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The Healthcare Team in the Age of Artificial Intelligence: Digital Transformation in Healthcare Service

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Abstract

Artificial intelligence (AI) is supporting clinical decision-making processes in healthcare systems, personalizing patient care, and optimizing workflows. The aim of this narrative review is to examine the role of AI technologies in supporting physicians, nurses and physiotherapists, as well as to evaluate the barriers, ethical issues, and educational transformations associated with integration. Articles related to the topic were selected from Google Scholar, PubMed, and Scopus search databases using the keywords "Artificial intelligence, healthcare team, healthcare services, informatics," without any restrictions on publication year. Findings show that clinical decision support systems increase diagnostic accuracy and, through personalized treatment planning, enhance treatment efficacy. In nursing, AI-supported monitoring systems improve patient safety while reducing administrative burden; in physiotherapy, robotic devices, wearable sensors, and machine learning-based movement analysis support rehabilitation. AI-based health education requires new competencies such as health, data, and human literacy. Key barriers include lack of algorithmic transparency, data privacy concerns, bias, and legal uncertainty regarding accountability. In conclusion, AI functions as "augmented intelligence" that complements rather than replaces healthcare professionals. Effective integration requires transparent infrastructures, clear legal boundaries, workforce training, and human-centered practices. Healthcare teams utilizing these AI-supported systems can maximize patient health outcomes.

Keywords: Artificial intelligence, healthcare team, healthcare services, informatics.

Yapay Zekâ Çağında Sağlık Ekibi: Sağlık Hizmetlerinde Dijital Dönüşüm

Öz

Yapay zeka (YZ), sağlık sistemlerinde klinik karar verme süreçlerini desteklemekte, hasta bakımını kişiselleştirmekte ve iş akışlarını optimize etmektedir. Bu geleneksel derlemenin amacı, YZ teknolojilerinin hekimler, hemşireler ve fizyoterapistleri desteklemedeki rolünü incelemek, ayrıca entegrasyon sürecindeki engelleri, etik sorunları ve eğitimsel dönüşümleri değerlendirmektir. Yayımlanma yılı sınırlaması olmaksızın Google Akademik, PubMed ve Scopus arama tabanlarından "Artificial intelligence, healthcare team, healthcare services, informatics" anahtar kelimeleri kullanılarak konu ile ilişkili makaleler ele alınmıştır. Bulgular, klinik karar destek sistemlerinin tanı doğruluğunu artırdığını ve kişiye özel tedavi planlaması sayesinde tedavi etkinliğini yükselttiğini göstermektedir. Hemşirelikte YZ destekli izleme sistemleri hasta güvenliğini iyileştirirken idari yükü azaltmakta; fizyoterapide ise robotik cihazlar, giyilebilir sensörler ve makine öğrenimi tabanlı hareket analizi rehabilitasyonu desteklemektedir. YZ tabanlı sağlık eğitimleri, sağlık, veri ve insan okuryazarlığı gibi yeni yeterlilikler gerektirmektedir. Temel engeller arasında algoritma şeffaflığının olmaması, veri gizliliği endişeleri, önyargı ve sorumlulukla ilgili hukuki belirsizlik yer almaktadır. Sonuç olarak YZ, sağlık profesyonellerinin yerini almayan, onları tamamlayan bir "artırılmış

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zeka" işlevi görmektedir. Etkin bir entegrasyon için şeffaf altyapılar, net yasal sınırlar, iş gücü eğitimi ve insan merkezli uygulamalar gereklidir. Bu sistemleri kullanan sağlık ekipleri, hasta sağlık sonuçlarını maksimize edebilecektir.

Anahtar Sözcükler: Yapay zeka, sağlık ekibi, sağlık hizmetleri, bilişim.

Introduction

Artificial intelligence (AI), in general terms, is the ability of computer systems or machines designed to simulate human intelligence by performing tasks that would normally require human cognition, such as learning, reasoning, and problem-solving[1]. Today, AI is deeply rooted in finance, commerce, and science; for example, Amazon's product recommendation systems, transportation networks like Uber, and intelligent personal assistants like Siri or Alexa have become an integral part of life[2-5]. In healthcare, AI is having a revolutionary impact by leveraging the power of big data to support evidence-based clinical decision-making, personalize patient care, and digitally transform healthcare processes[4,6,7]. Current applications are beginning to permeate every aspect of healthcare, from medical image analysis and drug research to home management of chronic diseases and surgical robotics systems[4].

