

# Learning Together for Safety

## An Experiential Interprofessional Activity to Teach Medical Students How to Safely Handle Patients

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### THE PROBLEM

Medical students learn the components of the physical exam with the practice “patients” seated on an exam table or lying in bed. When they begin clinical rotations they are confronted with the task of helping patients move from interview chair to exam table or helping a bedbound patient stand up.

Patient mobility is important:

- Need to move patient to bed or table for exam
- Must move patient to examine lungs, spine, sacral area
- Must stand patient to assess station and gait

Safe patient handling skills are important for preventing injuries in healthcare workers and in patients. Incorrect techniques can cause harm:

- Health care worker injury, esp. back or neck injury
- Patient injury
  - Fractures due to falls
  - Shoulder injuries due to pulling on arm
  - Shearing injuries to skin

These skills are rarely included in the medical curriculum.

### PROGRAMMATIC INNOVATION

Physical therapists (PT) are the movement science experts. In this intervention PT students were enlisted to teach MD students safe techniques for moving patients.

Participants:

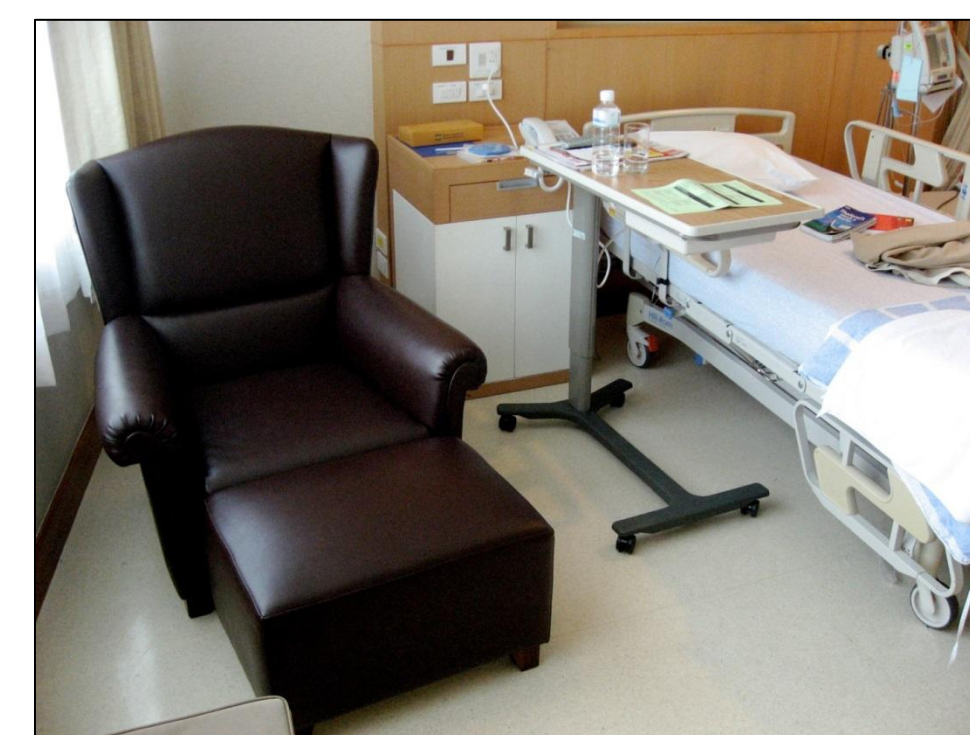
- 2nd year medical students (MD) in their Practice of Medicine course (preparation for clerkships)
- 3rd year physical therapy (PT) students in their Professional Issues & Skill Development course in which they learn teaching skills and are expected to participate in a service project

Design & planning

- Session format designed by MD and PT faculty
- PT students prepared materials, planned activities

