

Dissecting through the Decade: A 10-year Cross-sectional Analysis of Interprofessional Experiences in the Anatomy Lab

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INTRODUCTION

- **Interprofessional education (IPE)** is a critical component in preparing pre-licensure health professional students for future teamwork and collaboration.
- Anatomy is the language of health sciences. Therefore, anatomical education can serve as an avenue to facilitate interprofessional student interactions.

The purpose of this study is to evaluate the differences in IPE attitudes and perceptions amongst health disciplines across the span of 10 years.

COURSE & SUBJECTS

- The **IPE Anatomy Dissection elective** at McMaster University is an 8-week elective for first-year students from multiple health sciences programs (Figure 1). This elective was launched in 2009.

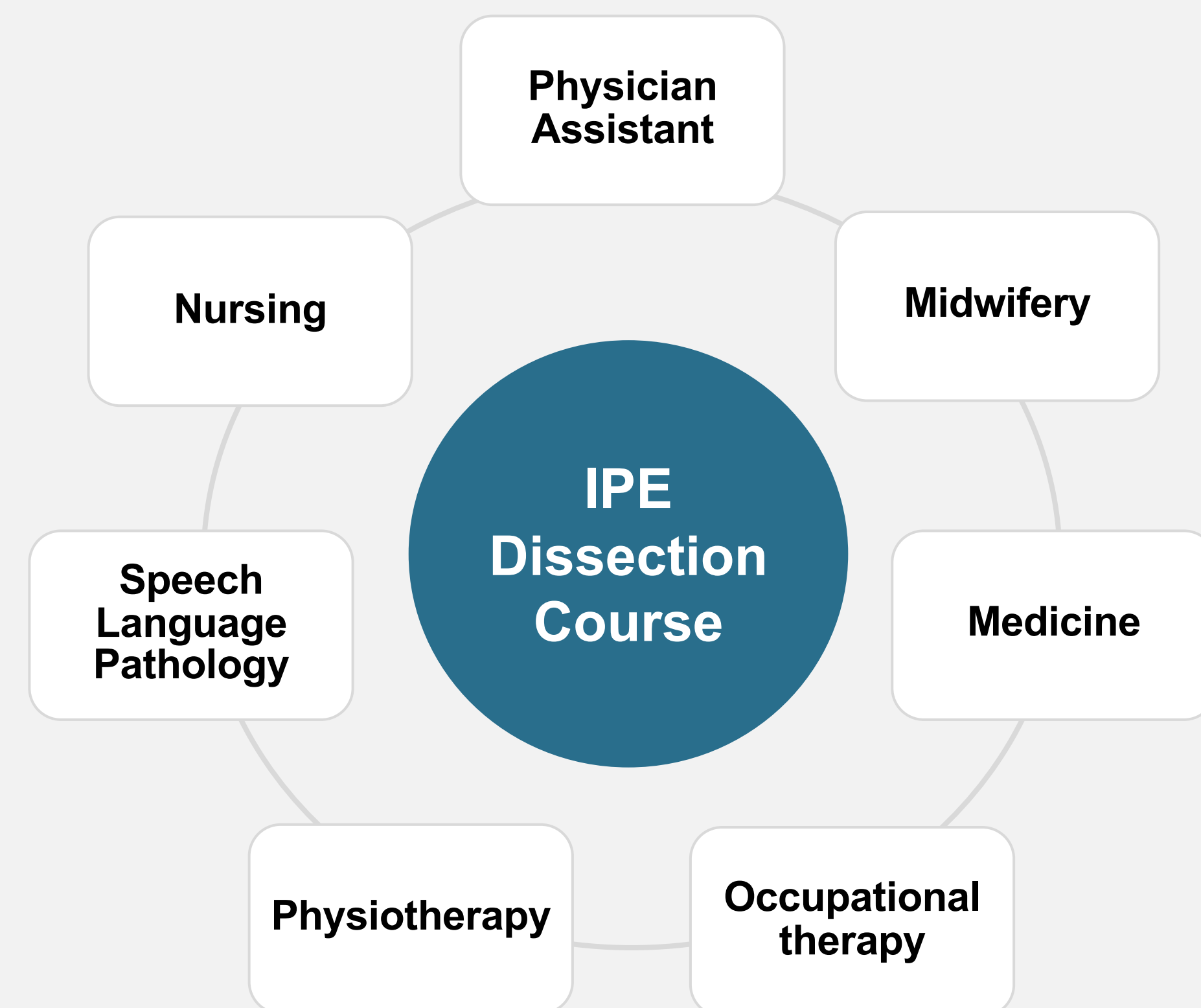


Figure 1: Programs of IPE Anatomy Dissection.

