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AI in Healthcare Administration: Streamlining Processes for a More Efficient Future

Panahi O*

Centro Escolar University, Faculty of Dentistry, Manila, Philippines

***Corresponding author:** Omid Panahi, Centro Escolar University, Faculty of Dentistry, Manila, Philippines

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Abstract

Artificial Intelligence (AI) is rapidly transforming healthcare administration by automating tasks, optimizing workflows, and enhancing efficiency. This abstract explores the multifaceted applications of AI technologies, such as Robotic Process Automation (RPA), predictive analytics, and Natural Language Processing (NLP), in streamlining administrative processes within healthcare organizations. By automating routine tasks like appointment scheduling, billing, and documentation, AI minimizes errors and reduces administrative burdens, allowing healthcare professionals to focus more on patient care. Predictive analytics enables better resource allocation and forecasting of patient volumes, while NLP facilitates improved communication and insights from unstructured data. The integration of AI promises to optimize operational efficiency, reduce costs, and ultimately contribute to a more efficient and patient-centric healthcare future.

Keywords: Artificial intelligence; Healthcare administration; Process optimization; Efficiency; Automation

Introduction

The healthcare industry, a cornerstone of societal well-being, is facing unprecedented challenges in the 21st century. Rising costs, increasing patient volumes, complex regulatory landscapes, and the ever-growing demand for personalized and high-quality care are straining traditional operational models. In this environment of escalating pressure, the need for innovative solutions to enhance efficiency, optimize resource allocation, and improve overall administrative processes has become paramount. Artificial Intelligence (AI)[1-21], with its remarkable ability to analyze vast datasets, automate intricate tasks, and derive intelligent insights, has emerged as a transformative force poised to revolutionize the very fabric of healthcare administration. For decades, administrative functions within healthcare organizations have relied heavily on manual processes, often characterized by repetitive tasks, fragmented workflows, and the potential for human error. These inefficiencies not only contribute to escalating operational costs but also divert valuable time and resources away from the core mission of patient care. From managing patient records and scheduling appointments to navigating complex billing systems and ensuring regulatory compliance, the administrative burden on healthcare professionals and support staff is substantial. Recognizing these limitations, healthcare leaders are increasingly looking towards AI as a strategic imperative to streamline operations, enhance accuracy, and ultimately create a more sustainable and patient-centric healthcare ecosystem. The integration of AI into healthcare administration is not a monolithic endeavor. Instead, it encompasses a diverse range of technologies and applications, each addressing specific pain points within the administrative landscape. Robotic Process Automation (RPA) offers the capability to automate repetitive, rule-based tasks, mimicking human actions to handle high-volume processes like data entry, claims processing, and report generation. Machine Learning (ML) algorithms can analyze historical data to identify patterns and predict future trends, enabling more accurate forecasting of patient volumes, optimizing resource allocation, and even detecting potential fraudulent activities. Natural Language Processing (NLP) empowers systems to understand and process human language, facilitating tasks such as extracting information

from unstructured clinical notes, automating patient communication through chatbots, and improving the efficiency of documentation processes. The potential impact of these AI technologies [22-39] on healthcare administration is profound. By automating routine tasks, AI can significantly reduce the administrative burden on staff, freeing up their time to focus on more complex and strategic initiatives, including enhanced patient interaction and improved care coordination. The increased accuracy and efficiency afforded by AI can lead to substantial cost savings through reduced errors, faster turnaround times, and optimized resource utilization. Furthermore, AI-powered tools can enhance the patient experience by providing more convenient access to services, personalized communication, and faster resolution of administrative issues. Ultimately, the intelligent automation of administrative processes promises to create a more agile, responsive, and efficient healthcare system that is better equipped to meet the evolving needs of patients and providers alike. However, the journey towards widespread AI adoption in healthcare administration is not without its challenges. Concerns surrounding data privacy and security, the ethical implications of algorithmic decision-making, the need for seamless integration with existing systems, and the importance of maintaining human oversight are critical considerations that must be addressed thoughtfully and proactively. Building trust in AI technologies among healthcare professionals and patients is paramount, requiring transparency, robust validation processes, and a clear understanding of the technology's capabilities and limitations. Moreover, the successful implementation of AI necessitates a skilled workforce capable of developing, deploying, and managing these sophisticated systems, highlighting the need for investment in training and education.

