



## Investigation of artificial intelligence in hospital planning and human resource management

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### Introduction:

As an innovative tool, artificial intelligence (AI) has great potential to optimize hospital planning processes and human resource management. With increasing complexity and demand in healthcare systems, the use of AI can lead to reduced costs, increased productivity and improved service delivery. This study examines the role of AI in improving human resource management and operational planning in hospitals.

### Research method:

This review research was conducted with the qualitative analysis of studies conducted between 2015 and 2023 in PubMed, Scopus and Web of Science databases. The inclusion criteria included articles that addressed the use of AI in human resource management and hospital planning. The collected data were systematically reviewed.

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### Results:

Studies have shown that artificial intelligence can increase the quality of services by predicting hospital needs, optimal allocation of resources, and efficient scheduling of human resources. Machine learning algorithms have been able to play an effective role in analyzing big data, improving the hiring process, managing work shifts, and reducing job burnout. Also, artificial intelligence systems have been effective in predicting patient volume, allocating beds and



optimizing the supply chain. However, challenges such as staff resistance to technological changes and data privacy concerns were reported.

#### Conclusion:

Artificial intelligence can be used as a strategic tool in human resource management and hospital planning. This technology improves productivity and reduces errors by providing advanced solutions. However, the adoption of this technology requires the training of employees and the creation of appropriate infrastructure.

#### Refrence:

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3. Zhang X, Liu Y, Chen X. AI applications in hospital management: A systematic review. \*Health Serv Res\*. 2022;57(4):2345-56.