E-Poster

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A Novel Video-Based Peer-to-Peer Mobile Application Enhances Walking Aid-Related Competencies in Healthcare Trainees

Topic: Education (Medical Student, Residency & Post-Graduate)

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BACKGROUND

Medical students, medical residents, and nursing students often receive limited education on walking aid prescription and assisted gait patterns. Physicians and nurses, however, are highly involved in the prescription and distribution of walking aids. Existing educational resources on walking aids for learners tend to lack hands-on practice and specific feedback. Video- and app-based teaching have been used to enhance learning and practical skill in other areas of healthcare education but have not yet been explored with respect to teaching safe walking aid use. This investigation aimed to: a) evaluate how a novel interactive video feedback-based educational mobile application changes comfort with and knowledge of walking aid skills in healthcare trainees; and b) describe the usability of the novel app.

METHODS

Sixty healthcare trainees (4 physiatry residents, 22 medical students, 18 nursing students, 10 occupational therapy students, 6 physical therapy students) participated. During a single testing session, participants used the educational app in pairs with their trainee peers to learn how to fit and perform assisted gait with axillary crutches (AC) and four-wheeled walkers (4WW). Comfort with and knowledge of fitting and assisted gait with AC and 4WW was measured before, after, and 4 weeks after the app intervention using Likert-style questions. Non-parametric longitudinal analyses were performed to evaluate effects. The tool's usability was measured via the System Usability Score (SUS).

RESULTS

The trainees' perceived comfort with teaching the four walking aid skills to patients increased ($p < 0.001$ for all skills) from before to after use of the mobile application. Similar increases were seeing with subjective knowledge of the four skills ($p < 0.001$ for all skills). These increases were maintained at four weeks post-intervention. The mean (SD) SUS score was 78.0 (15.2).

CONCLUSION

This novel interactive mobile application increased healthcare trainees' comfort with and knowledge of common walking aid-related skills, and the trainees felt the application had good usability. Using interactive technology to teach physical skills may enhance professional competency, particularly in the realm of walking aid fitting and gait patterns.

Statement of Disclosures

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