Despite these challenges, the momentum behind AI in healthcare administration is undeniable. As the technology continues to mature and demonstrate its tangible benefits, its adoption is expected to accelerate across various healthcare settings, from hospitals and clinics to insurance providers and public health organizations. This introduction aims to provide a comprehensive overview of the transformative potential of AI in streamlining administrative processes within healthcare. It will delve into the key AI technologies being deployed, explore their diverse applications across different administrative functions, discuss the anticipated benefits and challenges associated with their implementation, and ultimately paint a picture of a more efficient and intelligent future for healthcare administration a future where technology empowers healthcare professionals to focus on what truly matters: the health and well-being of their patients. The subsequent sections of this exploration will delve deeper into specific areas where AI is making significant strides in healthcare administration [40-59]. We will examine the application of RPA in automating back-office functions, the power of predictive analytics in optimizing resource allocation and forecasting, and the role of NLP in enhancing communication and extracting valuable insights from unstructured data. Furthermore, we will analyze the impact of AI on key administrative processes such as patient scheduling, billing and claims management, health record management, and supply chain optimization. Beyond the technological capabilities, this discussion will also address the critical considerations surrounding the ethical implications of AI in healthcare administration. Issues of data privacy, algorithmic bias, and the potential impact on the healthcare workforce will be examined to ensure a responsible and equitable implementation of these powerful tools. The importance of human oversight and the need for collaborative partnerships between AI systems and healthcare professionals will be emphasized as crucial elements for successful integration.

Moreover, the practical challenges of implementing AI solutions in complex healthcare environments will be explored. This includes the need for interoperability between different AI systems and existing healthcare IT infrastructure, the importance of data standardization and quality, and the necessity of addressing regulatory hurdles and ensuring compliance. Strategies for overcoming these challenges and fostering a culture of innovation within healthcare organizations will be discussed. Finally, this introduction will culminate in a vision for the future of healthcare administration, where AI plays a central role in creating a more efficient, cost-effective, and patient-centered system. By streamlining administrative burdens, optimizing resource allocation, and enhancing the overall operational efficiency, AI has the potential [60-83] to empower healthcare professionals to deliver higher quality care and improve patient outcomes. This exploration aims to provide a foundational understanding of the transformative power of AI in reshaping the administrative landscape of healthcare, paving the way for a more intelligent and sustainable future for the industry. The journey has begun, and the potential for positive change is immense, promising a future where technology and human expertise converge to create a more efficient and compassionate healthcare system for all.

Challenges

While the potential benefits of AI in streamlining healthcare administration are substantial, the path to widespread and successful implementation is fraught with challenges and requires careful consideration of various factors. Overcoming these hurdles is crucial to realizing the full transformative potential of AI and ensuring its responsible and ethical application within the healthcare ecosystem. One of the most significant challenges revolves around data privacy and security. Healthcare data is highly sensitive and protected by stringent regulations such as HIPAA in the United States and GDPR in Europe. Implementing

AI systems [84-87] that require access to and processing of this data necessitates robust security measures, including encryption, anonymization techniques, and strict access controls, to prevent breaches and ensure patient confidentiality. Building trust among patients and healthcare providers regarding the security of their data within AI-powered systems is paramount for widespread adoption. Another critical concern is the potential for algorithmic bias. AI algorithms learn from the data they are trained on, and if this data reflects existing societal biases related to race, gender, socioeconomic status, or other factors, the AI system may perpetuate or even amplify these biases in its predictions and decisions. In healthcare administration, this could lead to inequities in resource allocation, patient prioritization, or even the detection of fraudulent activities. Addressing algorithmic bias requires careful data curation, diverse and representative training datasets, and ongoing monitoring and evaluation of AI system outputs to identify and mitigate any discriminatory tendencies. Ensuring fairness and equity in AI applications is essential for maintaining public trust and achieving equitable healthcare outcomes.