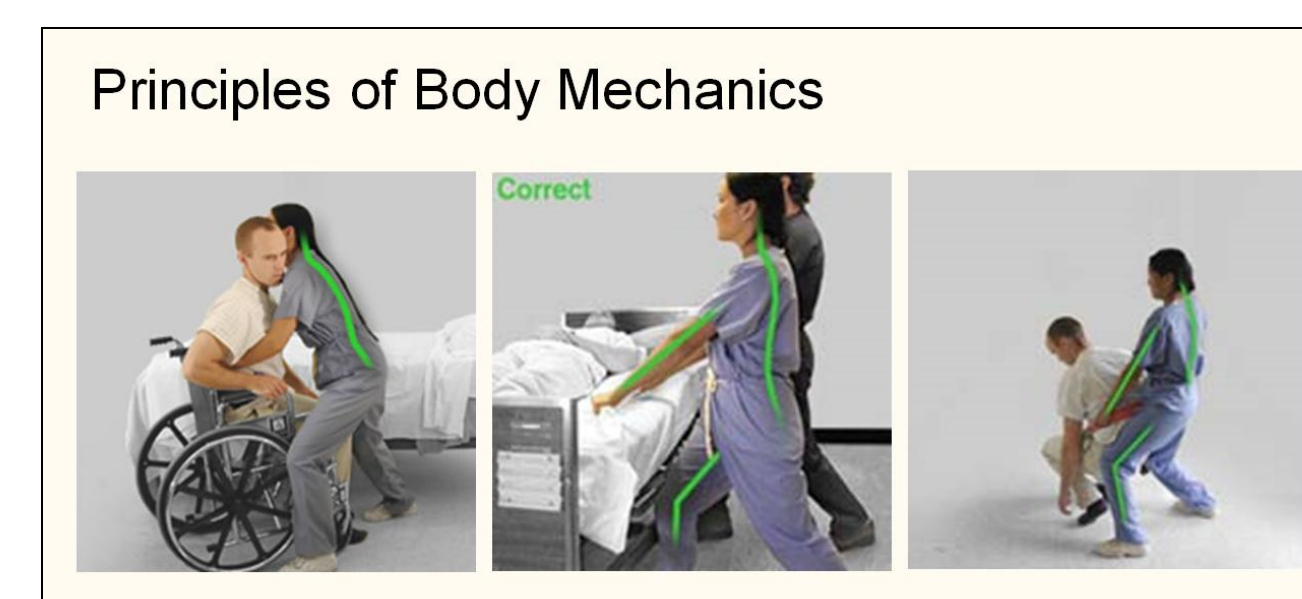
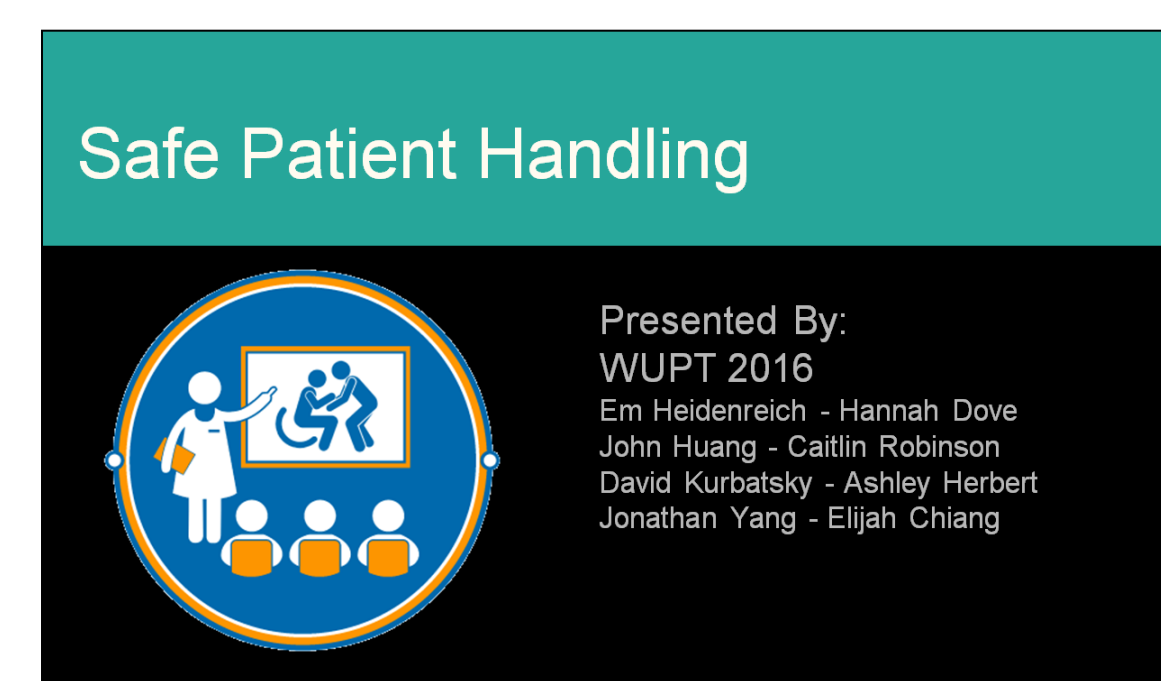
Structure:

