Comparison of Cooperative Teams While Using the Haptic Intravenous Simulator

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Introduction

Cooperative Learning:
Active learning strategy. Teams work together to complete a task.

Elements
• Positive Interdependence:
  "Sink or Swim Together"
• Promotive Interaction

Team
• Accountability
• Skills
• Processing

Haptic IV Simulators:
• Teaches process
• Tactile feedback
• Performance score

Purpose
Evaluate effectiveness of cooperative learning teams of nursing students learning IV insertion using a haptic IV simulator.

Variables

Methods

Post-test only experimental design evaluated differences between team members on:
• Initial performance score
• Number of attempts to be successful on the haptic IV simulator

Convenience sample randomized into team assignment (A, B, or C). Then randomized into IV simulation teams. Each team contained 3 team members working together using elements of cooperative learning. In the cooperative teams, A was the 1st, B was the 2nd and C was the 3rd learner to attempt the simulation.

Data

Results

Initial Performance Score:
Team assignment accounted for 15% of the variance in initial performance score. Team assignments B and C scored higher than A. C learned as a result of observing and assisting A.

Number of Attempts:
Team assignment was not significant but similar to results from a past study.

Conclusions
Cooperative team members learn as a result of observing and assisting each other. Structuring teams using positive interdependence allows members to observe, assist and promote each others efforts as they work to achieve the teams goal. This study increases the generalizability of this active learning strategy.