Advanced AI technologies and tools are being integrated into the healthcare ecosystem. These technologies include machine learning (ML), which makes predictions by identifying patterns in data, and deep learning (DL), which uses complex neural networks[2,4,8]. Another key component, natural language processing (NLP), has the ability to extract critical information by analyzing unstructured text data such as physician notes and laboratory reports[4,6]. In addition, robots that assist in surgical operations, exoskeletons used in rehabilitation processes, chatbots that interact with patients, and wearable health devices (WHDs) that continuously monitor vital signs are independent technological tools available to healthcare professionals[8,9]. These systems transform traditional "record and storage" systems into active "intelligence systems," providing healthcare teams with an advanced work infrastructure[4].

The outcomes of AI interventions in healthcare services are operational efficiency and team member performance indicators. The success of AI applications is measured by increased diagnostic accuracy, early detection of diseases (sepsis, cancer, etc.), and a reduction in medical error rates[2,6]. In addition, a significant process outcome is the reduction of administrative burden on healthcare personnel and the increase in time dedicated to direct patient care through the automation of routine tasks[2,4,6]. Furthermore, it includes lowering healthcare costs, improving patient satisfaction and clinical safety, and optimizing resource allocation (such as personnel and equipment planning). In fields such as physiotherapy and nursing, patient adherence to treatment and improvements in self-management skills are critical outcomes directly impacted by the use of AI[6,10].

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"Augmented intelligence" that complements human intelligence, rather than replacing it. AI's positioning as a partner in the field of intelligence lies in its ability to support the limited cognitive capacity of healthcare professionals by analyzing massive datasets[4,8,9]. AI enhances clinical effectiveness, safety, and accessibility, enabling value-based care[4,10]. In the future, healthcare professionals will have the opportunity to focus more on unique human skills such as empathy, persuasion, and complex case management, moving beyond routine and administrative tasks thanks to AI[6,9]. Given the speed of technological advancement, it is vital for the sustainability of modern healthcare systems that healthcare leaders and teams adapt to this transformation, gain data literacy, and integrate AI into clinical practice within an ethical framework[2,4,9,10].

This study is a narrative review that comprehensively examines the use of artificial intelligence technologies in healthcare services and the implications of this transformation for the healthcare team[1]. Google Scholar, PubMed, and Scopus search databases were used during the literature review process; articles were selected using the keywords “Artificial intelligence, healthcare team, healthcare services, informatics,” without any restrictions on publication year. Within the scope of the review, by focusing on the roles of physicians, nurses, and physiotherapists as the primary stakeholders of the healthcare team; the contributions of AI to these professional groups, the ethical and legal barriers encountered, and the requirements for educational transformation have been analyzed and synthesized[1,2].

Fundamentals of Artificial Intelligence Technologies and Their General Contribution to Health Care Services

Artificial intelligence refers to computer systems that simulate elements of human intelligence such as learning, reasoning, and problem-solving[4,11]. The evolution of AI in healthcare has accelerated thanks to increasing computing power, the availability of massive datasets, and improved algorithms[4,8]. Today, AI is making its impact felt in every aspect of healthcare[4,12-15]. The main AI technologies used in healthcare are:

Machine Learning (ML)

Machine Learning is defined as "the ability of a machine to mimic intelligent human behavior." An algorithm is trained to learn from data and then make decisions based on similar features or variables from new data. The intersection of various disciplines, particularly mathematics, statistics, and computer science, is a crucial component of data science required to implement various ML models. Despite the power of human intelligence, humans are prone to error due to their limited short-term memory[1]. The increase in data volume, coupled with the improved capacity of computers to analyze this data and develop various machine learning models, creates the possibility of supporting individuals' decision-making processes with rich contextual information by leveraging machine learning. Today, machine learning is beginning to be applied in many different medical fields, such as monitoring heart failure, clinical decision support systems, and medical imaging[1,4,16].