- Students participate to **deliver scope of practice presentations, discuss clinical case studies, and collectively perform cadaveric dissections** with their peers.



Figure 2: Components of IPE Anatomy Dissection.

METHODS

Figure 3: Surveys were available to students for ~2 weeks before and after the elective.

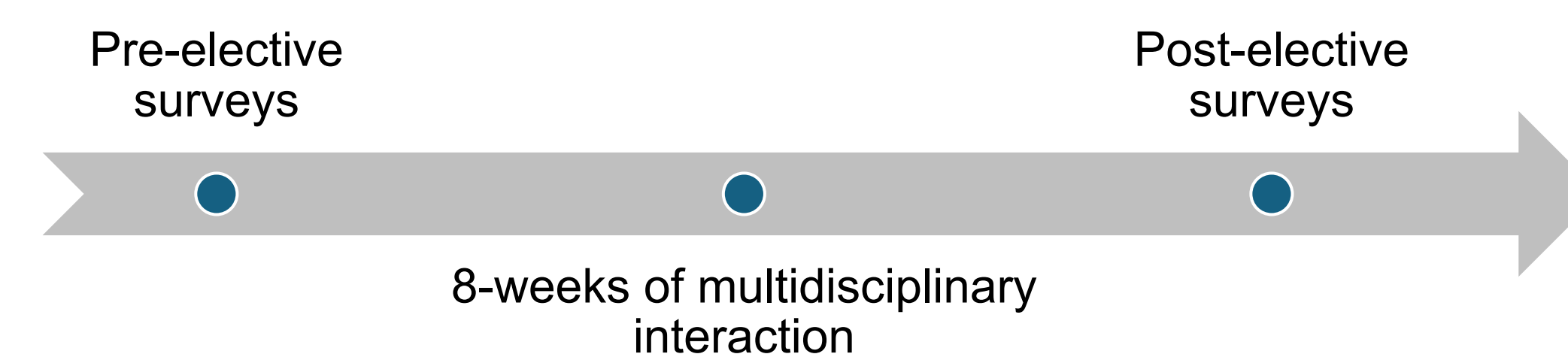


Table 1: Outcome measures used to assess perceptions and attitudes toward IPE.

Scale	Description
RIPLS	<ul style="list-style-type: none">▪ To assess attitudes and perceptions of learners. Used to determine their readiness for IPE learning, changes and intervention effectiveness▪ Total score ranges from 19 to 95 with higher scores indicating greater IPE readiness
IEPS	<ul style="list-style-type: none">▪ To gauge learners' perceptions of their own profession and their relationship to other disciplines. Used to determine their level of perceived and actual IP collaboration▪ Total score ranges from 12 to 72, with greater scores indicating greater positive perception towards IPE