The integration of AI systems with existing healthcare IT infrastructure presents a significant technical challenge. Many healthcare organizations rely on legacy systems that may not be easily compatible with modern AI technologies. Achieving seamless interoperability between AI tools and existing Electronic Health Record (EHR) systems [96-103], billing platforms, and other administrative software is crucial for efficient data flow and workflow automation. This often requires significant investment in system upgrades, data standardization efforts, and the development of application programming interfaces (APIs) to facilitate communication between disparate systems.

Furthermore, the lack of standardization in data formats and terminologies across different healthcare organizations and systems poses a major obstacle to the effective training and deployment of AI models. AI algorithms thrive on large, consistent datasets, and the heterogeneity of healthcare data can hinder their ability to learn and generalize effectively. Efforts to promote data standardization and interoperability at a national and international level are crucial for unlocking the full potential of AI in healthcare administration.

The ethical implications of using AI in administrative decision-making also warrant careful consideration. While AI can automate tasks and provide valuable insights, it is essential to maintain human oversight and accountability. Decisions that impact patient access to care, resource allocation, or financial outcomes should not be solely based on algorithmic outputs without human review and ethical considerations. Establishing clear guidelines and ethical frameworks for the use of AI in healthcare administration is crucial to ensure responsible and transparent decision-making processes.

Building trust and acceptance among healthcare professionals is another key challenge. Some clinicians and administrative staff may harbor concerns about job displacement, the "black box" nature of certain AI algorithms, or the potential for technology to depersonalize patient interactions. Effective communication, education, and training are essential to demonstrate the benefits of AI, address concerns, and empower healthcare professionals to effectively collaborate with AI systems. Highlighting how AI can augment their capabilities and free them from tedious tasks, rather than replace them entirely, is crucial for fostering a positive attitude towards AI adoption.

The regulatory landscape surrounding AI in healthcare is still evolving. Clear guidelines and regulations are needed to address issues related to data privacy, security, algorithmic bias, and the accountability of AI-driven decisions. Navigating this evolving regulatory environment and ensuring compliance with existing and future regulations requires ongoing attention and proactive engagement from healthcare organizations.

Finally, the cost of developing and implementing AI solutions can be a significant barrier for many healthcare organizations, particularly smaller clinics and rural hospitals. The initial investment in infrastructure, software, and skilled personnel can be substantial. Demonstrating a clear return on investment (ROI) and exploring cost-effective AI solutions are crucial for promoting wider adoption across the healthcare sector.

Future Works

The field of AI in healthcare administration is rapidly evolving, with numerous avenues for future work and development. Building upon current applications, future research and implementation efforts are likely to focus on:

Enhanced Automation and Intelligent Workflows

- **Hyper automation:** Moving beyond basic RPA to orchestrate multiple AI technologies for end-to-end automation of complex administrative processes, such as patient onboarding, insurance pre-authorization, and discharge management.
- **Intelligent Document Processing (IDP)**: Developing AI capable of understanding and extracting information from a wider variety of unstructured documents (e.g., physician notes, referral letters) with higher accuracy, reducing manual data entry and improving information flow.
- **Autonomous Agents**: Exploring the potential of AI agents that can proactively manage tasks, make decisions within defined parameters, and learn from their interactions, further minimizing the need for human intervention in routine operations.

Proactive and Predictive Analytics

- **Predictive Modeling for Resource Optimization**: Developing more sophisticated AI models to forecast patient volume with greater accuracy, predict staffing needs dynamically, optimize bed allocation in real-time, and anticipate supply chain disruptions.
- **Risk Stratification for Administrative Processes**: Utilizing AI to identify potential risks in administrative workflows, such as billing errors, compliance violations, or patient dissatisfaction, allowing for proactive intervention and mitigation.
- **Early Detection of Administrative Inefficiencies**: Employing AI to continuously monitor administrative processes, identify bottlenecks and inefficiencies, and recommend data-driven solutions for improvement.

Personalized and Enhanced Patient Experience

- **AI-Powered Patient Navigation**: Creating intelligent systems that guide patients through the healthcare journey, providing personalized information, scheduling assistance, and support at each touchpoint.
- **Predictive Personalization of Communication**: Using AI to analyze patient preferences and communication patterns to deliver more relevant and timely information through preferred channels.
- **Sentiment Analysis for Patient Feedback**: Implementing NLP to analyze patient feedback from various sources (e.g., surveys, reviews) to identify areas for improvement in administrative services and patient satisfaction.

