Perceptions of AI Use for Clinical Interviewing in Physical Therapy Education

Jacob Burtch[1] PT, DPT, ScD; Cassidy Herringer[2] PT, DPT, OCS
[1]Angelo State University, San Angelo, TX; [2]Colorado Mesa University, Grand Junction, CO

PHYSICAL THERAPY
COLORADO MESA UNIVERSITY

BACKGROUND

PURPOSE

The purpose of this study was to explore DPT students' attitudes toward AI in education and examine changes in perceived confidence and competence in conducting subjective patient interviews.

BACKGROUND

Effective patient interviewing is a critical aspect of a physical therapist's plan of care. A positive therapeutic alliance can directly influence treatment outcomes (Alodaibi et al. 2021). Effective interviewing allows clinicians to gather relevant medical history, identify red flags, and determine if a patient is appropriate for therapy (Apeldoorn et al. 2024). Studies have proposed that AI can personalize and immediately apply feedback which can improve student learning (Chan and Zary, 2025). Furthermore, Blanco and colleagues propose that implementing AI in medical education can improve efficiency and offer safe environments for clinical skill development (Blanco et al. 2025). As AI becomes increasingly integrated into health professions education, its potential role in teaching and assessing patient interviewing skills warrants further investigation.

METHODS

SUBJECTS

Individuals were approached about participation in this study during their musculoskeletal coursework. The survey was sent to 49 DPT students enrolled in programs at the respective institutions.

METHODS

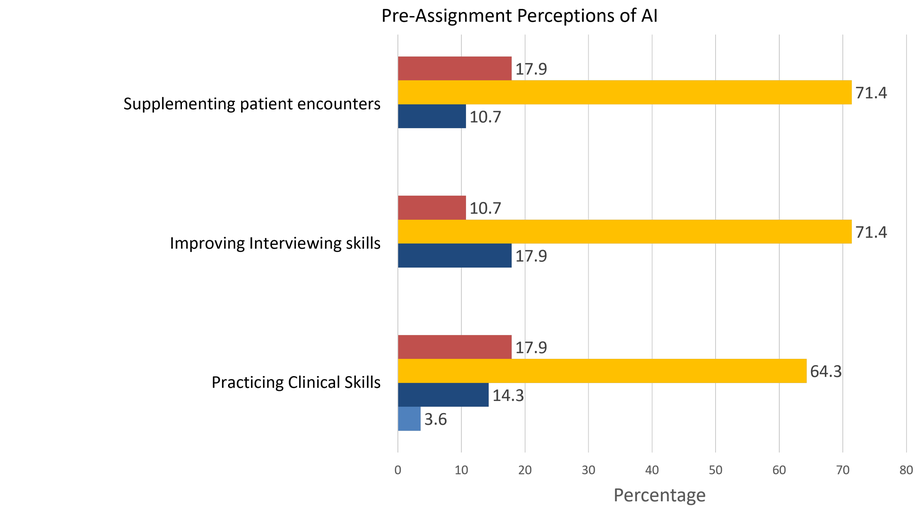
A pre–post intervention study design was used with DPT students enrolled in Angelo State University and Colorado Mesa University. Participants were assigned an AI-generated clinical case using ChatGPT, which functioned as a standardized patient during a subjective interview. Following the interview, AI provided structured performance feedback based on the ECHOWS tool. Participants completed surveys before and after the assignment assessing attitudes toward AI in education, perceived benefits and limitations of AI use, and self-reported confidence and competence in subjective interviewing.

