



## A Descriptive Account of Pharmacy Education Using Near-Peer Teaching

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## Objectives

- Define near-peer teaching and the potential value it has to pharmacy education
- Review the literature on near-peer teaching models in health care practices
- Describe the realities of this teaching model in pharmacy education within a hospital setting
- Discuss ways to implement a near-peer teaching model in pharmacy education




## Definitions

- **Near-Peer Teaching:** The provision of learning support to junior students by their senior peers



Med Teach 2007;29(6):523-524.; Med Teach 2007;29(6):583-590




## Near-Peer Teaching

Example Hierarchy for Near-Peer Teaching in Pharmacy


```

    graph TD
      A[Clinical Pharmacist] --> B[PharmD Student]
      B --> C[Pharmacy Resident]
      C --> D1[Fourth-Year Pharmacy Student]
      C --> D2[Fourth-Year Pharmacy Student]
      C --> D3[Fourth-Year Pharmacy Student]
      C --> D4[Fourth-Year Pharmacy Student]
    
```




## Definitions

- **Near-Peer Teaching:** The provision of learning support to junior students by their senior peers
- **Peer Teaching or Peer-Assisted Learning:** Teacher and learner are at the same level




Med Teach 2007;29(6):523-524.; Med Teach 2007;29(6):583-590




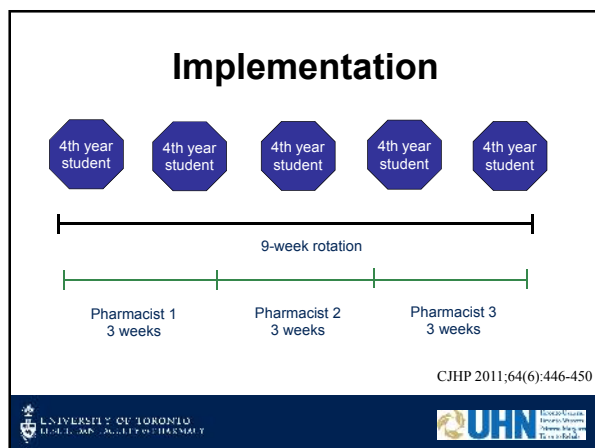
## Peer Teaching in Canadian Pharmacy Schools

- **The Development and Evaluation of a Student Pharmacist Clinical Teaching Unit Utilizing Peer Assisted Learning.**
- **Rationale:** Demand for SPEP sites exceeds supply.



CJHP 2011;64(6):446-450





### Results

- More drug-related issues were documented:
  - CTU = 768
  - Previous year = 151
- Overall, positive satisfaction with the program for both the student and preceptor

CJHP 2011;64(6):446-450

### Advantages of Near-Peer Teaching in Pharmacy Education

- Limited number of rotation sites
- Alleviate workload pressure for pharmacist
- Pharmacy practice has moved towards taking on a much larger clinical role
- Fosters a culture that places importance on the transmission of wisdom to future pharmacists

Med Teach 2007;29(6):523-524.

### Value of Near-Peer Teaching to Students

- New experiences linked to familiar curriculum
- Junior students identify more with senior students
- Builds leadership and confidence
- Offers students an alternative method for studying
- Prepares pharmacy students for their future role as educators

Med Teach 2007;29(6):523-524.

### Potential Drawbacks

- Senior students may not benefit as much
- Feelings of distrust among peers
- Reduces contact time with more experienced clinicians

Med Teach 2007;29(6):583-590.

### IMPLEMENTATION OF A NEAR-PEER TEACHING MODEL IN PHARMACY EDUCATION: EXPERIENCES AND CHALLENGES

Christine Leong, Marisa Battistella and Zubin Austin  
CJHP-Vol 65, No.5- September-October 2012

## The Educational Setting

- Multi-disciplinary, outpatient hemodialysis (HD) unit that serves approximately 300 HD patients
  - Located in a downtown teaching hospital

### The Participants

- Attending Pharmacist
  - Over 8 years of experience and previous with near peer teaching

Senior  
Students

- PharmD Student
- Pharmacy Resident

Junior  
Students

- 3<sup>rd</sup>-year co-operative (co-op) student
- 4<sup>th</sup>-year Structured Practical Experience Program (SPEP) student

CJHP 2012; 65(5): 394-398

## Structure of Clinical Rotation

- Each student was responsible for providing pharmaceutical care to **at least 8** assigned patients throughout the rotation
- All students were also expected to participate in education activities such as:
  - Nephrology teaching rounds (twice a week)
  - Nephrology journal club (weekly)
  - Interprofessional patient rounds
  - Therapeutic discussions with the pharmacist
  - Patient discussions with the pharmacist
  - Educational session with the nurse or dietitian
  - Pharmacy department presentations

