



Hybrid Education to Improve Knowledge, Skills, and Self-Efficacy Regarding Safe Patient Handling

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Research Question

For occupational therapy students, can a hybrid online evidence-based course increase knowledge, skills, and self-efficacy regarding safe patient handling?

Significance to OT

AOTA's Vision: Occupational therapy maximizes health, well-being, and quality of life for all people, populations, and communities through effective solutions that facilitate participation in everyday living.

The Occupational Therapy Practice Framework, (3rd ed.) is a framework for the application of evidence-based safety interventions.

Centers for Medicare and Medicaid Services and the U.S. Department of Health and Human Services established goals to make healthcare more reliable, cost effective, and safer with the reduction of falls a primary concern.

Evidence suggests some of the more severe practice errors are the result of a patient falling during a transfer (Mu, Lohman, & Scheirton, 2005).

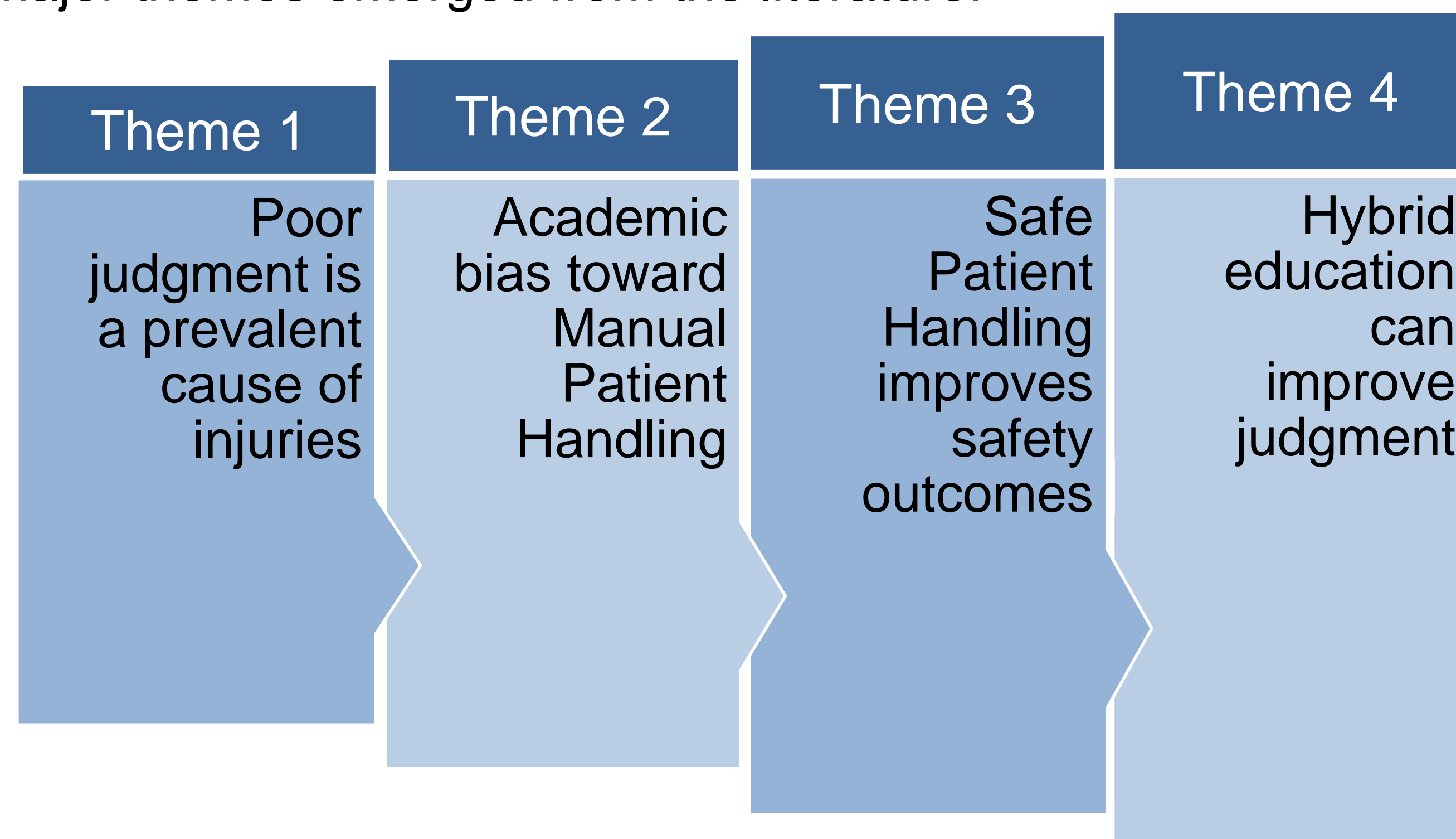
Safe Patient Handling methods reduce patient and staff injuries and Workers' Compensation costs due to practice errors (Collins, Wolf, & Evanoff, 2004).

