

ORIGINAL ARTICLE

Assessing Awareness and Attitude of Indian Medical Students Towards Privacy and Confidentiality in Medical Practice

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ABSTRACT

Background: Privacy and confidentiality are basic ethical values of medical practice. Maintaining patient trust and professional ethics requires that aspiring healthcare workers comprehend and adhere to these values. **Objective:** To assess the awareness and attitude of medical students regarding patient confidentiality and privacy in medical practice. **Methods:** This cross-sectional, descriptive study was conducted at NKP Salve Institute of Medical Sciences & Research Centre and Lata Mangeshkar Hospital, Nagpur of Maharashtra state in India, from July to December of 2024. The study population consisted of second and third year undergraduate medical students enrolled in the institute. A convenience sampling method was used, where students were invited to participate during their class hours. Medical students who consented and willing to participate were included in this study. A pre-tested, structured questionnaire was validated and used for data collection, which consisted of two sections: knowledge and attitude, on a 5 point Likert scale (as 1=strongly disagree to 5=strongly agree). **Results:** We surveyed 398 second and third-year undergraduate medical students, with 344 completing the questionnaire, resulting in a response rate of 86.43%. Of the respondents, 258(75%) believed that an implied term of the contract between a doctor and a patient constitutes professional secrecy. Additionally, 223(64.82%) students agreed that discussing a patient's findings with third person without consent constitutes a breach of professional secrecy. A total of 226(65.69%) students agreed that a patient's confidentiality may be breached, if the disease is contagious. Furthermore, 209(60.75%) students agreed that a doctor is legally permitted to "break" medical confidentiality, if ordered by a judge or court. 219(63.66%) students affirmed that patients are entitled to privacy and confidentiality. However, 116(33.72%) students believed that a doctor can discuss a patient's condition with colleagues during work breaks. **Conclusion:** We observed that the majority of medical students demonstrated a basic awareness of privacy and confidentiality in medical practice along with positive attitude. In spite of basic awareness and positive attitude among medical students, they still require more theoretical education as well as clinically oriented ethical training.

Keywords: Privacy, confidentiality, medical practice, awareness, attitude, medical students

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INTRODUCTION

Enshrined in international professional rules and regulatory frameworks, privacy and confidentiality of patient are basic components of medical ethics. Sincere communication between patients and healthcare providers is made possible by these values, which respect patient's autonomy and promote trust. Confidentiality and privacy are highly valued in codes of ethics accepted by a

number of medical societies and organizations.¹⁻³ The need to balance medical students' behavioral and intellectual skills has also been underlined by the World Federation for Medical Education (WFME).⁴

Encouraging patients to appropriately share their knowledge is crucial since keeping patient secrets fosters more trust and confidence between the patient and the doctor as well as the efficacy and efficiency of medical interventions and treatment

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procedures. However, maintaining patient confidentiality is not always a given; in some situations, doctors may be obliged to disregard patient confidentiality. Some nations have defined the situation-relevant situations that can qualify for the confidentiality exception in order to avoid subjectivity.^{5,6} Keeping in mind that the doctor promotes physician-patient relationships and supports confidentiality, the patient shares all of their concerns with the doctor.

In every medical interaction, doctors must reassure patients that their information will be kept private and recognize that disclosing a patient's secrets compromises their trust. Because patient privacy is so sensitive in the medical and health professions, doctors must be well-versed on the associated issues, laws, and confidentiality standards of every nation.^{5,6}

Patients have the right to expect a trustworthy doctor-patient relationship, which depends on the confidentiality of their secrets. Patients' secrets must be kept private for several reasons, such as preserving the doctor-patient relationship of trust and confidence, urging patients to seek treatment from a doctor or health facility, and disclosing important information that makes treatment easier. By maintaining confidentiality and privacy, patients are more likely to comply, their rights are upheld, and social, political, and economic discrimination based on their health status is avoided.⁴⁻⁶ Due to increasing use of electronic health records, social media, and artificial intelligence in healthcare, the challenges to maintaining confidentiality have multiplied.

The notion of privacy and confidentiality as part of medical ethics and professionalism is taught to the medical students throughout their education and training in undergraduate and postgraduate curriculum specifically under "Forensic Medicine & Toxicology" in MBBS programme under Faculty of Medicine in most of the countries in South Asia.⁷ Medical students, as future physicians, must not only understand these principles theoretically but also learn to apply them effectively in complex and evolving clinical environments. Therefore, before medical students start practicing autonomously, it is vital to evaluate their awareness and attitude regarding patient confidentiality and privacy. Given the significance of the issue, this study aims to assess the awareness and attitude of medical students

regarding patient confidentiality and privacy in medical practice.