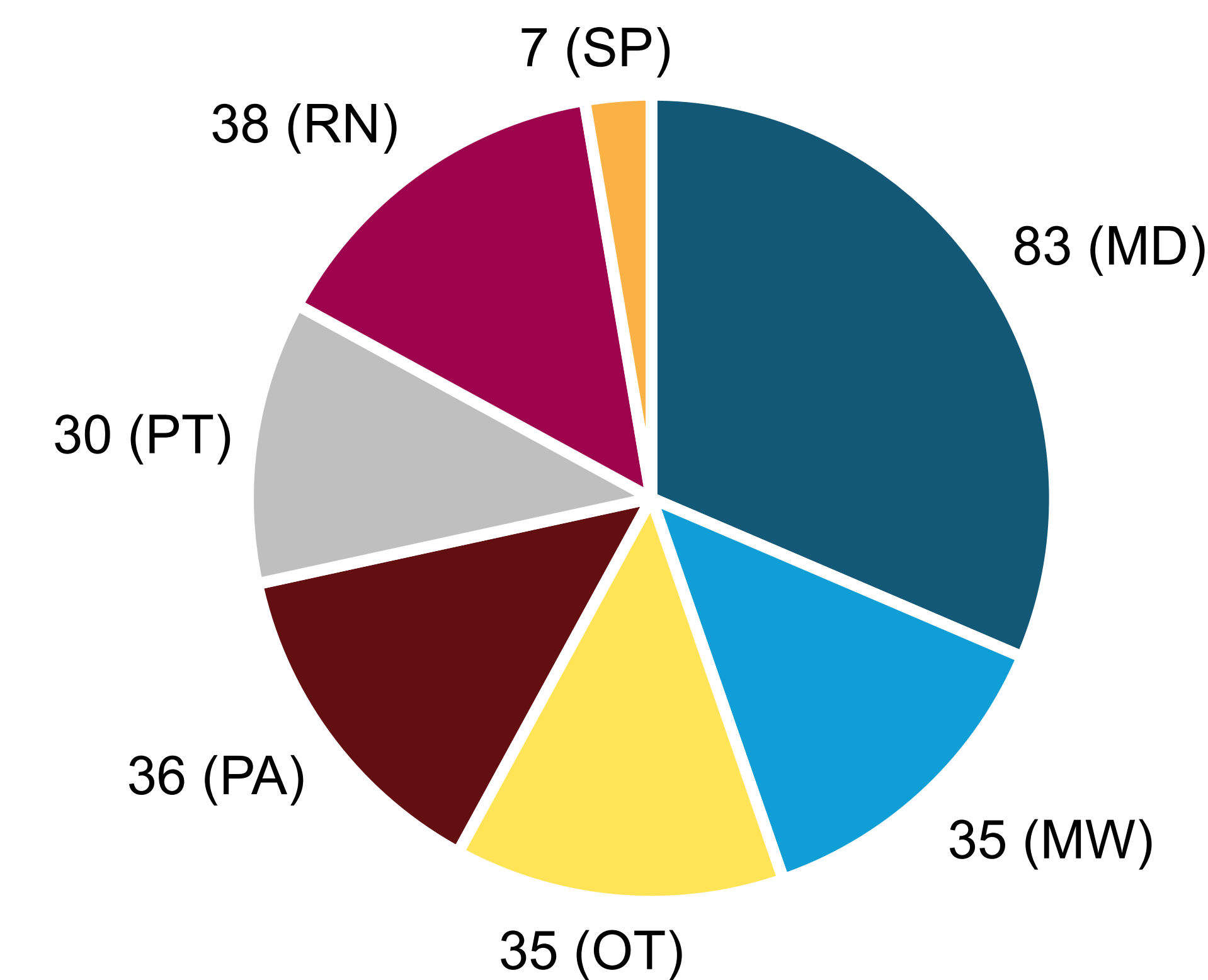


Figure 4: The distribution of students involved in the elective course over the span of 10 years (n=264). *SP were introduced into the program as of 2018.