Literature Review

Critically Appraised Topic (CAT) Portfolio included:

- A total of 17 studies from 16 journals
- All studies from allied health and education journals

Four major themes emerged from the literature:



Methods: Participants

Convenience sample of Occupational Therapy students ($n=16$) in the third semester of their professional Master's Degree program enrolled in Occupational Analysis and Adaptation

Homogenous student healthcare experience

All students had access to the online content through the electronic learning management system used by the participating University

Methods: Design and Intervention

This is a mixed methods quasi-experimental pre-test and post-test design.

Pedagogical and Instructional Techniques:

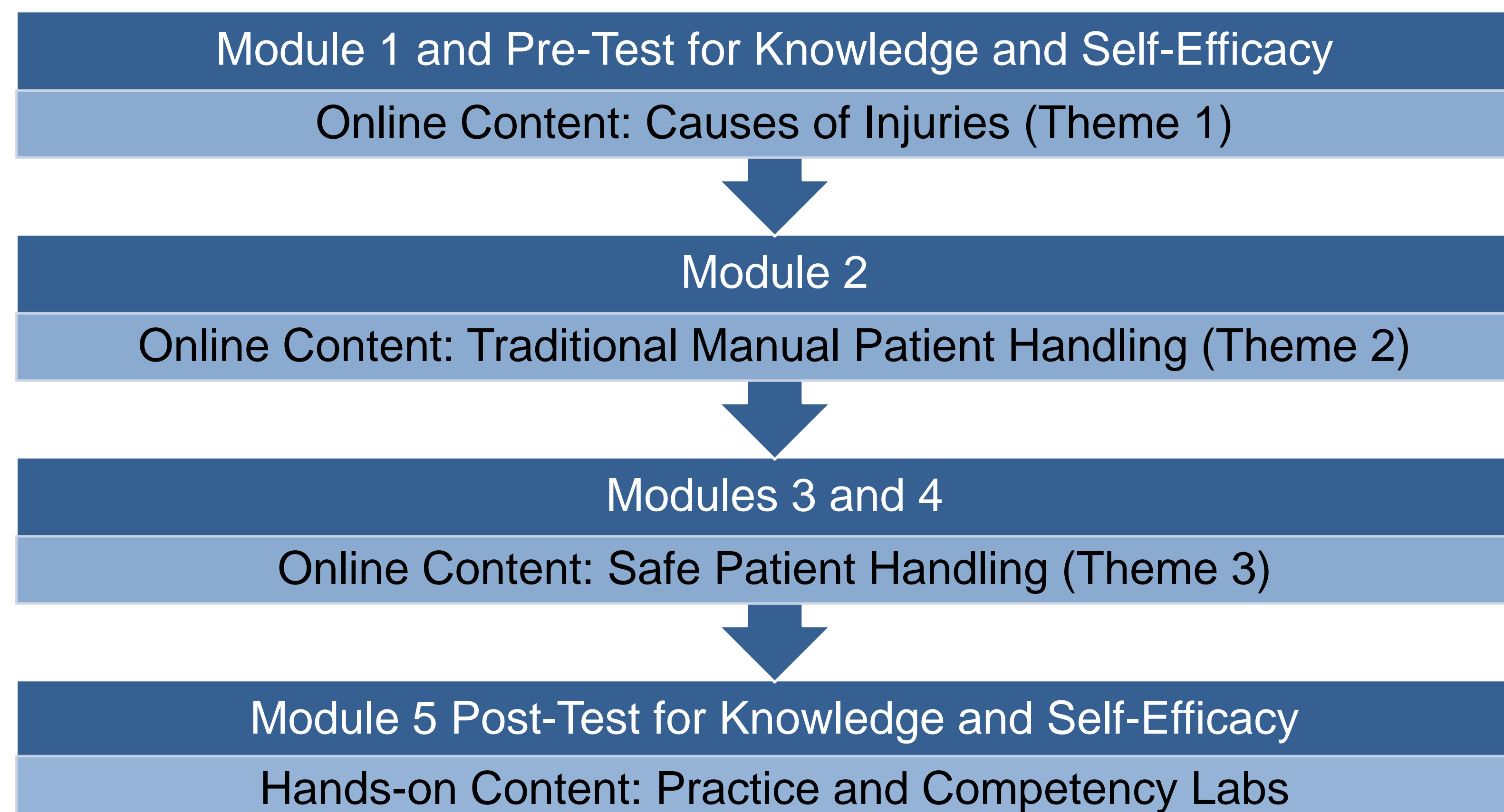
- Constructivist instructional theory
- Analysis Design Development Implementation Evaluation (ADDIE) Model for internet-based learning
- Case study method

Application of Systems Theory:

- The Occupational Therapy Practice Framework (3rd ed.)
- The Model of Human Occupation
- The Interdisciplinary Patient Safety Practice Guideline