Improved Data Management and Interoperability

- **Federated Learning for Privacy-Preserved Analytics**: Enabling AI models to learn from decentralized healthcare data without compromising patient privacy by sharing data.
- **AI-Driven Data Standardization and Harmonization**: Developing AI tools to automatically standardize and harmonize data from disparate systems, improving data quality and facilitating interoperability.
- **Block chain Integration for Secure Data Sharing**: Exploring the use of blockchain technology in conjunction with AI to create secure and transparent platforms for sharing administrative and potentially clinical data among authorized stakeholders.

Enhanced Decision Support for Administrators

- **AI-Powered Scenario Planning**: Developing AI models that can simulate different administrative scenarios and predict their potential outcomes, enabling leaders to make more informed strategic decisions.
- **Real-time Performance Dashboards with AI Insights**: Creating dynamic dashboards that not only display key performance indicators but also provide AI-driven insights and recommendations for improvement.
- **AI for Regulatory Compliance**: Utilizing AI to stay abreast of evolving regulations, automate compliance checks, and identify potential risks of non-compliance.

Ethical and Responsible AI Implementation

- **Bias Detection and Mitigation**: Developing robust methodologies and tools to identify and mitigate biases in AI algorithms used in administrative decision-making.
- **Explainable AI (XAI) for Administrative Processes**: Focusing on making AI-driven recommendations and decisions transparent and understandable to administrative staff.
- **Frameworks for Ethical AI Governance**: Establishing clear ethical guidelines and governance structures for the development and deployment of AI in healthcare administration.

Integration with Clinical AI Applications

- **Seamless Data Flow between Clinical and Administrative AI**: Creating integrated systems where insights from clinical AI (e.g., predicted readmissions) can inform administrative AI for better resource allocation and patient support.
- **Holistic Patient Management**: Developing AI solutions that provide a comprehensive view of the patient journey, integrating clinical and administrative data to optimize care coordination and outcomes.

Conclusion

The integration of Artificial Intelligence into healthcare administration represents a paradigm shift with the potential to fundamentally reshape the operational landscape of the industry. As explored, AI technologies offer a powerful toolkit for streamlining processes, enhancing efficiency, optimizing resource allocation, and ultimately fostering a more patient-centric healthcare ecosystem. From automating routine tasks with RPA and extracting insights from unstructured data with NLP to predicting future trends with machine learning and personalizing patient interactions with intelligent agents, AI is demonstrating its

capacity to alleviate administrative burdens, reduce costs, and improve the overall quality of healthcare delivery. The journey towards widespread AI adoption, however, is not without its complexities. Challenges related to data privacy and security, algorithmic bias, system interoperability, ethical considerations, and the need for workforce adaptation must be addressed thoughtfully and proactively. Overcoming these hurdles requires a concerted effort involving technological innovation, robust regulatory frameworks, ethical guidelines, and a commitment to fostering trust and understanding among healthcare professionals and patients alike. Looking towards the future, the trajectory of AI in healthcare administration points towards increasingly sophisticated and integrated solutions. We can anticipate the rise of hyper automation, intelligent document processing, and autonomous agents that will further streamline complex workflows. Proactive and predictive analytics will empower administrators to make more informed decisions regarding resource allocation and risk management. Personalized patient experiences, driven by AI-powered communication and navigation tools, will become increasingly prevalent. Furthermore, advancements in data management and interoperability, coupled with a strong focus on ethical and responsible AI implementation, will be crucial for unlocking the full transformative potential of these technologies.

