

BACKGROUND

Interprofessional collaborative practice (ICP) is the standard of practice in patient care, and is considered essential in optimizing resource allocation and patient outcomes. Effective ICP is associated with high quality, ongoing interprofessional education (IPE) that includes clarity of professional roles and responsibilities as well as the value each profession brings to comprehensive patient care. IPE in entry-level health professions education helps enhance ICP when these new clinicians enter the work force.

There are several different models of IPE learning activities. IPE activities through community-based service learning have been shown to enhance student appreciation for ICP and professional responsibilities, teamwork and ethical considerations. However, community-based activities can be time-intensive and difficult to coordinate within the many demands of the didactic curriculum. Classroom-based activities are much easier to implement and more realistically achieved within a healthcare program, but limited literature exists supporting the impact of classroom-based activities on student attitudes toward ICP. Case-based activities can be used to provide IPE within the classroom and are a type of experiential learning designed to facilitate student understanding through application and reflection, improving assimilation of knowledge and enhancement of value placed on learned concepts. This study explored the use of interprofessional case-based group activities on interprofessional attitudes in the areas of teamwork, roles and responsibilities; patient-centeredness; interprofessional biases; diversity & ethics; and community-centeredness.

PURPOSE

The purpose of this study is to determine the influence of an interprofessional case-based group activity on the attitudes of physical therapy (PT) and occupational therapy (OT) students toward interprofessional collaborative practice (ICP).

METHODS

Students completed the Interprofessional Attitudes Scale (IPAS), a validated tool used to assess learners' perceptions and understanding of the value and function of interprofessional learning and collaboration, in the first and last weeks of a 10-week course. Questions were delivered online through Qualtrics in the format seen here:

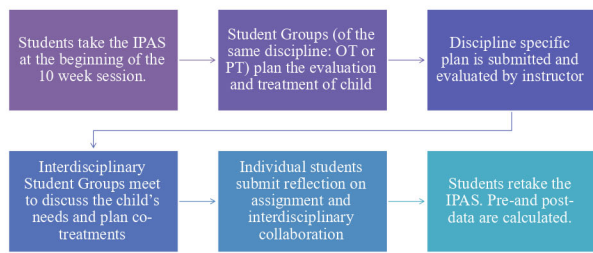
	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Shared learning before graduation will help me become a better team worker.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

During the course, the students from both professions collaborated to complete an in-class case study of a 4-year old child with development delay. When completing the survey, students were assigned an identification number in order to match pre and post data. IPAS scores were calculated for each survey. Paired pre and post data were calculated for the 5 sub-scales:

- Teamwork, Roles, and Responsibilities
- Patient-Centeredness
- Interprofessional Biases
- Diversity & Ethics
- Community-Centeredness

Changes in scores were analyzed using Wilcoxon Signed-Rank tests and differences between groups were analyzed using Mann Whitney U tests with alpha set at .05.

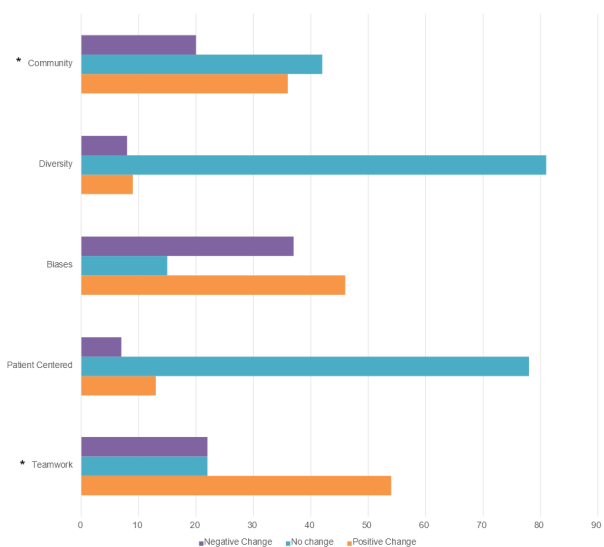
Study Design Including In-class Case-Based Activity



RESULTS

A total of 98 second year OT (n=39) and PT (n=59) students completed the IPAS in week 1 and week 10.

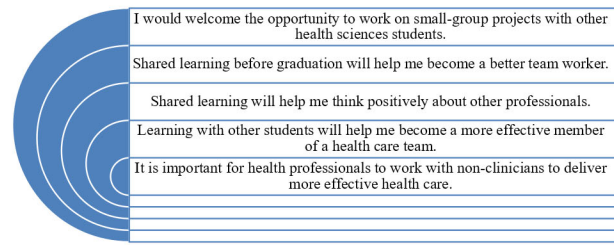
Number of Students Showing Positive, Negative, or No Change in Score Pre to Post Test by Sub-scale



- * Teamwork, Roles, and Responsibilities (p=.004) and Community-Centeredness (p=.041) sub-scales showed significantly positive change for all students.
- Teamwork, Roles, and Responsibilities sub-scale, 55% of students' scores increased while 22% decreased.
- Community-Centeredness, 38% of scores increased while 20% decreased.

A significant difference between OT and PT students (p=.016) was found only for the Teamwork, Roles, and Responsibilities sub-scale, with greater positive change in PT.

Specific Survey Items with Greatest Amount of Change



In addition to total score changes, specific survey items within the significant subscales showed the greatest positive score difference.

DISCUSSION

The use of an interprofessional case-based group activity had a positive effect on students' attitudes toward teamwork, interprofessional roles, and the role of community in patient care.

- Overall these results were similar to findings in other related studies:
- Multiple studies found similar results related to positive impact of community-based IPE on student attitudes towards teamwork and professional roles and responsibilities (Andonian & Rosenblum, 2017; Cerny et al., 2018; Coiro et al., 2016; Raponi et al., 2023).
 - Classroom-based IPE activities are not as frequently reported; however, the findings are consistent with the current study regarding improved attitudes toward team collaboration (Humphrey et al., 2019; Reutter et al., 2022).
 - Reutter et al. (2022) found that students showed positive changes in attitude related to teamwork following a classroom-based IPE simulation activity with a standardized patient.
 - Humphrey et al. (2019) found that students felt a case-based IPE classroom activity would facilitate improved capacity for teamwork with other professions following graduation.

This study focused on quantitative values from the IPAS, which has a known ceiling effect and potentially limited the significant findings in the study (Norris et al., 2015). Future research on this topic would benefit from use of qualitative or mixed-methods designs to provide added insight into student perspectives not available through quantitative scales.

Caution should be taken when interpreting these results as score changes cannot be directly connected to the case-based activity. Because the activity took place over the several weeks, the IPAS was delivered at the beginning and end of the 10-week course, and other aspects of the curriculum delivered during that time may confound the findings.

Differences between OT and PT students were limited and significance is uncertain due to differences in course timing in the respective programs.

CONCLUSION

The use of an interprofessional case-based group activity had a positive effect on students' attitudes toward working as part of an interprofessional team and with members of the community, with the greatest improvement seen in attitudes towards working with health sciences students in the future. The IPAS had a ceiling effect for many sub-scales limiting the ability to detect changes in attitudes toward other aspects of ICP.

CLINICAL RELEVANCE

ICP is the standard of care for health professionals. This study supports the use of interprofessional case-based group activities for improving students' knowledge and attitudes towards working with other professionals within and outside of patient care. Positively influencing future healthcare professionals' attitudes towards collaborative care is an important step in advancing ICP.