

Letter to the Editor



Artificial intelligence and ethical conflicts in healthcare

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Dear Editor,

In recent years, the integration of artificial intelligence (AI) in healthcare has evolved from theoretical concepts to real-world applications. This technology is rapidly becoming a fundamental component of modern healthcare, offering unparalleled capabilities in diagnosis, treatment planning, patient care, and healthcare management.¹ AI refers to the ability of machines to mimic human cognitive capabilities, such as learning from data and making informed judgments.² When AI is applied in healthcare, it assists professionals in making more informed decisions, enabling personalized, efficient, and accessible healthcare.³ This allows healthcare providers to balance quality improvement programs and patient needs, which are critical for patient safety, long-term health, and life-saving interventions.⁴

However, deploying AI technologies to manage vast amounts of data while ensuring security concerns such as integrity control, data confidentiality, authentication, and authorization remains a challenge. Additionally, achieving comprehensive outcomes across diverse populations is difficult, as medical data is often private and tailored to individual conditions.⁵ Thus, the use of this technology is accompanied by numerous ethical challenges and conflicts that require careful examination and attention. This letter examines the ethical conflicts associated with the use of AI in the healthcare domain, which include:

1. *Privacy and data security:* AI requires vast amounts of personal and sensitive patient data to function effectively. This raises concerns about maintaining privacy and ensuring data security. Misuse of this data could have serious consequences for patients.⁶
2. *Algorithmic bias:* AI algorithms may be trained on incomplete or non-diverse datasets, which can lead to racial, gender, or social biases. These biases can exacerbate discrimination in the delivery of healthcare services.⁷
3. *Accountability and transparency:* In cases of diagnostic or treatment errors caused by AI, determining

accountability can be challenging. Additionally, the transparency of how algorithms make decisions is often limited, which can undermine the trust of patients and healthcare professionals.⁸

4. *Impact on the doctor-patient relationship:* The use of AI may affect the traditional doctor-patient relationship. Patients might feel that human interaction and empathy in the treatment process have been diminished.⁹
5. *Equity in access to technology:* Access to advanced AI technologies may be limited in underserved areas or developing countries. This could exacerbate existing inequalities in access to healthcare services.¹⁰

Conclusion

AI has great potential to improve healthcare, but the ethical conflicts associated with it require serious attention. To fully exploit this technology, the following steps need to be taken: (1) Develop ethical rules and regulations for the use of AI in healthcare. (2) Increase data diversity to reduce algorithmic bias. (3) Train health professionals in the effective and ethical use of AI. (4) Increase transparency and accountability in AI decision-making.

By resolving these conflicts, AI can be used as a powerful and ethical tool in improving healthcare.

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Competing Interests

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