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Natural Language Processing (NLP)

NLP is a subfield of artificial intelligence that deals with the use of computers to process and interpret data in natural language. Applications of NLP include translation, information extraction, summarization, topic modeling, sentiment analysis, translating handwritten text to text and vice versa, and answering questions[17]. These skills improve decision-making by transforming vast medical literature and patient histories into concise summaries, reducing the burden of documentation and manual data entry for doctors and nurses[18]. Despite challenges such as model bias and implementation costs, NLP integration can provide personalized care, precision medicine, and operational efficiency to healthcare systems[18,19]. A study by Thakur et al. (2024) found that NLP successfully extracted valuable medical information from disorganized health data, improving diagnostic accuracy and accurately predicting treatment outcomes[20].

Deep Learning (DL)

DL involves using a neural network with many layers (deep structure) between input and output, and its greatest advantage is that it is data-driven, highly representative, and can automatically learn hierarchical features and perform feature extraction and classification on a single network. DL can be used to model or simulate an intelligent system or process using labeled training data. Recently, deep learning (DL) has been widely used in medical applications such as anatomical modeling, tumor detection, disease classification, computer-aided diagnosis, and surgical planning[21]. A study by Jin et al. (2023) concluded that deep learning has the potential not only to diagnose COVID-19 but also to assess disease progression and prognosis, suggest treatment plans, and assist federal governments in formulating intelligent steps to control and prevent the spread of the disease[22].

Specific Contributions to Healthcare Team Members

Medical and Clinical Decision Support Processes

Provide significant support to healthcare professionals in the early diagnosis of diseases, treatment planning, and patient management[23]. AI accelerates and refines physicians' diagnostic and treatment decisions. Studies have shown that AI algorithms can perform at the same level as humans, and in some cases even better, in the analysis of radiological images (CT, MRI, X-ray)[8,24]. Studies have proven that AI can perform better than radiologists in breast cancer screening[3,4]. AI-based algorithms offer strong support to healthcare professionals in the early diagnosis, treatment planning, and patient management of cardiovascular diseases; however, these systems are not the ultimate decision-makers, but rather auxiliary tools[23].

Nursing Services and Care Process

Nursing Services and Care Process has become a significant resource in clinical decision-making, patient monitoring, and workflow optimization[6]. The integration of AI solutions

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into nursing practice provides significant clinical and service gains. Thanks to AI-powered monitoring tools such as wearable technologies and real-time notification systems, nurses can detect subtle physiological changes, such as fever or pain signals, much earlier than traditional methods. This makes it possible to reduce complications, shorten hospital stays, and lower readmission rates. Indeed, numerous studies have shown that early warning algorithms enable clinical teams to react more quickly, improving patient safety and treatment outcomes. From a service perspective, AI-based automation of routine tasks such as scheduling, administrative record keeping, and predictive workload classification has enabled more efficient resource allocation. This increase in efficiency has resulted in a measurable decrease in burnout and a significant increase in job satisfaction among nurses. This is because nurses are now able to dedicate more time to direct patient care[25]. In recent years, innovative technologies such as artificial intelligence (AI) have revolutionized wound care by offering more effective and efficient solutions for acute and chronic injuries[26]. Mobile applications and image recognition systems can track the size and healing process of wounds, such as diabetic foot ulcers, with similar precision to a professional wound care nurse. Studies have shown that AI algorithms increase diagnostic accuracy, accelerate healing, reduce pain, and improve cost-effectiveness in wound care[27]. On the other hand, while AI can support documentation and diagnostic processes, its current limitations in relational, sensory, and adaptive aspects have raised concerns among nurses regarding its suitability for wound care in a home environment. Successful AI integration must account for the realities of nursing practice and enable technological tools to enhance the bodily, relational, and adaptive dimensions of wound care[28]. AI-based systems enable remote monitoring of patients with conditions such as atrial fibrillation and improve treatment adherence[6]. Clinical staff spend almost half their day on electronic health records and administrative tasks. This reduces the time spent directly with patients and increases burnout[29]. NLP systems allow nurses to dedicate more time to direct patient care by reducing the time spent on administrative tasks[10].