References

1. Panahi O, Dadkhah S. AI in modern dentistry.
2. Panahi U. AD HOC Networks: Applications, Challenges and Future Directions, Ediciones Nuestro Conocimiento.
3. Panahi U. AD HOC Networks: Applications, Challenges and Future Directions, Editions Notre Savoir.
4. Panahi U. AD HOC Networks: applications, challenges, future paths, Publisher Our Knowledge.
5. Panahi O. The Role of Artificial Intelligence in Shaping Future Health Planning. Int J Health Policy Plann.2025; 4: 01-05.
6. Panahi O. AI in Health Policy: Navigating Implementation and Ethical Considerations. Int J Health Policy Plann.2025;4: 01-05.
7. Panahi O. Dental Implants & the Rise of AI. On J Dent Oral Health. 2024; 8.
8. Panahi O, Falkner S. Telemedicine, AI, and the Future of Public Health. Western J Med Sci Res. 2025; 2: 102.
9. Panahi O. Innovative Biomaterials for Sustainable Medical Implants: A Circular Economy Approach. European J Innovative Studies Sustainability. 2025; 1: 1-5.
10. Panahi O. Wearable Sensors and Personalized Sustainability: Monitoring Health and Environmental Exposures in Real-Time. European J Innovative Studies Sustainability. 2025; 1; 1-5.
11. Panahi O. AI-Enhanced Case Reports: Integrating Medical Imaging for Diagnostic Insights. J Case Rep Clin Images. 2025; 8: 1161
12. Panahi O. AI and IT in Medical Imaging: Case Reports. J Case Rep Clin Images. 2025; 8: 1160.
13. Panahi O, Farrokh S, Amirloo. Robotics in Implant Dentistry: Current Status and Future Prospects. Scientific Archives Dental Sci. 2025; 55-60.
14. Omid P, Soren F. The Digital Double: Data Privacy, Security, and Consent in AI Implants. Digit J Eng Sci Technol. 2025; 2: 105.
15. Panahi O. Algorithmic Medicine. J Med Discoveries. 2025; 2.
16. Panahi O. Deep Learning in Diagnostics. J Med Discoveries. 2025; 2.
17. Panahi O. AI in Health Policy: Navigating Implementation and Ethical Considerations. Int J Health Policy Plann. 2025; 4: 1-5.
18. Panahi O. The Role of Artificial Intelligence in Shaping Future Health Planning. Int J Health Policy Plann. 2025; 4: 01-05.
19. Panahi O. Secure IoT for Healthcare. European J Innovative Studies Sustainability. 2025; 1: 1-5.
20. Omid P, Evil Farrokh E. Beyond the Scalpel: AI, Alternative Medicine, and the Future of Personalized Dental Care. J Complement Med Alt Healthcare. 2024; 13: 555860.
21. Panahi O, Farrokh S. Ethical Considerations of AI in Implant Dentistry: A Clinical Perspective. J Clin Rev Case Rep. 2025; 10: 01-05.
22. Panahi O, Ezzati A, Zeynali M. Will AI Replace Your Dentist? The Future of Dental Practice. OnJ Dent Oral Health. 2025; 8.
23. Panahi O. Navigating the AI Landscape in Healthcare and Public Health. Mathews J Nurs. 2025; 7: 56.
24. Panahi O, Esmaili F, Kargarnezhad S. Artificial Intelligence in Dentistry, Wissen Publishing. 2024.
25. Panahi O, Esmaili F, Kargarnezhad S. Artificial Intelligence in Dentistry, Scholars Press Publishing. 2024.
26. Panahi O, Esmaili F, Kargarnezhad S. Artificial intelligence in dentistry. Nuestro Conoc, Mento Publishing. 2024.
27. Panahi O, Esmaili F, Kargarnezhad S. Artificial intelligence in dentistry. Edition Notre Savoir Publishing Publishing. 2024.
28. Panahi O, Esmaili F, Kargarnezhad S. Artificial Intelligence in Dentistry, SAPIENZA Publishing. 2024.
29. Panahi O, Esmaili F, Kargarnezhad S. Artificial Intelligence in Dentistry, NOSSO CONHECIMENTO Publishing. 2024.
30. Panahi O, Esmaili F, Kargarnezhad S, Artificial Intelligence in Dentistry, SCIENCIA SCRIPTS Publishing. 2024.
31. Esmaielzadeh S, Panahi O, Çay DFK. Application of Clay's in Drug Delivery in Dental Medicine, Scholars Press Academic Publishing. 2020.
32. Gholizadeh M, Panahi O. Investigating System in Health Management Information Systems. Scholars Press Academic Publishing. 2021.
33. Gholizadeh M, Panahi O. Untersuchungssystem im Gesund heits management Informations systeme, Unser wissen Publishing. 2021.
34. Gholizadeh M, Panahi O. Research system in health management information systems, NUESTRO CONOC, MENTO Publishing. 2021
35. Gholizadeh M, Panahi O. Investigation system in health management information systems. EDITION NOTRE SAVOIR Publishing. 2021.
36. Gholizadeh M, Panahi O. Investigating the system in health management information systems, SAPIENZA Publishing. 2021.