- 20 min didactic presentation
- 60 min hands-on practice in Clinical Skills Suite
- MD students practiced on each other under PT student supervision
  - 30 min in simulated hospital room
  - 30 min in simulated exam room



### SKILLS TAUGHT

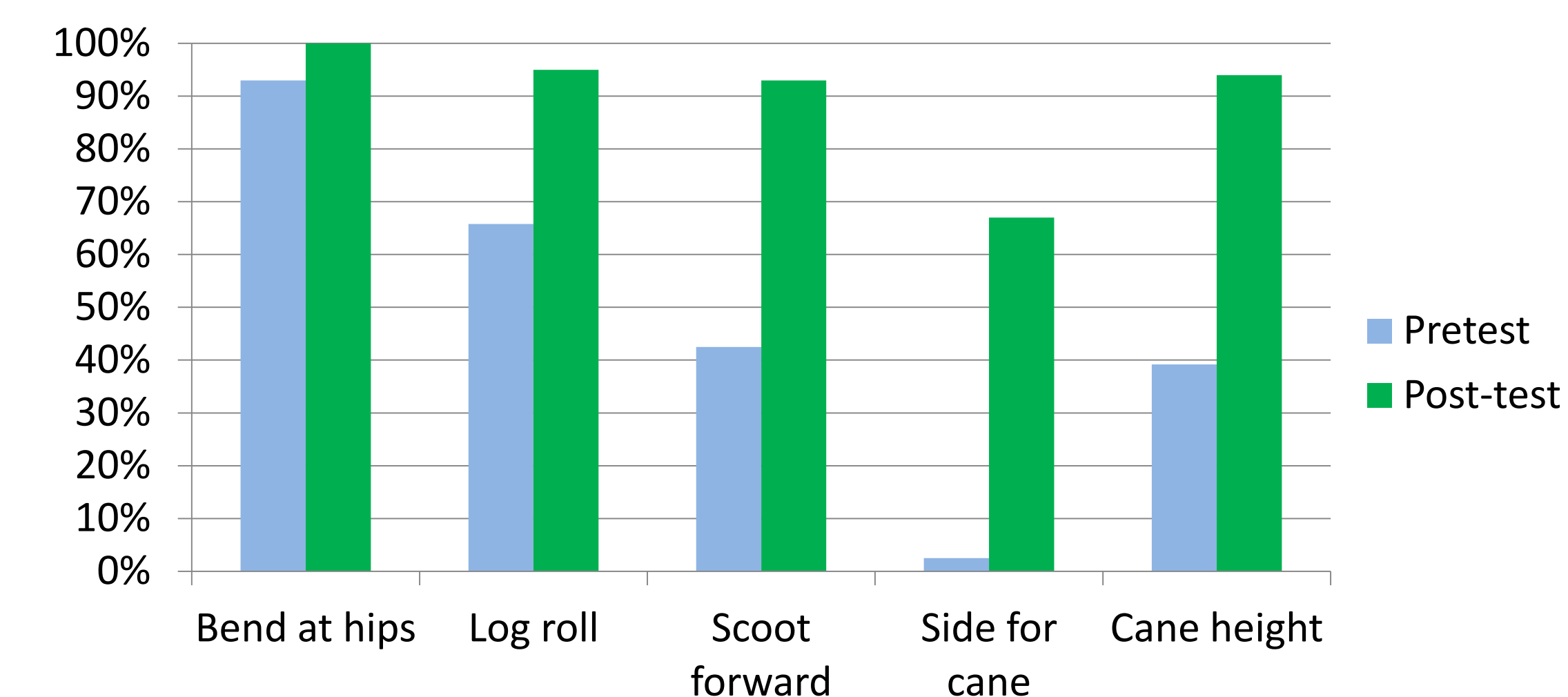
- Basic principles of body mechanics
- Basic patient assessment (ability to move, weight bearing status, balance)
- Patients needing special precautions (e.g., spinal precautions, amputees, morbidly obese)
- Ambulation techniques with cane or walker
  - How tall should cane be?
  - Use on which side – good leg or bad leg?
- Exam room mobility (chair to exam table & back)
- Hospital bed mobility
  - Supine to sit, sit to stand, stand to sit
  - Logrolling a patient
  - Moving patient up in bed using a draw sheet



