Peer Teaching in a Physical Diagnosis Course

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Educational Objectives/Participant Outcomes

- Identify effective components of a peer instructor experience for medical students
- Discuss feedback from participating students
- Describe the implementation of a peer instructor program
- Explore evaluation tools to assess learner skills acquired through participation in a peer instructor program
Peer teaching in higher education became prevalent during the early 1970s. Many of the peer education models at the undergraduate level include:

- Proctoring, students learning groups, and student counseling of peers.

Over the years, peer teaching became common in many advanced-degree graduate school programs.
Relatively underutilized and few Articles describe:

- information gained that might aid in improving the curriculum
- the benefit to the peer educators themselves.
- valuable skills and knowledge are gained
- peer-teaching in medical school significantly increased USMLE Step 1 and Step 2 scores and final medical school GPA for students who participated as peer educators in the program. (Wong et. al.)
Challenges and Needs

- Increasing class size
- Fewer available faculty
- Benefits of small group learning

162 students
- 13–15 4th year students per 4 week block
- Each 4th year Peer Instructor has a group of 4 2nd year students (3 labs)
Integration into 4th Year FM Rotation

- 4th year students had previously participated in 1 day Pain Seminar as Peer Instructors
- 4 week rotation
  - Focus is on Physical medicine and rehabilitation (PM&R), and Palliative (end-of-life) care
  - Review of Neurology and Musculoskeletal Examination
  - Patient/Family Education
  - Peer Education – (student presentations)
    - Ethics of Treating Pain; Physician Assisted Suicide; False Hope; Innovations in Advance Care Planning; Hospice eligibility requirements
Students, on completing this rotation will be able to:

- **Provide Patient Education**
  - Describe strategies used in preparing for a bad news discussion
  - Review necessary steps of the family conference process
  - Discuss end-of-life issues regarding patients and their families notably truth-telling and informed consent
  - Review components of an effective pain contract

- **Provide Peer Education**
  - Develop and provide an effective presentation to stimulate discussion and conversation regarding one ethical issue in PM&R and/or palliative medicine
  - Demonstrate effective group interaction to develop a palliative care plan
  - **Effectively review and demonstrate clinical skills with junior medical students**

- **Provide Self Education**
  - Demonstrate ability to reflect on needs of life-long learning
  - Describe a specific implementation plan using appropriate resources to achieve personal life-long learning
Dr. Hortense Russell
Peer Instructor Training

Mandatory review of material prior to each session
- Access to all course material provided

Mandatory meeting with Lab Instructor prior to each session for:
- Review class material and skills
- Review teaching and learning objectives
Peer Teaching Session

- 1 peer instructor per 4 learner
- 2 peer instructors per 6 learners
- Peer instructor with Faculty
- Faculty observation and input
  - Access to faculty
- Opportunity to serve as mentor
Physical Diagnosis Class
Post Peer Teaching Feedback

- Peer instructor response – many
- Faculty feedback to peer instructors
- Learner feedback
At the conclusion of the rotation all 4th year peer instructors were asked to participate in our study. Participation involved completing a 10 item questionnaire. Participation in the questionnaire was voluntary. Participation had no impact on their grade for the rotation. To maintain integrity students were informed prior to participation that no identifying information would be collected.
36 (of 96) fourth year students responded to the questionnaire.

Ages ranged from 25–37 years old.

There were

- Male n = 12
- Female n = 24
Prior Teacher Training

Students were queried on teacher training/experience prior to medical school

- 72% (n=26) reported they had no prior training in teaching
- 28% (n=10) reported they had prior training in teaching
Students were asked to rate their performance satisfaction as a peer instructor:

- 89% (n=32) reported they were satisfied with their performance.
- 11% (n=4) reported they were neither satisfied nor unsatisfied with their performance.
- Surprisingly, none reported dissatisfaction with their performance.

The pie chart shows the distribution of responses:

- 45% Strongly Agree
- 44% Somewhat Agree
- 11% Neither Agree nor Disagree
Students were asked to assess and compare how comfortable they were in their teaching abilities prior to and after the rotation:

- 28% (n=10) reported they felt more comfortable in their teaching ability.
- 72% (n=26) reported there was no change in their comfort teaching.

![Comfort in Teaching Ability Pie Chart]

- Better 28%
- About the same 72%
Students were asked to assess and compare how comfortable they were in their abilities performing a physical examination prior to and after the rotation:

- 42% (n=15) reported they felt more comfortable performing a physical examination after the rotation.
- 58% (n=21) reported there was no change in their comfort performing a physical examination after the rotation.
- So the experience helped almost half of the students improve their own physical exam skills.
Students were asked if they considered the overall value of serving as a peer instructor enhanced their own learning:

- 75% (n=27) reported they considered serving as a peer instructor to have enhanced their own learning.
- Only 1 student indicated they considered serving as a peer instructor to have not enhanced their own learning.
- 22% (n=8) reported they neither agree or disagree that serving as a peer instructor to have not enhanced their own learning.
Students were asked based on their experience as a peer instructor if participation were optional whether they would volunteer as a peer instructor:

- 25% (n=9) reported they definitely would
- 31% (n=11) reported they probably would
- 25% (n=9) reported they might or might not
- 11% (n=4) reported they probably would not
- 8% (n=3) reported they definitely would not
Students were asked based on their experience as a peer instructor if participation were optional whether they would recommend participation to another student.

- 39% (n=14) reported they definitely would
- 25% (n=9) reported they probably would
- 28% (n=10) reported they might or might not
- 3% (n=1) reported they probably would not
- 6% (n=2) reported they definitely would not
Students were asked based on their experience as a 2\textsuperscript{nd} year student if they thought having peer instructors would have been beneficial to them.

- 53\% (n=19) reported they thought it definitely would have been beneficial.
- 22\% (n=8) reported they thought it probably would have been beneficial.
- 11\% (n=4) reported they thought it might or might not have been beneficial.
- 14\% (n=5) reported they thought it probably would not have been beneficial.
- 0\% (n=0) reported they thought it definitely would not have been beneficial.
Students were asked about their teaching experience prior to medical school

- 73% reported no prior teaching experience
- 27% reported prior teaching experience
- When comparing prior experience to self-assessment of comfort of teaching abilities after rotation there was little change
56% (n=20) of students said they either definitely or probably would volunteer as a peer instructor if it were optional.

8% (n=3) said they definitely would not volunteer as a peer instructor if it were optional.

By contrast under similar circumstances:

65% (n=23) said that they either definitely or probably would recommend participation to another student if it were optional.

8% (n=3) said they would not recommend participation to another student if it were optional.
Students were asked if they considered the overall value of serving as a peer instructor enhanced their own learning

- 75% (n=27) reported they considered serving as a peer instructor to have enhanced their own learning

Students were asked based on their experience as a 2nd year student if they though having peer instructors would have been beneficial to them

- 75% (n=27) reported they thought it either definitely would or probably would have been beneficial to them
Thank You.

Comments or Questions?