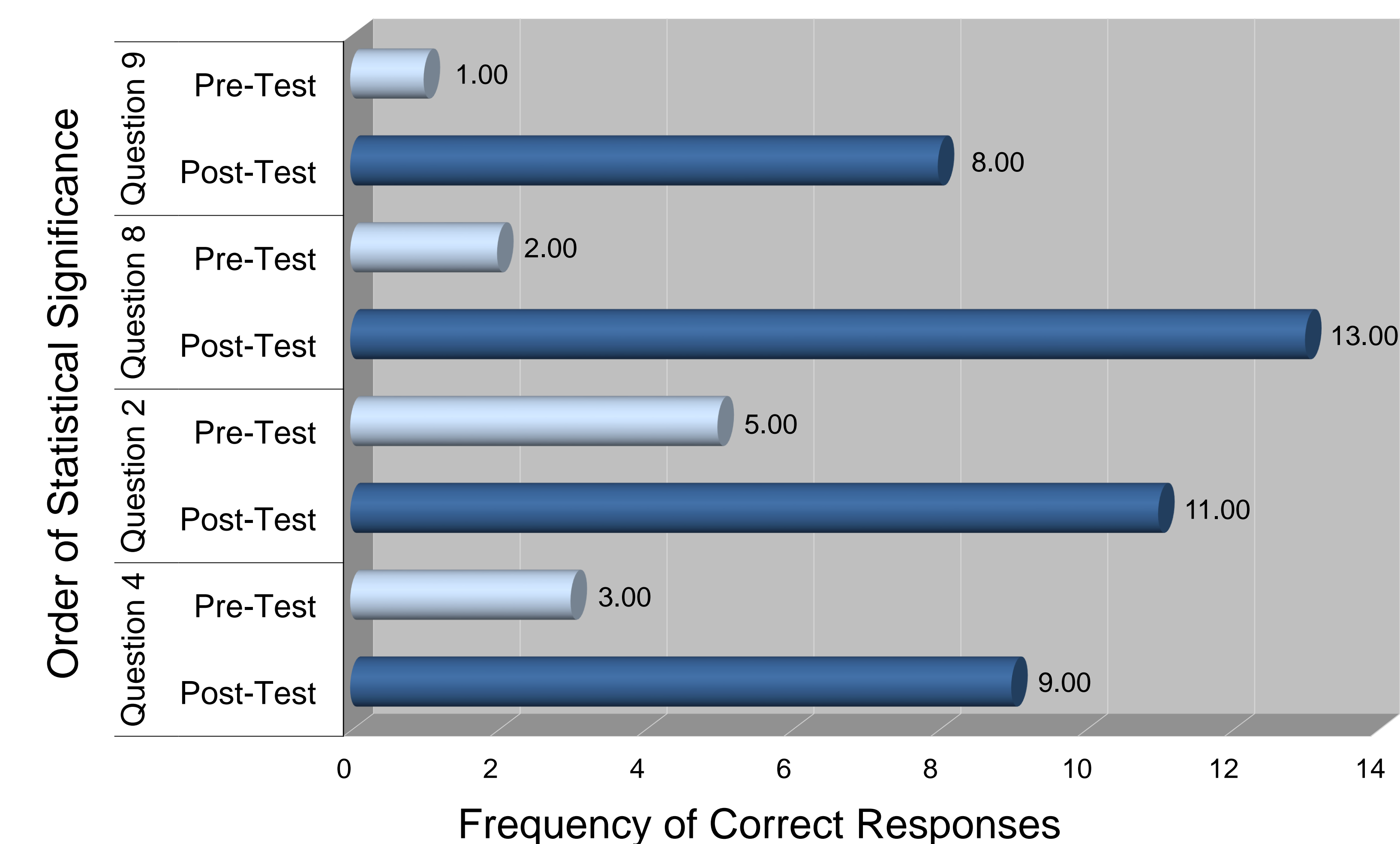
Intervention:

- 5 weeks, 5 modules
- Pre-intervention knowledge and self-efficacy test
- Sequential weekly online content spanning 4 weeks
- Practice lab for skill demonstration and hands-on experience
- Competency assessment lab with random scenarios
- Post-intervention knowledge and self-efficacy test



Outcomes

Knowledge and Self-Efficacy Responses



Quantitative data identified four statistically significant questions ($p < .05$) for improved knowledge and self-efficacy

- Question 9: Use of a specific type of lift equipment $t(15) = 9.59, p < .05$
- Question 8: Knowledge to build upon traditional patient handling methods $t(15) = 3.30, p < .05$
- Question 2: Why practice errors occur $t(15) = 2.70, p < .05$
- Question 4: Recommend a transfer method for an older adult with cognitive and mobility impairments that requires moderate assistance for transfers $t(15) = -2.45, p < .05$

Competency Lab: 75% of the students scored a 3 (Accomplished Performance) on a 1 to 4 scale

Qualitative data demonstrated improved knowledge, application, ability to appraise situations, and formulate safe and appropriate interventions

Summary

Hybrid online education improved knowledge, skills, and self-efficacy for safe patient handling with occupational therapy students.

Students recognized the benefit of deliberate communication with the patient prior to the transfer to assess patient related values, performance skills, and precautions related to motivation for engagement in the transfer

Students valued hands on training regarding Safe Patient Handling Methods (Pre-Test 63%, and Post-Test 100%).



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