Physiotherapy and Rehabilitation Practices

Today, artificial intelligence technologies are used in multidisciplinary health research fields. Physiotherapy and Rehabilitation is one of these fields. AI is used to improve the patient care process by assisting physiotherapists in conducting comprehensive assessments, predicting patient performance, or making diagnoses[30]. Furthermore, research has revealed many more uses of artificial intelligence in medical and rehabilitation applications, such as problem-solving, X-ray diagnosis, planning treatment protocols, and physical manipulation of patients[10]. All these functions of artificial intelligence are fundamental elements of physiotherapy professional practice. Studies have shown that AI-supported applications can perform video analysis of gait in individuals with Parkinson's and osteoarthritis, automating the diagnosis of abnormalities in these patients[9,24]. Various studies have shown that AI-supported application tools can predict injury risks by calculating lower extremity joint angles[10,24]. AI-supported rehabilitation robots and exoskeletons are widely used in post-stroke rehabilitation or to assist individuals with physical disabilities in their daily activities,

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facilitating rehabilitation processes[8]. Furthermore, through wearable technologies, smartwatches, and inertial sensors, exercise compliance and performance of patients undergoing rehabilitation can be monitored with a high accuracy of 99.4%[9].

Artificial Intelligence Transformation in Health Education

The possibilities offered by artificial intelligence promise to overcome traditional educational models known for their rigid structures, enabling seamless lifelong learning and easy adaptation to rapidly changing healthcare environments[31]. Integrating AI into healthcare education not only improves the effectiveness and quality of education but also innovates the ways in which health-related knowledge is shared with others; ultimately, this equips current and future healthcare teams with the skills needed to address a wide range of health challenges[32]. The integration of AI into healthcare services also necessitates fundamental changes in the training of healthcare professionals. Healthcare professionals are now expected to possess three core literacies. These are data literacy, technical literacy, and human literacy[10]. Studies have shown that AI-powered chatbots in nursing and medical education can improve students' knowledge levels and clinical decision-making abilities more effectively than traditional methods[6]. Virtual reality (VR) and augmented reality (AR) allow medical students to learn anatomy without the need for cadavers or to experience complex surgical procedures without risk[8]. One of the transformative effects that AI brings to medical education is its ability to provide feedback and evaluation in real time. Traditional examination and evaluation methods are both time-consuming and do not always accurately reflect the student's true competencies. In contrast, AI-powered assessment tools provide more objective and faster feedback by instantly analyzing the student's performance[33]. This increases the student's learning effectiveness.

Barriers to Implementation, Ethical Issues, and Perceptions

Barriers to ımplementation, ethical ıssues, and perceptions of AI, its widespread adoption faces significant obstacles. Firstly, the ambiguity surrounding how algorithms arrive at decisions makes it difficult for physicians to trust the system[2]; secondly, the use of large datasets raises concerns about patients' privacy rights and the risk of cyberattacks[3]. Furthermore, the lack of diversity in training data can lead to AI producing erroneous or discriminatory results for specific demographic groups[2,4,7] while the question of who is responsible in the event of an error in an AI-assisted decision remains legally ambiguous[2]. The general perception of healthcare professionals is mixed; while many find AI useful, a large majority state that they do not fully understand its working principles[3], and the majority believe that AI will be a helpful tool rather than taking away their jobs[3,4]. However, while AI integration reduces workload, it also brings new risks such as the atrophy of clinical skills, leaving complex cases solely to doctors, employee alienation, and increased inequalities[29].

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Conclusion

Artificial intelligence (AI) is not a competitor replacing humans in healthcare, but rather an "augmented intelligence" partner that enhances the capabilities of professionals. Studies show that AI has the potential to increase efficiency, quality, and safety in a wide range of areas in clinics, from decision-making support to imaging, rehabilitation, and administrative management. However, AI development alone is not sufficient for this transformation; healthcare leaders and policymakers need to develop strategic plans and create a culture of innovation. One of the biggest obstacles to successfully implementing AI applications in the healthcare system is the lack of transparency in decision-making processes. Therefore, frameworks such as legal responsibility, accountability, and data privacy need to be clarified to ensure employee trust in the system. Furthermore, important factors such as standardization, data quality, and bias prevention need to be carefully managed. National-level strategies should prioritize and develop AI. These strategies are crucial for establishing a system that ensures all stakeholders benefit from this technology equally and safely.

