Enhancing Collaboration in Rehabilitation: A Cross-Institutional Interprofessional Education Experience

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Objectives

1. Outline an integrated experiential interprofessional education (IPE) learning event pairing two independent graduate academic programs.

2. Describe feedback from participating DPT and OTD students about their learning related to inter-professional education and practice (IPP).

3. Show the effectiveness of a single IPE event between a DPT and OTD academic program.

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Method

- Faculty from an entry-level hybrid DPT program and entry-level residential OTD program designed an interactive IPE event to promote awareness of each other's professional roles and responsibilities.

- Developed project in keeping with philosophy of IPE education to promote skill, knowledge development, cooperation, communication skills, and professional respect among allied healthcare students (Dixon et al., 2024).

- Conducted a mixed-methods research project to gather student perspectives in response to the joint IPE Event. Attained IRB approval from both institutions prior to commencing. 83 students participated in the assignment (56 DPT and 27 OTD). DPTs were in 1st term and OTDs were in 2nd term of respective programs.

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IPE Event: Three Parts

1. Pre-work on Canvas

   Research OT and PT roles and responsibilities & case study review

2. Two-hour virtual live synchronous event

   Small breakout groups to discuss OT and PT roles, responsibilities, similarities, and differences in the case study and practice

3. Post-work on Canvas

   Interprofessional Collaborative Competencies Attainment Survey (ICCAS) and a post-session reflection/ self-assessment

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Interprofessional Collaborative Competencies Attainment Survey (ICCAS)

(Archibald, et al., 2014)

	Before participating in the learning activities I was able to:								After participating in the learning activities I am able to:							
Communication	1	2	3	4	5	6	7	na	1	2	3	4	5	6	7	na
1. Promote effective communication among members of an interprofessional (IP) team*	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
2. Actively listen to IP team members' ideas and concerns	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
3. Express my ideas and concerns without being judgmental	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
4. Provide constructive feedback to IP team members	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
5. Express my ideas and concerns in a clear, concise manner	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
Collaboration																
6. Seek out IP team members to address issues	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
7. Work effectively with IP team members to enhance care	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
8. Learn with, from and about IP team members to enhance care	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
Roles and Responsibilities																
9. Identify and describe my abilities and contributions to the IP team	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
10. Be accountable for my contributions to the IP team	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
11. Understand the abilities and contributions of IP team members	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
12. Recognize how others' skills and knowledge complement and overlap with my own	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
Collaborative Patient/Family-Centred Approach																
13. Use an IP team approach with the patient** to assess the health situation	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
14. Use an IP team approach with the patient to provide whole person care	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
15. Include the patient/family in decision-making	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
Conflict Management/Resolution																
16. Actively listen to the perspectives of IP team members	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
17. Take into account the ideas of IP team members	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
18. Address team conflict in a respectful manner	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
Team Functioning																
19. Develop an effective care*** plan with IP team members	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
20. Negotiate responsibilities within overlapping scopes of practice	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍

Data Analysis

Statistical analyses using SPSS v29.0 to determine significant changes in ICCAS scores from pre- to post-session.

Normality for 6 domains of ICCAS was assessed using the Shapiro–Wilk test. Wilcoxon Signed-Rank test was performed to compare paired pre- vs. post-session scores. Two-tailed exact tests were used to compute p-values, and statistical significance was set at $p < 0.05$.

Qualitative responses from the reflection survey were initially coded by ChatGPT and then reviewed by two faculty researchers to ensure accuracy and to refine the data.

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Quantitative Results (SPT, n=56)

Construct	Pre	Post	
	Median (IQR)	Median (IQR)	p-value
Communication	30.0 (26.3, 34.0)	33.0 (31.0, 35.0)	<0.001
Collaboration	18.0 (13.0, 20.0)	21.0 (18.3, 21.0)	<0.001
Roles and Responsibilities	23.0 (20.3, 25.8)	28.0 (25.0, 28.0)	<0.001
Collaborative Patient/Family-Centered Approach	18.0 (15.0, 20.0)	21.0 (18.0, 21.0)	<0.001
Conflict Management/Resolution	20.0 (18.0, 21.0)	21.0 (20.3, 21.0)	<0.001
Team Functioning	10.0 (8.0, 12.8)	14.0 (12.0, 14.0)	<0.001

Quantitative Results (OTS, n=27)

Construct	Pre	Post	
	Median (IQR)	**Median (IQR)**	**p-value**
Communication	26.0 (24.0, 30.0)	32.0 (30.0, 35.0)	<0.001
Collaboration	15.0 (13.0, 18.0)	20.0 (18.0, 21.0)	<0.001
Roles and Responsibilities	21.0 (19.0, 24.0)	27.0 (24.0, 28.0)	<0.001
Collaborative Patient/Family-Centered Approach	16.0 (14.0, 18.0)	20.0 (19.0, 21.0)	<0.001
Conflict Management/Resolution	17.0 (15.0, 18.0)	20.0 (18.0, 21.0)	<0.001
Team Functioning	9.0 (7.0, 11.0)	12.0 (11.0, 14.0)	<0.001

Qualitative Themes

- Communication
- Collaboration
- Roles & Responsibilities
- Collaborative Patient & Family-Centered Approach
- Conflict Management & Resolution
- Team Functioning
- Confidence
- Perspective Shifts
- Deepening of Learning
- Curriculum Consideration

Qualitative Results – Direct Quotes

"We actively listened to one another, taking into account the different approaches to reach the same desired outcome. Recognizing how complimentary each discipline can be to the other with great benefit to the patient."