RESULTS

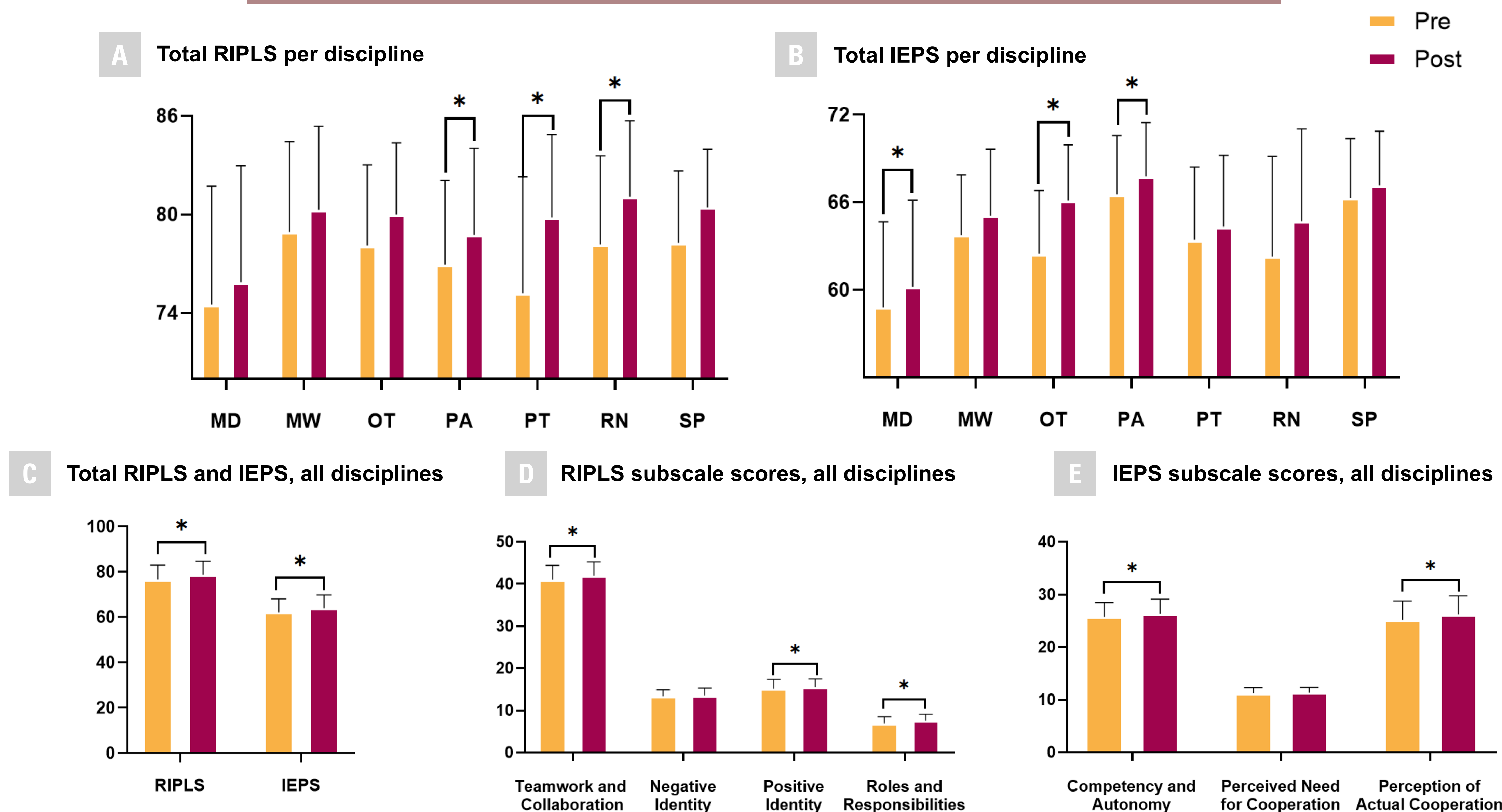
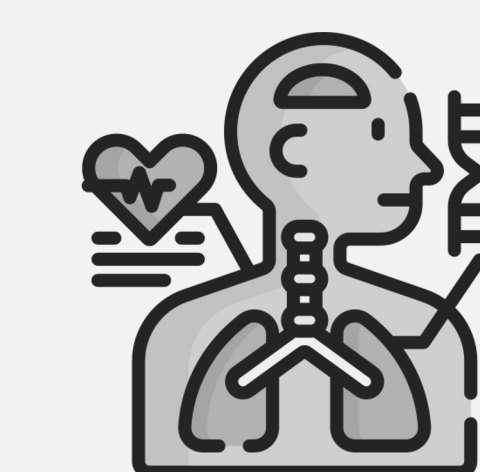


Figure 5: A) The total RIPLS scores analyzed by disciplines showed significant differences in mean scores after the elective in PA, PT and RN. B) The total IEPS scores by disciplines showed significant differences in mean scores after in MD, MW and PA. C) Total RIPLS and IEPS significantly changed after the elective, when scores were analyzed collectively (n=264) across the 10 years. D-E) The mean RIPLS and IEPS subscale scores significantly changed after the elective. Statistical significance indicated by * for $p < 0.05$.

CONCLUSION

Interprofessional anatomy learning improved students' overall IPE readiness, as observed by changes in the mean RIPLS and IEPS total and subscale scores.