METHODS

This cross-sectional, descriptive study was conducted at NKP Salve Institute of Medical Sciences & Research Centre and Lata Mangeshkar Hospital, Nagpur, India, from July to December of 2024. The study population consisted of second and third year undergraduate medical students enrolled in the institute. A convenience sampling method was used, where students were invited to participate during their class hours. Medical students who consented and willing to participate were included in this study. We approached 398 medical students and 344 voluntarily completed the questionnaire.

A pre-tested, structured questionnaire was validated and used for data collection, which consisted of two sections: knowledge and attitude, on a 5 point Likert scale (Likert scale: 1 to 5, as 1=strongly disagree to 5=strongly agree). A pre-test of the questionnaire was conducted with a small group of students (n=20) to assess the clarity and comprehensibility of the questions. Based on the feedback, minor modifications were made to improve the instrument. After explaining rationale of the study to the students, informed consent was obtained and questionnaires were distributed.

The data collected by using validated questionnaire was entered, tabulated and analyzed for frequency and percentage using MS-Excel sheet.

RESULTS

We surveyed 398 second and third-year undergraduate medical students, with 344 completing the questionnaire, resulting in a response rate of 86.43%. Of the respondents, 258(75%) believed that an implied term of the contract between a doctor and a patient constitutes professional secrecy. Additionally, 223(64.82%) students agreed that discussing a patient's findings with third person without consent constitutes a breach of professional secrecy. A total of 226(65.69%) students agreed that a patient's confidentiality may be breached, if the disease is contagious. Furthermore, 209(60.75%) students agreed that a doctor is legally permitted to "break" medical confidentiality, if ordered by a judge or court. 219(63.66%) students affirmed

that patients are entitled to privacy and confidentiality. However, 116(33.72%) students believed that a doctor can discuss a patient's condition with colleagues during work breaks (refer to the tables 1 & 2).

Table 1: Awareness regarding privacy and confidentiality among medical students

Sl. No.	Questions	Responses				
		Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
1	Implied term of contract between doctor and patient constitutes professional secrecy	16(4.65%)	12(3.49%)	58(16.86%)	79(22.97%)	179(52.03%)
2	Doctor should not disclose patient's findings with third party (such as insurance companies) without patient's consent	21(6.10%)	31(9.01%)	75(21.80%)	99(28.78%)	118(34.30%)
3	For minor patients, sharing findings with parents or guardians results in a violation of professional secrecy	89(25.87 %)	64(18.60%)	80(23.26%)	52(15.12%)	59(17.15%)
4	Discussing a patient's findings with their spouse or friends without their consent constitutes a violation of professional secrecy	17(4.94%)	35(10.17%)	69(20.06%)	102(29.65%)	121(35.17%)
5	During clinical teaching, it is important to maintain privacy for intimate (vaginal, rectal) examination of the patient	12(3.49%)	15(4.36%)	59(17.15%)	63(18.31%)	195(56.69%)
6	Privacy during intimate (vaginal, rectal) examination should also be maintained for anaesthetised or sedated patients	11(3.19%)	10(2.90%)	78(22.67%)	78(22.67%)	167(48.55%)
7	Patients' confidentiality to be breached if the disease is contagious	19(5.52%)	29(8.43%)	70(20.35%)	95(27.61%)	131(38.08%)
8	Doctor is legally allowed to "break" medical secrecy regarding patient if asked by the judge or court	18(5.23%)	24(6.98%)	93(27.03%)	101(29.36%)	108(31.39%)
9	Doctor should not disclose anything to master without servant's consent even if the master is paying fees	14(4.07%)	24(6.98%)	93(27.03%)	89(25.87%)	124(36.05%)
10	In medical journal, a doctor must not reveal the identity of patient without consent	8(2.33%)	16(4.65%)	85(24.71%)	93(27.03%)	142(41.28%)
11	Violation of professional secrecy constitutes professional misconduct by a doctor	7(2.03%)	18(5.23%)	73(21.22%)	92(26.75%)	154(44.77%)

