



# Changes in Physician Assistant and Occupational Therapy Students' Knowledge and Attitudes after Interprofessional Case Studies: a Pilot Study

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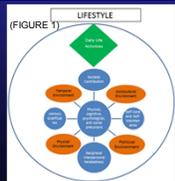


## Background & Purpose

- In 2011, the Interprofessional Education Collaborative (IPEC) released core competencies for interprofessional collaborative practice: values/ethics for interprofessional practice, roles/responsibilities, interprofessional communication, and teams and teamwork.<sup>1</sup>
- The purpose of this pilot study was to determine if exposure to interprofessional education activities during the didactic year would affect the knowledge and attitudes of physician assistant (PA) and occupational therapy (OT) students toward the others' profession

## Methods

- In the Fall of 2013, 40 PA and 22 OT students were placed into small groups.
- Students received detailed instruction on the Lifestyle Performance Model, (Figure 1)—a different paradigm than the medical model under which PA students learn.



## Methods (cont.)

- Each small group:
  - Was assigned 1 of 4 patient cases
  - Provided discipline-specific recommendations
  - Presented their recommendations to the entire group.
- Using a pre-/post-test design, students were administered two surveys:
  - Professional Entry Level Scope of Practice (SOP) Survey\* to assess knowledge about the other profession's scope of practice
  - (Modified) Readiness for Interprofessional Learning Scale (RIPLS) Questionnaire<sup>2</sup> to assess their attitudes about collaboration in healthcare.
- The mean number of students who completed both the pre- and post- SOP and got the "correct" answers was compared using a students' t-test.
- The proportion of students who agreed vs. disagreed with each statement on the RIPLS Questionnaire was analyzed using a Chi-squared test.
- The overall pre-/post- changes were analyzed, and sub-analyses by profession were also performed.

\*Modelled after the Interprofessional Education and Practice (IPEP) Professional Entry Scope of Practice Checklist from the University of Arizona, adapted to include the PA and OT professions.

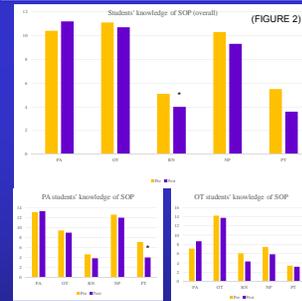
## Results

- 47 students completed both the pre- and post SOP survey
  - 28 were PA students, and 19 were OT students.
- 59 students completed both the pre- and post-RIPLS questionnaire.
  - 37 PA students completed the pre-; 40, the post-.
  - 22 OT students the pre-; 19, the post-.

## Results(cont.)

### Scope of Practice (SOP)

- The only overall change in knowledge was of what a registered nurse does (p=0.05)
- PA students' knowledge of a physical therapist's scope of practice changed, as well (p=0.005).
- All other measurements showed a non-significant change. (See Figure 2)



### (Modified) Readiness for Interprofessional Learning Scale (RIPLS)

- Students' attitudes started off positive, with a majority agreeing or strongly agreeing with all statements. (See Table 1)
- There were statistically significant NEGATIVE changes between the pre- and post-Questionnaires for eight of the seventeen (47%) statements
  - The OTs' attitudes changed regarding questions 7, 8, and 9; the PAs, regarding questions 4, 13, and 14

(Modified) Readiness for Interprofessional Learning Scale (RIPLS)	TABLE 1	
	PRE (%) (n=59)	POST (%) n=59
Q1: Learning with other students will help make me a more effective healthcare team member.	55 (93)	51 (86)
Q2: Patients would ultimately benefit if healthcare professionals worked together.	58 (98)	57 (97)
Q3: Shared learning with other students will increase my ability to understand clinical problems.	55 (93)	48 (81) <sup>a</sup>
Q4: Communication skills should be learned with other healthcare students.	54 (91)	43 (73) <sup>a</sup>
Q5: Team-working skills are vital for all healthcare students to learn.	56 (95)	55 (93)
Q6: Shared learning will help me to understand my own professional limitations.	51 (86)	45 (76)
Q7: Learning between healthcare students would improve working relationships.	55 (93)	46 (78) <sup>a</sup>
Q8: Shared learning will help me think positively about other healthcare professionals.	50 (85)	38 (64) <sup>a</sup>
Q9 <sup>b</sup> : I don't want to waste time learning with other healthcare students.	50 (85)	39 (66) <sup>a</sup>
Q10 <sup>b</sup> : It is not necessary for healthcare students to learn together.	44 (75)	38 (64)
Q11 <sup>b</sup> : Clinical problem-solving is best learned with students from my own school.	34 (58)	29 (49)
Q12: Shared learning with other healthcare professionals will help me to communicate better with other professionals.	53 (90)	46 (78)
Q13: I would welcome the opportunity to work on small group projects with other healthcare students/professionals.	44 (75)	31 (53) <sup>a</sup>
Q14: I would welcome the opportunity to share some lectures, tutorials, or workshops with other healthcare students.	50 (85)	39 (66) <sup>a</sup>
Q15: Shared learning and practice will help me clarify the nature of patients' problems.	48 (81)	43 (73) <sup>a</sup>
Q16: Shared learning will help me become a better team member.	52 (88)	47 (80)
Q17 <sup>b</sup> : I have to acquire much more knowledge and skill than other students in my school.	33 (56)	32 (54)

<sup>a</sup> Negatively worded question, so the inverse responses were used to determine students' attitudes.  
<sup>b</sup> p-value <0.05

## Representative comments

- (Theme) Differences in academic level and framework**
  - (From an OT student) "I don't feel that I learned a whole lot about PAs because first year students don't know a whole lot themselves."
  - (From a PA student) "It should be noted that the PAs have only been in their program for a few months ... We honestly do not have enough experience or education to adequately represent our profession, at this point..."
- (Theme) Unequal value for the activities**
  - (From an OT student) "...This activity was only worth 2% of my grade which is not representative of the required time and outside work we had to put into this."
  - (From an OT student) "...However, the different weighing of grades between projects made it seem as if this project wasn't as important to the PA program as a whole. Unfortunately, this was reflected in several of the PA students' attitudes about how much effort they were willing to invest in the project.
- (Theme) Include other professions**
  - "This type of inter-professional learning should be done with medical students and speech therapists as well."
  - "I feel like this exercise would have been more beneficial if we were presented with the tasks that other professions are capable of doing as well, such as PT, respiratory therapy, etc., instead of just OT."

## Discussion & Conclusions

- While initially discouraging, the outcomes from this pilot study helped the faculty to jointly redesign the interprofessional education portions of the PA/OT curricula. The redesign included:
  - Removing the theoretical model discussion
  - Introducing nine shared Clinical Medicine lectures to ensure similar baseline clinical knowledge, with two case studies
  - Assigning specific faculty members to case study groups to facilitate discussion.
  - Dedicating class time specifically to the cases
  - Evaluating content through standard testing for each discipline
- The faculty believe these changes will garner more collaboration and positive relationships in the future.

<sup>1</sup>Schmittl M, Blum A, Aschenbrenner C, Viggiano T. Core competencies for interprofessional collaborative practice: Reforming health care by transforming health professional education. *Acad Med*. (2011); 86: 1351  
<sup>2</sup>Parisek G, Bligh J. RIPLS: Readiness for Interprofessional Learning Scale. Minnesota: National Center for Interprofessional Practice and Education; 2013. [cited 06/18/15]. Available from: <https://naipce.org/resource/exchange/ripls-readiness-interprofessional-learning-scale>