"I thought it was really neat to see the overlap in OT and PT and that it isn't about 'they do this, and we do that,' but more so a holistic approach to the patient, and we can both work on similar goals at the same time to help support the patient the best."

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Qualitative Results – Direct Quotes

"We both share many characteristics but still have distinct practices in our scopes to differentiate our avenues of treatment. OTs really specialize in the fine motor skills of an individual that gives them a sense of self, as does a PT when working to establish their gross motor skills that allow them to move in any environment effectively."

"It's such an awesome experience that we put our own skills together to work towards a goal. It feels like we come together as a superhero group and bring uniqueness into our service primarily to serve others."

"

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Qualitative Results – Direct Quotes

"I believe that open communication is something that before the IPE experience I had a small appreciation for (sic). After the event, I have a deeper understanding of the vital role that team function (sic) and communication plays in the care of the patient. The patient's care will be only as effective as the performance of the entire team. If PT and OT can work more effectively in that team dynamic, the patient will benefit in their treatment."

"I would love to do more of this. The opportunity to collaborate on cases where our professions overlap gives us a stronger sense of comfort and fluidity within interdisciplinary settings."

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Discussion

- Mean change scores for both student groups across **all** ICCAS domains were statistically significant.
- Pre-work helped to lay a foundation for further discussion in the synchronous session.
- Students enjoyed and valued the IPE learning opportunity.
- Students gained respect for other profession and for working together.
- Event helped to dispel beliefs about the differences between PT and OT, as students realized the commonalities shared between the two professions.
- Students feel better prepared to communicate the value of their own profession and use this information when advocating on behalf of their patients.

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Limitations and Conclusion

- Limitations
  - Fewer OT students (n=27)
  - ICCAS is a self-report measure
  - Using AI for analysis is gaining acceptance among academic communities
- Feasible and beneficial learning experience.
- Noted a statistically significant results in the ICCAS after single IPE Event.
- Both Rockhurst and Tufts will be continuing the event in their curricula.

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References

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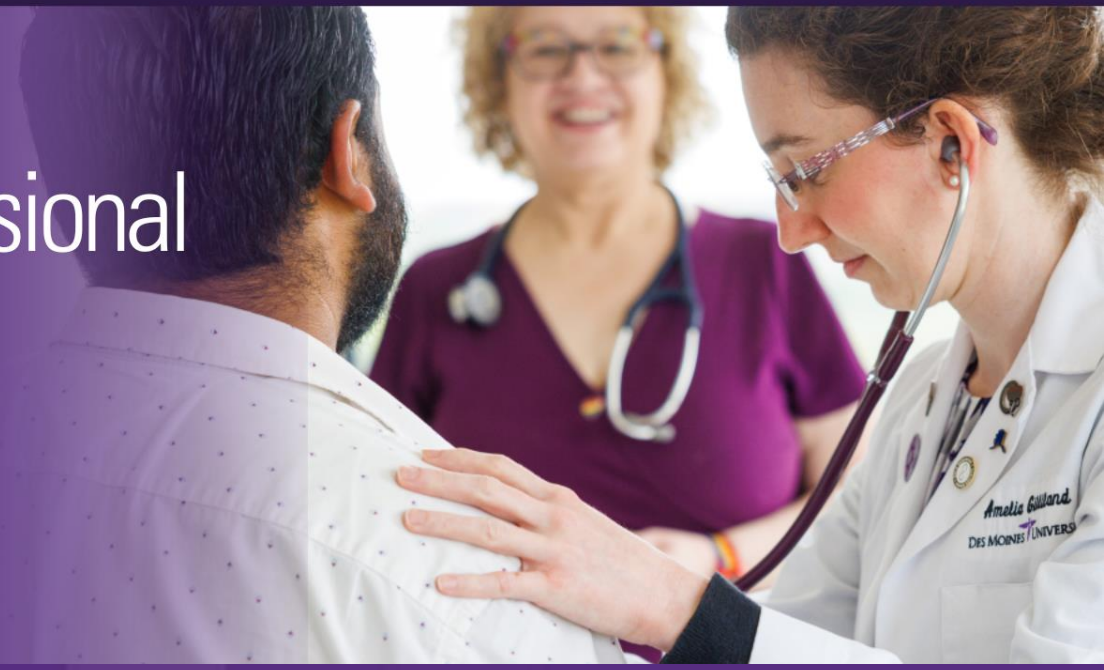

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Questions?

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