Table 2: Attitude regarding privacy and confidentiality among medical students

Sl. No.	Questions	Responses				
		Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
1	Without confidentiality patient will not reveal anything to doctor	10(2.91%)	19(5.52%)	68(19.77%)	92(26.74%)	155(45.06%)
2	Patients are entitled to privacy and confidentiality	13(3.78%)	23(6.69%)	89(25.87%)	94(27.33%)	125(36.34%)
3	Doctor can discuss patient's conditions with colleagues during work breaks	87(25.29%)	61(17.73%)	80(23.26%)	54(15.69%)	62(18.02%)
4	Confidentiality cannot be kept in modern care and should be abandoned	83(24.13%)	63(18.31%)	82(23.84%)	59(17.15%)	57(16.57%)
5	If patient is major, doctor can share any information with parents without patient's consent	18(5.23%)	31(9.01%)	79(22.97%)	94(27.32%)	122(35.47%)
6	Close relatives must always be told about the patient's condition	80(23.26%)	64(18.60%)	84(24.42%)	55(15.98%)	61(17.73%)

DISCUSSION

The present study aimed to assess the awareness and attitude of medical students regarding privacy and confidentiality in medical practice – a cornerstone of ethical and professional medical behavior. The findings reveal several critical insights that underscore both strengths and gaps in current medical education. We noticed that the majority (75%) of students agreed that professional confidentiality is an implied term of the contract between doctor and patient.^{5,6,8} Our observation regarding sharing patient information with a third party without the patient's consent (63.08%) is in concordance with the findings of study done by Rajamohanam, Phansalkar & Kuruvila, in South India, among final-year medical students and interns.⁹ Additionally, 44.48% participants disagreed with the idea that disclosing patient information to parents or guardians of minor patients constitutes a breach of professional secrecy, which is consistent with the study done by Hariharan et al.¹⁰ 64.82% of students agreed that discussing patient findings with a spouse or

friends without consent constitutes a violation of professional confidentiality, which is similar to the findings of the study done by Jatana et al.¹¹ Another study done by Chatterjee & Sarkar, in West Bengal, India, reported that most participants agreed on the necessity of maintaining privacy during clinical teaching and for anesthetized or sedated patients, especially regarding intimate examinations,¹² which aligns with the results of our study. The findings regarding the breach of patient confidentiality in cases of contagious diseases and court orders are similar to those observed by Iswarya & Bhuvaneshwari among final-year medical students in Coimbatore, India.¹³ In our study, 61.92% of students agreed that a doctor should not disclose any information to the master without the servant's consent, even if the master is paying the fees, which aligns with the findings of the study done by Singh et al.¹⁴ Additionally, 68.31% of students agreed that when reporting a case in a medical journal, the doctor should not reveal the patient's identity, which is consistent with the study done by Jatana et al.¹¹

The majority of students (71.51%) agreed upon that

violation of professional secrecy is professional misconduct by doctors, which is in contradiction with Parmar et al., as they reported that 56% students disagreed with the notion.¹⁵ In our study, 71.80% students agreed upon that patient will not reveal anything to doctor without confidentiality and 63.66% students agreed upon that patients are entitled to privacy and confidentiality, which is in accordance with that of Jatana et al.¹¹ We observed that 43.02% of students disagreed with the idea that doctors can discuss a patient's condition with colleagues during work breaks, which contradicts the findings of the study done by Chatterjee & Sarkar.¹² Additionally, 42.44% of students disagreed with the statement that confidentiality cannot be maintained in modern healthcare and should be abandoned, a result that aligns with the study by Janakiram & Gardens, which was conducted among postgraduate students from two medical and two dental colleges in Kerala, India.¹⁶ In our study, the majority of students (62.79%) agreed with the idea that if a patient is an adult, a doctor can disclose information to the parents without the patient's consent, which is dissimilar to the findings of the study done by Parmar et al.¹⁵ Findings related to disclosure of patient's condition to their relatives (41.86%) are in concordance with the findings of previous researchers,^{9,10} however, others showed differing views on this matter.¹³⁻¹⁵

In general, most of the medical students showed a fundamental understanding of the concepts of confidentiality and privacy. The majority of participants, however, were unable to accurately identify circumstances that call for confidentiality, such as disclosing patient information to family

members only with the appropriate healthcare experts or without the patient's agreement. Despite this, medical students had a generally positive attitude toward confidentiality and privacy, and they strongly agreed that patient rights should be respected.

CONCLUSION

In the doctor-patient relationship, maintaining patient confidentiality is required by law apart from being a basic ethical principle. As future healthcare professionals, medical students must not only understand these principles but also develop the judgment to apply them correctly in a variety of clinical situations. To assure that aspiring physicians maintain the high ethical standards required in their field, focused education and continuous professional development is crucial.

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Ethical Approval: The study was approved by the Ethical Review Committee of NKP Salve Institute of Medical Sciences & Research Centre, Nagpur, Maharashtra, India.

Authors' Contribution: All the authors were equally involved in concept, design of the study, questionnaire formulation, data collection, compilation and analysis as well as manuscript preparation, critical review and final submission.

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