37. Gholizadeh M, Panahi O. Systems Research in Health Management Information Systems, ONZE KENNIS Publishing. 2021.
38. Gholizadeh M, Panahi O. Research system in health management information systems, NAZSA WIEDZA Publishing. 2021.
39. Panahi O, Azarfardin A. Computer-Aided Implant Planning: Utilizing AI for Precise Placement and Predictable Outcomes..J Dentistry Oral Health. 2025; 2.
40. Gholizadeh M, Panahi O. Research System in Health Management Information Systems. NOSSO CONHECIMENTO Publishing. 2021.
41. Gholizadeh M, Panahi O. Research system in health management information systems SCIENCIA SCRIPTS Publishing. 2021.
42. Ostovar L, Vatan KK, Panahi O. Clinical Outcome of Thrombolytic Therapy, Scholars Press Academic Publishing. 2020.
43. Panahi O. Nanotechnology, Regenerative Medicine and Tissue Bioengineering. Scholars Press Academic Publishing. 2019
44. Zarei S, Panahi O, Bahador N. Antibacterial activity of aqueous extract of eucalyptus camaldulensis against Vibrio harveyi (PTCC1755) and Vibrio alginolyticus (MK641453.1). Saarbucken: LAP, Lambert Academic Publishing GmbH Co.KG. 2019.
45. Samira, Zarei P, Panahi O. Eucalyptus camaldulensis Extract as a Preventive to the Vibriosis, Scholars Press Academic Publishing. 2019.
46. Panahi O. Dental Implants the Rise of AI. On J Dent Oral Health. 2024; 8.
47. Omid P, Sevil Farrokh E. Bioengineering Innovations in Dental Implantology. Curr Trends Biomedical Eng Biosci. 2025; 23: 556111.
48. Panahi P, Bayılmış C, Çavuşoglu U, Kaçar, S. Performance evaluation of lightweight encryption algorithms for IoT-based applications. Arabian J Sci Engineering. 2021; 46: 4015-4037.
49. Panahi U, Bayılmış C. Enabling secure data transmission for wireless sensor networks based IoT applications. Ain Shams Engineering J.2023; 14: 101866.
50. Panahi O, Panahi U. AI-Powered IoT: Transforming Diagnostics and Treatment Planning in Oral Implantology. J AdvArtifIntell Mach Learn. 2025; 1: 1-4.
51. Panahi O. The Algorithmic Healer: AI's Impact on Public Health Delivery. MediClin Case Rep J. 2025; 3: 759-762.
52. Panahi O. The Future of Healthcare: AI, Public Health and the Digital Revolution. MediClin Case Rep J. 2025; 3: 763-766.
53. Panahi O, Raouf MF, Patrik K. The evaluation between pregnancy and peridontal therapy Int J Acad Res. 2011; 3: 1057-1058
54. Panahi O, Melody FR, Kennet P, Tamson MK. Drug induced (calcium channel blockers) gingival hyperplasia. JMBS 2011; 2: 10-12.
55. Omid P. Relevance between gingival hyperplasia and leukemia. Int J Acad Res. 2011; 3: 493-494.
56. Omid P, Fatmanur KC. Nanotechnology, Regenerative Medicine and, Tissue Bio-Engineering". Acta Scientific Dental Sciences. 2023; 118-122.
57. Omid P. Dental Pulp Stem Cells: A Review. Acta Scientific Dental Sciences. 2024: 22-24.
58. Panahi U. AD HOC Networks: Applications, Challenges, Future Directions, Scholars Press.
59. Omid panahi, Artificial intelligence in Dentistry, Scholars Press Academic Publishing.
60. Panahi P, Freund M. Safety application schema for vehicular virtual ad hoc grid networks, International Journal of Academic Research. 2011; 3.