Preparing healthcare professionals for this new era necessitates changes in education systems and curricula. Future healthcare professionals should be equipped not only with clinical knowledge but also with technical literacy, data literacy, and interpersonal literacy. While AI will handle cognitively demanding tasks such as complex analyses and data mining, clinicians will be able to dedicate more time to human skills that AI cannot replicate, such as compassion, empathy, ethical evaluation, and complex case management. In this way, AI will play a role in reducing workload and increasing job satisfaction for all healthcare professionals, from nurses to physiotherapists. In conclusion, the integration of AI into healthcare is an inevitable reality. However, this process must be managed with a human-centered approach. Studies predict that AI systems will not completely replace healthcare professionals, but that professionals working with AI will surpass those who do not. Instead of resisting technological advancements, healthcare team members should combine the opportunities offered by these tools with their clinical knowledge to elevate patient care outcomes to an excellent level. The sustainability of modern healthcare systems depends on the successful synthesis of the technological power brought about by digital transformation and the ancient human values of medicine.

REFERENCES

1. Krittanawong C, Zhang H, Wang Z, Aydar M, Kitai T. Artificial intelligence in precision cardiovascular medicine. *J Am Col Cardiol*. 2017;69(21):2657-2664.

2. Ahmed MI, Spooner B, Isherwood J, Lane M, Orrock E, Dennison A. A systematic review of the barriers to the implementation of artificial intelligence in healthcare *Cureus*. 2023;15(10):e 46454. doi: 10.7759/cureus.46454

3. Castagno S, Khalifa M. Perceptions of artificial intelligence among healthcare staff: a qualitative survey study. *Front Artif Intel.* 2020;3:578983. doi: 10.3389/frai.2020.578983

4. Chen M, Decary M. Artificial intelligence in healthcare: an essential guide for health leaders. *Healthc Management Forum*. 2019;32(6):1-9. doi: 10.1177/0840470419873123

5. Bohr A, Memarzadeh K. The rise of artificial intelligence in healthcare application. In: Bohr A, Memarzadeh K, eds. *Artificial Intelligence in Healthcare*. Academic Press; 2020:25-60.

6. Martinez-Ortigosa A, Martinez-Granados A, Gil-Hernández E, Rodríguez-Arrastia M, Ropero-Padilla C, Roman P. Applications of artificial intelligence in nursing care: a systematic Review. *J. Nurs Manag*. 2023;2023:3219127. doi: 10.1155/2023/3219127

7. Richardson JP, Smith C, Curtis S, et al. Patient apprehensions about the use of artificial intelligence in healthcare *NPJ Digit Med*. 2021;4:140. doi: 10.1038/s41746-021-00509-1

8. Bohr A, Memarzadeh K. Artificial intelligence in healthcare: a comprehensive review. In: Bohr A, Memarzadeh K, eds. *Artificial Intelligence in Healthcare*. Academic Press; 2020:1-24. doi: 10.1016/B978-0-12-818438-7.00001-0

9. Aggarwal R, Ganvir SS. Artificial intelligence in physiotherapy. *Physiotherapy - J Indian Assoc Physiother*. 2022;15(2):55-57. doi: 10.4103/pjiap.pjiap _3_22

10. Ravali RS, Vijayakumar TM, Lakshmi KS, et al. A systematic review of artificial intelligence for pediatric physiotherapy practice: past, present, and future. *Neurosci Inform*. 2022;2(4):100045. doi: 10.1016/j.neuri .2022.100045

11. Machine learning explained. MIT Sloan. Accessed March 30, 2026. https://mitsloan.mit.edu/ideas-made-to-matter/machine-learning-explained

12. Saravi B, Hassel F, Ülkümen S, et al. Artificial intelligence-driven prediction modeling and decision performing spine surgery using hybrid machine learning models. *J Pers Med*. 2022;12(4):509. doi: 10.3390/jpm12040509.

13. Connor CW. Artificial intelligence and machine learning in anesthesiology. *Anesthesiology*. 2019;131(6):1346-1359. doi: 10.1097/ALN.0000000000002694

14. Awan SE, Sohel F, Sanfilippo FM, Bennamoun M, Dwivedi G. Machine learning in heart failure: ready for prime time. *Curr Opin Cardiol*. 2018;33(2):190-195.

