The Perception and Use of Artificial Intelligence in Occupational and Physical Therapy Practice in Texas

Jacob Burtch[1] PT, DPT, ScD; Brad Allen[2] PT, ScD; Cindi Tiongco[2] OTR, PhD; Kendra Nicks[1] PT, ScD, COMT; Kelly Moore[1] DPT, MBA, CWS

[1]Angelo State University, San Angelo, TX

[2]Texas Tech University Health Sciences Center, Lubbock, TX

Purpose

The purpose of this study was to survey licensed occupational therapists (OT) and physical therapists (PT) in Texas to determine the use and perception of artificial intelligence (AI) in clinical practice. We hypothesized that most clinicians would not currently use AI, would be only somewhat familiar with it, but would perceive potential benefits. We further hypothesized clinicians would agree there are ethical considerations and support inclusion of AI in entry-level curricula.

Background

Artificial intelligence is a field of computer science that is rapidly evolving and impacting many aspects of human life, including business, finance, and healthcare.[1,2] Authors have proposed that GPTs have a multitude of applications across the healthcare sector, such as remote patient monitoring, patient education, and developing treatment programs. Furthermore, allied health professions have used AI programs to perform screening tasks, personalize interventions, and improve social interaction.[3]

Subjects

The survey was sent to 33,013 licensed clinicians. A total of 654 responses were included in the analysis (241 OT, 394 PT).

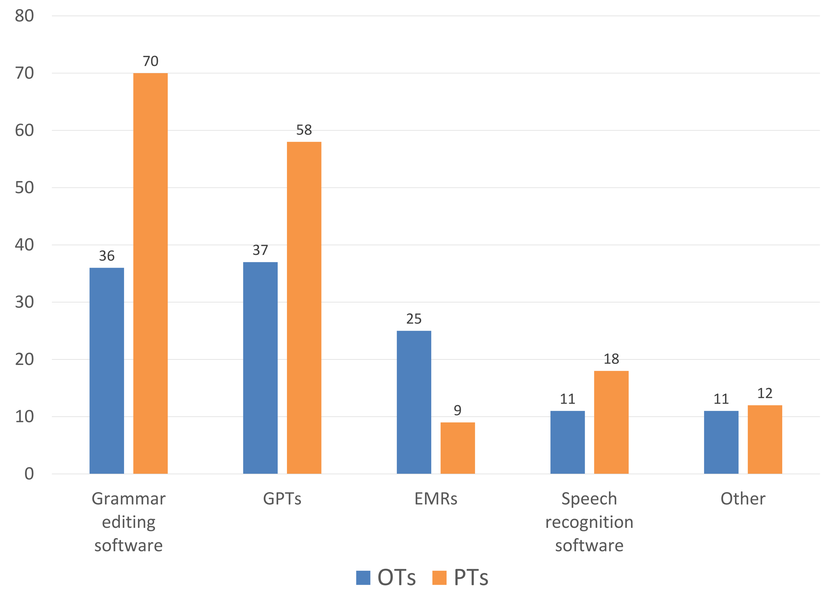
Methods

This project was a descriptive and exploratory survey study and received institutional review board approval from Texas Tech University Health Sciences Center (IRB-FY2025-32). Data was collected via a web-based survey using the Qualtrics platform. The survey launched in Fall of 2024, with PTs and OTs receiving an email requesting their voluntary participation. The deadline to complete the survey was 8 weeks post-launch. At 4 weeks and 6 weeks post-launch, the subjects were emailed a reminder to encourage a reply.

Analyses

Descriptive statistics were used to assess demographics. Correlation statistics were used to assess relationships between demographic information and perception and use of AI. For the qualitative data, an inductive, exploratory thematic analysis was used.

Figure 1. AI Application Use



Results

Quantitative Data

Of the 654 responses, 147 reported using AI in clinical practice. Figure 1. Most respondents reported being only slightly or somewhat familiar with AI in medicine and rehabilitation. Most participants agreed there are ethical concerns with AI use (88.5%) and supported AI education in entry-level curriculum (71.9%). Weak negative correlations were found between clinical experience and age and the use of AI for productivity and documentation. Weak positive correlations were found between years of clinical experience and age and the use of AI for education and clinical decision making.

Figure 2. Ethical Concerns with AI Use

Primary Theme	Concepts
Productivity	Billing
	Reimbursement
Academics	Academic Plagiarism
	Cheating
	Lack of Development
Legal and Liability	Neglect/Abuse
	Fraud
	Privacy/Confidentiality
	Veracity, beneficence, nonmaleficence
Clinical Judgement	Accuracy of information
	Clinical Reasoning
Individualized Care	Cultural Considerations
	Personal Component
	Communication Ability

Qualitative Data

Respondents were asked to provide their definition of AI. The main themes included AI as a computer program that plays a role, and AI as a computer program that is used as a tool. Respondents were also asked to provide what ethical concerns arise from using AI. These results are included in Figure 2.

Conclusion

Most OTs and PTs believe that AI can be beneficial across various aspects of clinical practice. Despite this, most OTs and PTs have limited knowledge of how AI is currently being used across the healthcare spectrum. As such, it is imperative that OTs and PTs receive education on AI and its clinical utility to improve its successful use in clinical practice. Furthermore, entry-level programs should explore the implementation of AI education into their curriculum to prepare future clinicians for successful use and adoption of this rapidly evolving technology.

References

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