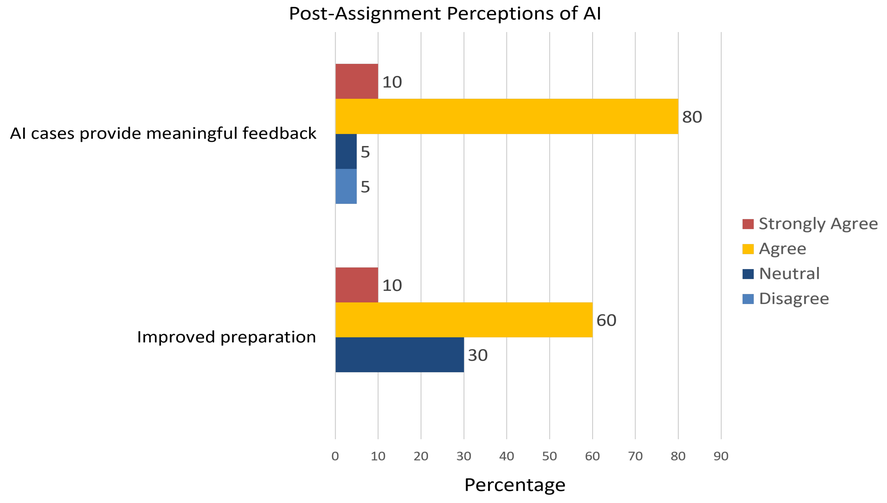
ANALYSES

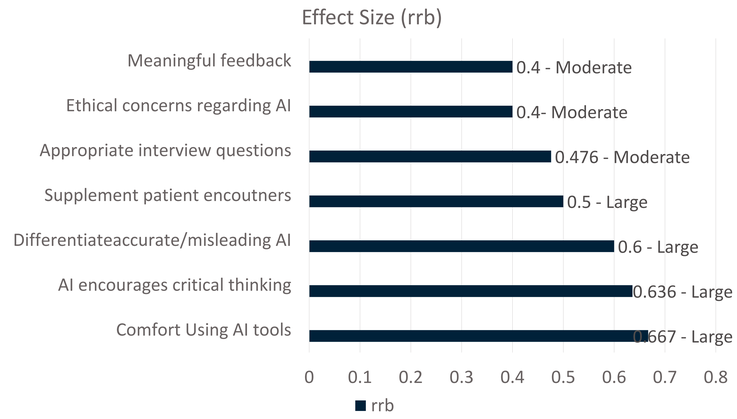
Quantitative survey data was analyzed descriptively and inferentially evaluating changes from pre- to post-intervention.

RESULTS

Twenty-eight participants completed the pre-assignment survey (20 female, 8 male), and 21 participants completed the post-assignment survey (15 female, 6 male). Frequency counts on pre-assignment surveys revealed most participants agreed or strongly agreed that AI could be a valuable tool for: practicing clinical skills (82.2%), improving interviewing skills (82.1%), and supplementing patient encounters in PT education (89.3%). For the post-assignment survey, 70% of participants agreed or strongly agreed they felt more prepared for real patient interactions following the AI simulation, and 90% of participants felt that AI cases provided meaningful feedback. Only matched surveys were included in inferential analysis. Wilcoxon signed-rank tests identified no statistically significant pre–post differences among matched responses. However, moderate-to-large effect sizes were observed across several outcomes, with the largest effects involving comfort using AI, critical thinking, and confidence differentiating accurate from misleading AI responses.







CONCLUSIONS

Based on the findings of this study, a single AI assignment did not result in statistically significant changes to confidence with or perception of AI in physical therapy education. Integration of AI clinical interview simulations may enhance DPT students' interviewing skills and assist with learning by providing meaningful feedback. Findings from this study contribute to the growing body of evidence exploring AI integration in physical therapy education. Understanding student perceptions and outcomes related to AI simulations can inform course design, ethical implementation strategies, and prepare future clinicians to practice effectively within an evolving, technology-enhanced healthcare environment.

REFERENCES

Alodaibi, F., Beneciuk, J., Holmes, R., Kareha, S., Hayes, D., & Fritz, J. (2021). The Relationship of the Therapeutic Alliance to Patient Characteristics and Functional Outcome During an Episode of Physical Therapy Care for Patients With Low Back Pain: An Observational Study. *Physical therapy*, *101*(4), pzab026. https://doi.org/10.1093/ptj/pzab026

Apeldoorn, A. T., Swart, N. M., Conijn, D., Meerhoff, G. A., & Ostelo, R. W. (2024). Management of low back pain and lumbosacral radicular syndrome: the Guideline of the Royal Dutch Society for Physical Therapy (KNGF). *European journal of physical and rehabilitation medicine*, *60*(2), 292–318.

Blanco, M. A., Nelson, S. W., Ramesh, S., Callahan, C. E., Josephs, K. A., Jacque, B., & Baecher-Lind, L. E. (2025). Integrating artificial intelligence into medical education: a roadmap informed by a survey of faculty and students. *Medical education online*, *30*(1), 2531177. https://doi.org/10.1080/10872981.2025.2531177

Medenica, V., Ivanović, L., Ristić, I., & Čolić, G. (2023). *Artificial intelligence in occupational therapy and special education and rehabilitation.* Scientific Conference SANUS. https://doi.org/10.7251/ZSAN2302033M