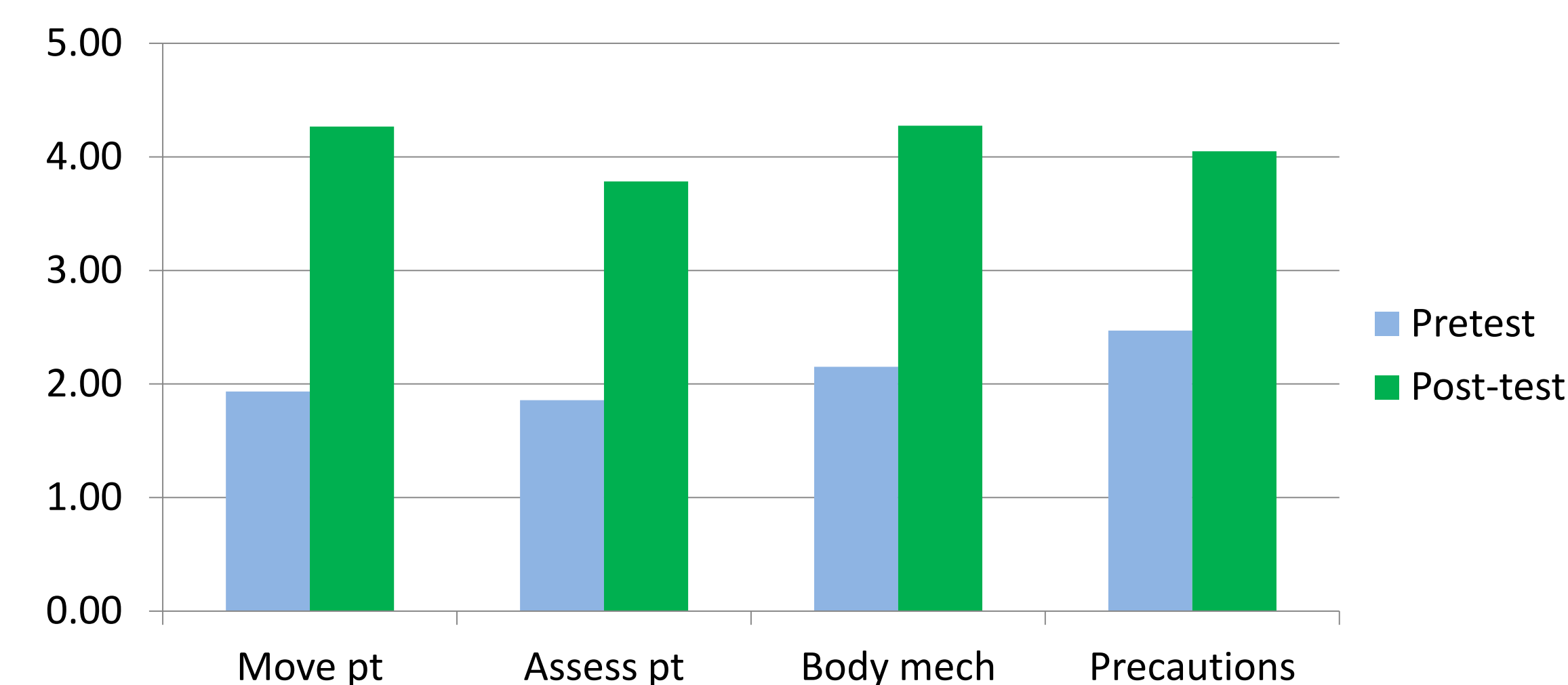
### ASSESSMENT / RESULTS

MD students took a brief pretest and a posttest covering knowledge, attitudes, confidence in skills

- Knowledge score increased from 49% to 90% correct ( $p < 0.001$  by t-Test)

