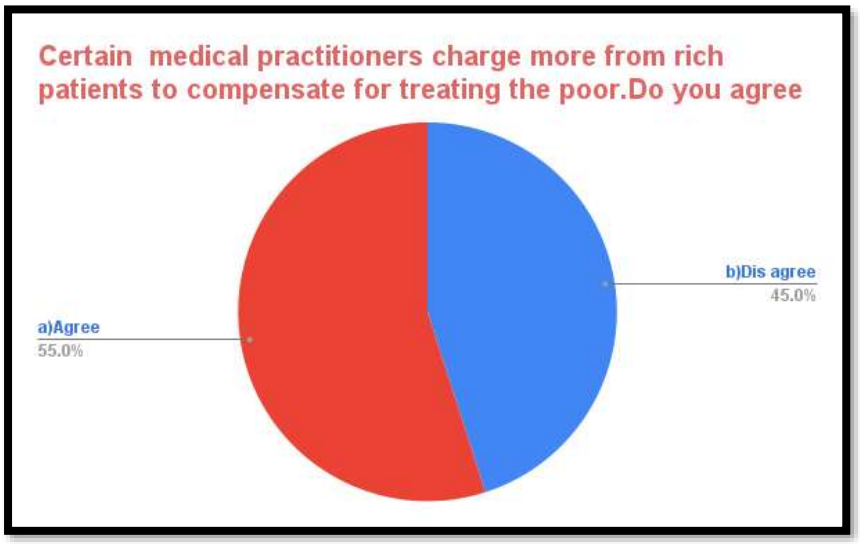

Figure: 10 Distribution of Responses: Equity vs. Equality in Healthcare Pricing among first-year medical students

Q12. Male doctor refusing to examine female without female attendant

A large majority (87.1%) disagreed to examine female patient without female attendant. This shows awareness regarding patient examination. This reflects a positive attitude towards the examination of the patient .

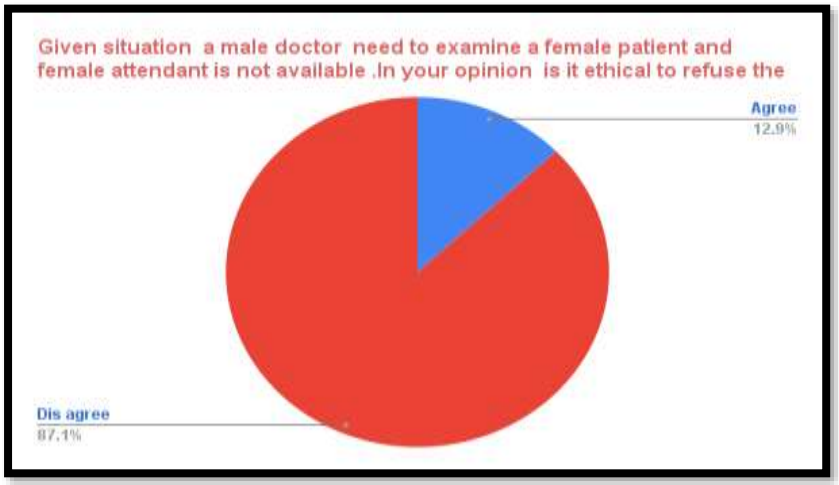

Figure: 11 Distribution of Responses: Duty of Care vs. Professional Barriers among first-year medical students

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Discussion

The present study evaluated the knowledge and attitude regarding medical ethics among first-year undergraduate medical students and demonstrated an overall satisfactory baseline awareness, accompanied by a predominantly positive ethical attitude. Similar observations have been reported in studies from different regions of India and across globally , suggesting that medical students often enter formal training with an inherent sense of ethical responsibility and moral reasoning shaped by prior social and educational influences Patenaude et al.; Roberts et al This early ethical orientation provides a valuable foundation upon which structured ethics education can be built . [5]

Adequate understanding of fundamental ethical concepts such as informed consent and non-maleficence observed in the present study .Similarly, studies by Anupama et al.have reported good baseline knowledge of autonomy and consent among first-year students. However, limited awareness of historical ethical frameworks such as the Nuremberg Code identified in this study has also been documented by Jindal et al., and Muzumdar et al., indicating that traditional ethics teaching often under emphasizes the historical evolution of medical ethics and its relevance to contemporary practice. [6,7,8]

Confusion between closely related ethical principles—particularly beneficence, non-maleficence, autonomy, and confidentiality—noted in the present study has been similarly described by Eckles et al. and Wear et al., who emphasized that while students may recognize ethical terminology, that they frequently struggle to apply these principles accurately in practical or contextual scenarios. [9,10]

This conceptual overlap highlights a well-recognized gap between theoretical knowledge and applied ethical reasoning, reinforcing the need for integrating ethics education with clinical case discussions, simulated scenarios, and reflective exercises rather than relying solely on didactic instructions (Branch et al.; Goldie et al.).[11,12]

The positive attitude towards patient confidentiality and the strong rejection of unethical financial practices such as accepting commissions or referral bonuses observed in this study are encouraging. Comparable findings have been reported by Roberts et al., Jagsi et al., who demonstrated that medical students often exhibit strong ethical attitudes despite variability in formal ethical knowledge. These findings suggest that professional values such as honesty and ethical responsibility. [13,14]

However, ethical dilemmas related to distributive justice—such as differential charging of patients based on socioeconomic status—elicited mixed responses in the present study. Similar ambiguity has been reported by Daniels et al. reflecting the complexity of ethical decision-making in resource-constrained healthcare systems. Such dilemmas underscore the tension between principles of equity, fairness, and social justice, and highlight the need for guided ethical discourse to help students navigate morally challenging the real-world situations [15]

Previous studies by Jagsi et al., Wear et al., and Goldie et al. have demonstrated that early exposure to structured, longitudinal ethics curriculam significantly enhances ethical sensitivity, professionalism, and moral reasoning over time. Furthermore, role modelling, mentoring, and reflective practice have been identified as critical components in reinforcing

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ethical behaviour among medical students (Branch et al.;Cruess et al.). The findings of the present study strongly reinforce the need for a comprehensive, integrated ethics curriculum beginning in the first year of medical training to strengthen ethical competence and professional identity .[16,17]

Conclusion:

This study highlights that first-year medical students possess a fair baseline knowledge of medical ethics and demonstrate commendable attitude toward patient rights, confidentiality, and professional integrity. However gaps in understanding historical frameworks, differentiating ethical principles, and applying them to real-life scenarios were evident. Integrating interactive teaching, case-based discussions, and reflective learning early in the medical curriculum will strengthen students ethical reasoning and to better prepare them for ethical and empathy based clinical practice.

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