CJHP 2012; 65(5): 394-398

## Teaching Activities

### Box 2. Examples of Senior Students' Teaching Activities with Junior Students

#### Resident

Chart review  
Best possible medical history, medication reconciliation  
Patient interview  
Patient work-up and therapeutic thought process  
Documentation

#### PharmD student

Appropriateness of drug therapy  
Important studies supporting or refuting an intervention used in practice

CJHP 2012; 65(5): 394-398

## Documentation of Student Experiences

- Pharm D student present for 4-6 hrs daily
- Qualitative info was collected over 3 week period
- Methods used for collecting information were guided by ethnographic principles

CJHP 2012; 65(5): 394-398



- Four recurring themes emerged with implementation of the near-peer teaching model

CJHP 2012; 65(5): 394-398

## Theme 1: Organization and Time Management

- Managing the Schedule**
  - Students found **organization and effective planning** were essential to complete all of the rotation related activities
  - Schedule had to be modified regularly
- Repetition of Information**
  - Information was repeated when multiple teachers were involved in reviewing a junior student's care plan and during interprofessional rounds

CJHP 2012; 65(5): 394-398

## Theme 2: Perception of Roles and Structure of the Teaching Model

- **Role as a Teacher**
  - Senior students gave junior students different perspectives on patient-related issues:
    - PharmD student was very clinically knowledgeable
    - Resident imparted skills related to conducting thorough and efficient patient reviews

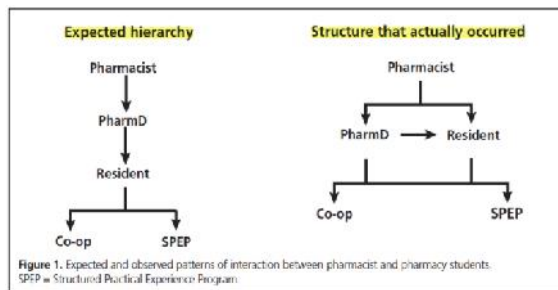
CJHP 2012; 65(5): 394-398

## Theme 2: Perception of Roles and Structure of the Teaching Model

- **Pattern of Participation During Group Discussions**
  - Junior students were less likely to respond to clinical questions
  - During therapeutic discussions, attending pharmacist allowed junior students the opportunity to first answer the more fundamental questions (e.g. related to pathophysiology/RF of various conditions) and asked senior students direct questions related to evidence and actions they would take in a specific clinical scenario

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## Hierarchy



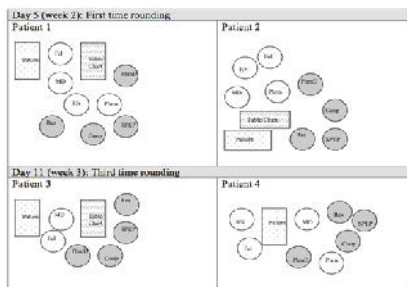
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## Theme 3: Opportunity for Cognitive Congruence

- In this model, the junior students discussed information with the senior students more often than with the pharmacist
- Near-peers may understand the problems and challenges that students face better and appear to be in a better position to explain difficult concepts at an appropriate level

CJHP 2012; 65(5): 394-398

## Theme 4: Culture Learning & Integration into the Interprofessional Team



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## What did the authors conclude?

- Given the increasing demand for clinical placements, near-peer teaching provides a unique approach to meeting this need.
- **Limitations:**
  - Generalizability to other practice specialties
  - Variances in individual student motivation and personalities
  - Learning outcomes were not measured

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## HOW IS NEAR PEER TEACHING DONE IN PRACTICE?

### THE PRACTICAL SIDE

## How is Near-Peer teaching done in practice?

- **Define objectives and rules**
  - Students are aware of this rotation before arrival
  - During first meeting- establish working environment/dynamics
- **Define responsibilities of key stakeholders**
  - Students themselves
  - Other pharmacists
  - Other allied health (RNs/dietitians)

## How is Near-Peer teaching done in practice?

- **Prepare ahead of time!**
  - List of items to discuss on day one
  - Schedules
  - Patient selection
  - Objectives/Learning Contracts
  - Presentations/Dates



## How is Near-Peer teaching done in practice?

- **Patient work ups**
  - Reviewed all together in beginning
    - Pharm D to go first
  - Pharm D to review with SPEP
  - Resident to see pts with SPEP



## How is Near-Peer teaching done in practice?

- **Evaluation of preceptor**
  - Monitor my style weekly
- **Evaluations of Students**
  - Weekly/q2weeks
  - Separately
  - Will ask for feedback from resident/PharmD



## How is Near-Peer teaching done in practice?

- **Space**
  - Find various spots for working- pharmacy/library
  - Meeting spots for pt discussions vs therapeutic discussions



### How is Near-Peer teaching done in practice?

- **Take home messages**
  - Be organized and creative
  - Establish the dynamics from Day One!
  - It does save time!
  - It is way more fun!



### Acknowledgements

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