How Does AI Support Occupational Therapy?

Rasit Dinc

Rasit Dinc Digital Health & AI Research

Published: September 28, 2016 | AI in Rehabilitation Medicine

DOI: 10.5281/zenodo.17999146

Abstract

Artificial intelligence (AI) is rapidly transforming various sectors, and healthcare is no exception. Within the field of occupational therapy, AI is emergin...

How Does AI Support Occupational Therapy?

By Rasit Dinc

Artificial intelligence (AI) is rapidly transforming various sectors, and healthcare is no exception. Within the field of occupational therapy, AI is emerging as a powerful tool with the potential to revolutionize how practitioners deliver care, manage their workload, and interact with clients. From streamlining administrative tasks to personalizing treatment plans, AI is not a replacement for occupational therapists but rather a valuable partner that can enhance their practice and improve client outcomes. This article explores the multifaceted ways in which AI is supporting occupational therapy, backed by recent research and real-world applications.

One of the most significant contributions of AI in occupational therapy is its ability to enhance clinical documentation. The administrative burden of documentation is a well-known challenge for therapists, often taking up valuable time that could be spent with clients. A 2025 study published in *Digital Health* found that AI-generated documentation was rated significantly higher in both quality and empathy compared to human-generated notes [1]. The study revealed that AI was 2.7 to 2.8 times more likely to produce documentation rated as “good” or “very good,” highlighting its potential to improve the standard of clinical notes while freeing up therapists to focus on direct client care [1]. While human-generated documentation showed greater consistency in interpretation, the findings strongly suggest that AI can be an invaluable assistant in creating comprehensive and empathetic documentation [1].

Beyond documentation, AI is playing a crucial role in the development of personalized treatment plans. By analyzing vast amounts of data, AI algorithms can identify patterns and predict client needs with a level of precision that is difficult to achieve manually. This enables therapists to design interventions that are tailored to the specific circumstances and goals

of each individual. For example, AI-powered tools can analyze a client's movement patterns, daily activities, and progress over time to recommend specific exercises, adaptive equipment, or therapeutic activities. This data-driven approach to treatment planning can lead to more effective interventions and better client outcomes.

AI is also offering a promising solution to the growing workforce shortages in occupational therapy. A 2025 article in *WORK: A Journal of Prevention, Assessment & Rehabilitation* highlights the increasing gap between the demand for occupational therapy services and the number of available practitioners [2]. The authors argue that AI can help bridge this gap by automating repetitive tasks, improving efficiency, and allowing therapists to manage a larger caseload without compromising the quality of care [2]. By taking on administrative and other non-clinical tasks, AI can help reduce therapist burnout and improve job satisfaction, which are critical factors in retaining a skilled workforce.

Furthermore, AI is enhancing the efficiency of occupational therapy practice in numerous other ways. AI-driven software can assist with scheduling, billing, and other administrative tasks, reducing the time therapists spend on paperwork. AI-powered telehealth platforms are making it possible to deliver therapy services remotely, increasing access to care for individuals in rural or underserved areas. In addition, AI-based assessment tools can provide objective and reliable data on a client's functional abilities, helping therapists to make more informed clinical decisions.

In conclusion, artificial intelligence is not a futuristic concept in occupational therapy; it is a present-day reality that is already making a significant impact. From improving the quality of documentation and personalizing treatment plans to addressing workforce shortages and enhancing overall efficiency, AI is empowering occupational therapists to provide better care to their clients. As AI technology continues to evolve, its role in occupational therapy is likely to expand, offering new and innovative ways to support the profession and improve the lives of individuals receiving therapy. The key to successfully integrating AI into practice lies in viewing it as a collaborative tool that complements the unique skills and expertise of occupational therapists, ultimately leading to a more effective and client-centered approach to care.

References

[1] Lee, S. A., & Park, J. H. (2025). Artificial intelligence in occupational therapy documentation: Chatbot vs. Occupational Therapists. *Digital Health*, *11*. https://doi.org/10.1177/20552076251386657

[2] Stover, A. D., & Jacobs, K. (2025). Embracing artificial intelligence (AI) in occupational therapy practice: Bridging workforce gaps and redefining care. *WORK: A Journal of Prevention, Assessment & Rehabilitation*, *80*(3), 1021–1028. https://doi.org/10.1177/10519815241312447

https://rasitdinc.com