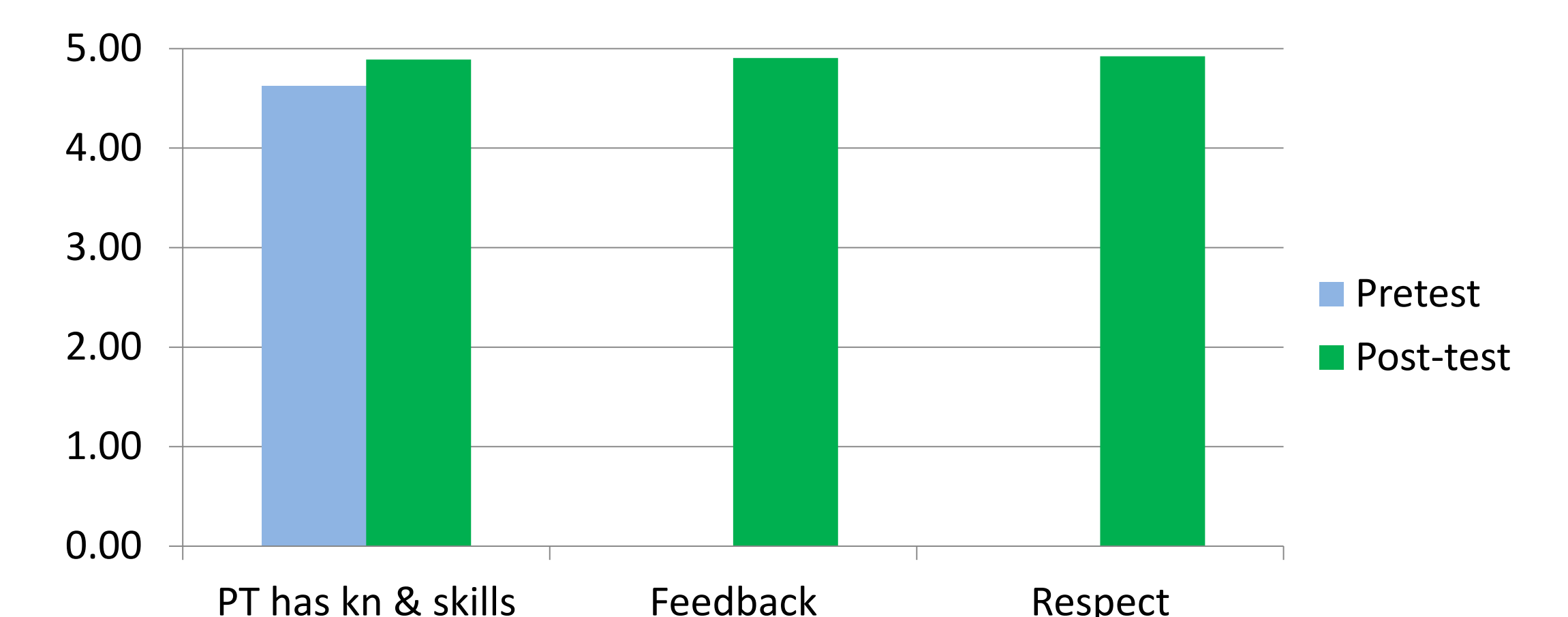


- Confidence in applying the skills (1-5 Likert scale) increased from 2.10 to 4.09 (for each of the 4 questions: chi square 0 and paired t-Test  $< 0.001$ )



- MD attitudes about PT's knowledge and skills

- Excellent at baseline
- Slightly increased from 4.62 to 4.89 (chi square 0.02; paired t-Test  $< 0.001$ )
- Excellent post-session assessment of PT students' instructive feedback (4.90) & respect (4.92)



- Observation – they had fun!



### LITERATURE REVIEW

Medline search found 1 article about teaching medical and nursing students how to safely move patients. Search with medical librarian found same 1 article.

- Safe moving and handling of patients: an interprofessional approach. Anderson MP et al *Nursing Standard* 2014.28(46):37-41
  - Interprofessional team developed an e-learning resource (online module) for medical and nursing students

### CONCLUSIONS / NEXT STEPS

- Medical students have variable knowledge and little experience in patient handling
- A relatively simple intervention resulted in improvements in knowledge and confidence
- MD students respected the PT student-teachers

- Strengths of this session include

- Interprofessional involvement
- Both didactic and experiential skills training
- Enjoyable activity for students
- Simple format – readily replicated at other medical schools with affiliated schools of physical therapy or nursing

- Areas for future work include:

- Assessing retention of skills
- Consideration of involving learners in other specialties

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