15. Peiffer-Smadja N, Rawson TM, Ahmad R, et al. machine learning for clinical decision support in infectious diseases a narrative review of current applications. *Clin Microbiol Infect*. 2020;26(5):584-595. doi: 10.1016/j.cmi.2019.09.009

16. Currie G, Hawk KE, Rohren E, Vial A, Klein R. Machine learning and deep learning in medicine imaging: intelligent imaging. *J Med Imaging Radiat Sci*. 2019;50(4):477-487.

17. McNicholas BA, Madden MG, Laffey JG. natural language processing in critical care: opportunities, challenges, and future directions. *Intensive Resort Med*. 2025;51(3):585-589.

18. Yadav S. Embracing artificial intelligence: revolutionizing nursing documentation for a better future. *Cureus*. 2024;16(4):e 58123. doi: 10.7759/cureus.57725

19. Kumar A, Gond A. Natural language processing: Achieving Healthcare benefits via NLP. *IJNRD*. 2023;8(12):244-252. doi: 10.14293/S2199-1006.1.SOR-.PPMLQWK.v 1

20. Thakur GK, Thakur A, Khan N, Anush H. The role of natural language processing in medical data analysis and healthcare automation. In: *2024 International Conference on Knowledge Engineering and Communication Systems (ICKECS)* . IEEE; 2024:1-5.

21. Chen YW, Jain LC. *Deep Learning in Healthcare: Paradigms and Applications*. Springer; 2020. doi: 10.1007/978-3-030-32606-7

22. Jin S, Liu G, Bai Q. Deep learning in COVID-19 diagnosis, prognosis and treatment selection. *Mathematics*. 2023;11(6):1279. doi: 10.3390/math11061279

23. Bozyel S, Şimşek E, Koçyiğit D, et al. Artificial intelligence-based clinical decision support systems in cardiovascular diseases. *Anatol J Cardiol*. 2024;28(2):74-84.

24. Tack C. Artificial intelligence and machine learning applications in musculoskeletal Physiotherapy. *Musculoskeletal Sci Pract*. 2019;39:164-169.

25. Hassanein S, El Arab RA, Abdrbo A, et al. Artificial intelligence in nursing: an integrative review of clinical and operational impacts. *Front Digit Health*. 2025;7:1552372.

26. Encarnação R, Manuel T, Palheira H, Neves-Amado J, Alves P. Artificial intelligence in wound resort education: protocol for a scoping Review. *Nurs Rep*. 2024;14(1):627-640.

27. Ganesan O, Morris MX, Guo L, Orgill D. A review of artificial intelligence in wound care. *Artif Intell Surg*. 2024;4(4):364-375. doi: 10.20517/ais.2024.68

28. Karnehed S, Larsson I, Petersson L, Erlandsson LK, Tyskbo D. Navigating artificial intelligence in home healthcare: challenges and opportunities in nursing wound care. *BMC Nurs*. 2025;24(1):660. doi: 10.1186/s12912-025-03348-7

29. Pavuluri S, Sangal R, Sather J, Taylor RA. balancing act: the complex role of artificial intelligence in addressing burnout and healthcare workforce dynamics. *BMJ Health Resort Inform*. 2024;31(1):e 101120. doi: 10.1136/bmjhci-2024-101120

30. Vélez-Guerrero MA, Callejas-Cuervo M, Mazzoleni S. Artificial intelligence-based wearable robotics exoskeletons for upper limb rehabilitation: a review. *Sensors*. 2021;21(6):2146. doi: 10.3390/s21062146

31. Wang X, He X, Wei J, Liu J, Li Y, Liu X. Application of artificial intelligence to the public health Education. *Front Public Health*. 2023;10:1087174.

32. Wang J, Li J. Artificial intelligence empowering public health education: prospects and challenges. *Front Public Health*. 2024;12:1389026. doi: 10.3389/fpubh.2024.1389026

33. Sriram A, Ramachandran K, Krishnamoorthy S. Artificial intelligence in medical education: transforming learning and practice. *Cureus*. 2025;17(3):e78901.