- Students expressed their **gratitude towards learning and applying anatomical knowledge** through dissections and carrying out clinical conversations relating to their dissection findings within their interprofessional teams.



- Students gained a **stronger appreciation for interprofessional collaboration**, likely by improving their understanding of their own roles, responsibilities and the contributions provided by other disciplines.

IMPLICATIONS



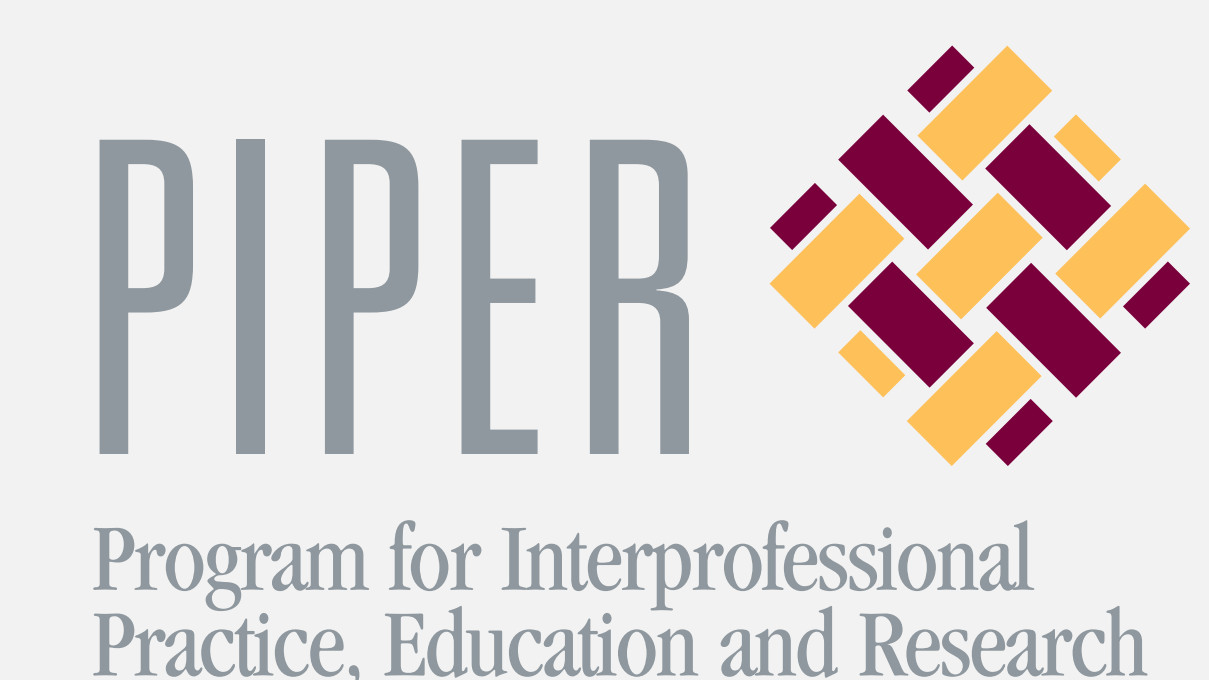
- These findings emphasize the importance of utilizing foundational knowledges in health sciences, such as anatomy to create impactful IPE experiences.



- Future steps to collect additional demographic characteristics and incorporate additional healthcare disciplines to enhance applicability of these results.

ACKNOWLEDGEMENTS

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REFERENCES

Fernandes AR, Palombella A, Salfi J, Wainman B. Dissecting through barriers: A mixed-methods study on the effect of interprofessional education in a dissection course with healthcare professional students. *Anat Sci Educ*. 2015;8(4):305-316. Mackinnon C, Akhtar-Danesh N, Palombella A, Wainman B. Using Q-methodology to determine students' perceptions of interprofessional anatomy education. *Anatomical Sciences Education*. 2022;15(5):877-885. Zheng YHE, Palombella A, Salfi J, Wainman B. Dissecting through barriers: A Follow-up Study on the Long-Term Effects of Interprofessional Education in a Dissection Course with Healthcare Professional Students. *Anat Sci Educ*. 2019;12(1):52-60. All icons were sourced from Flaticon.