61. Panahi P. New Plan for Hardware Resource Utilization in Multimedia Applications Over Multi Processor Based System, MIPRO. 2009; 256-260.
62. Panahi O, Eslamlou SF, Peridontium: structure, function and clinical management.
63. Koyuncu B, Panahi P. Kalman Filtering of Link Quality Indicator Values for Position Detection by Using WSNS, Int'l J Computing, Communications & Instrumentation Engg. (IJCCIE). 2014; 1.
64. Panahi O. The Algorithmic Healer: AI's Impact on Public Health Delivery. Medi Clin Case Rep J. 2025; 3: 759-762.
65. Panahi O. The Future of Healthcare: AI, Public Health and the Digital Revolution. Medi Clin Case Rep J. 2025; 3: 763-766.
66. Panahi O. Comparison between unripe Makopa fruit extract on bleeding and clotting time. Int J Paediatric Dentistry. 2013; 23, 205.
67. Panahi O, Arab MS, Tamson, KM. Gingival enlargement and relevance with leukaemia. Int J Academic Res. 2011; 3.
68. Panahi O. Stem cells from the dental pulp.
69. Panahi O. Dental pulp stem cells.
70. Panahi O, Melody FR. A Novel scheme about extraction orthodontic and orthotherapy. Int J Academic Research. 2011; 3.
71. Panahi O, Nunag GM, Nourinezhad SA. Molecular pathology: P-115: Correlation of Helicobacter pylori and prevalent infections in oral cavity. Cell J. 2011; 91-92.
72. Panahi P, Bayılmış C, Çavuşoglu U, Kaçar S. Performance Evaluation of L-Block Algorithm for IoT Applications. UBMK. 2018; 609-612.
73. Panahi P, Bayılmış C, Cavuşoglu U, Kaçar S. Comparing PRESENT and LBlock block ciphers over IoT Platform, Seed. 2019; 66-69.
74. Panahi, U. Nesnelerin interneti için hafif siklet kriptoloji algoritmalarına dayalı güvenli haberleşme modeli tasarımı. Sakarya, 2022.
75. Koyuncu B, Panahi P, Varlioglu S. Comparative Indoor Localization by using Landmarc and Cricket Systems. Int J Emerging Technology Advanced Engineering. 2015; 5: 453-456.
76. Panahi O, Eslamlou SF, Jabbarzadeh M. Digital dentistry and artificial intelligence.
77. Panahi O, Eslamlou SF, Dr Masoumeh Jabbarzadeh, Digital Dentistry and Artificial Intelligence.
78. Panahi O,Jabbarzadeh M. The Expanding Role of Artificial Intelligence in Modern Dentistry. On J Dent Oral Health. 2025;8
79. Omid P, Shabnam D. Mitigating Aflatoxin Contamination in Grains: The Importance of Postharvest Management Practices. Adv Biotech & Micro. 2025; 18: 555996.
80. Panahi O, Ezzati A. AI in Dental-Medicine: Current Applications & Future Directions. Open Access J Clin Images. 2025; 2: 1-5.
81. Koyuncu, B, Gokce, A, Panahi P. Reconstruction of an Archeological site in real time domain by using software techniques. IEEE. 2015; 1350-1354.

82. Omid P, Soren F. The Digital Double: Data Privacy, Security, and Consent in AI Implants West J Dent Sci. 2025; 2: 108.
83. Panahi U. AD HOC Networks: Applications, Challenges, Future Directions, Issues Our Knowledge.
84. Panahi U. AD HOC Networks: Applications, Challenges, Future Directions, Nasza Wiedza Publishing House,
85. Panahi U. Ad Hoc Networks: Applications, Challenges and Future Directions, Sapienza Editions.
86. Panahi O. Eslamlou SF, Peridontium: Structure, function and clinical management,
87. Panahi O, Dadkhah S. AI in modern dentistry.
1.