Trends and Changes in Interprofessional Education Readiness in the Faculty of Health Sciences over 6 years: A Cross-Sectional Analysis

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INTRODUCTION

- Interprofessional Education (IPE) prepares students to provide team-based, patient-centered care.[1]
- Students must be willing to engage in collaborative learning for IPE to be conducive; understanding students' IPE readiness can facilitate development of effective educational interventions.[2]
- IPE at McMaster Faculty of Health Sciences (FHS) underwent a novel transition from in-person to online and hybrid teaching, encompassing pre-, during and post-COVID-19 (Figure 1).
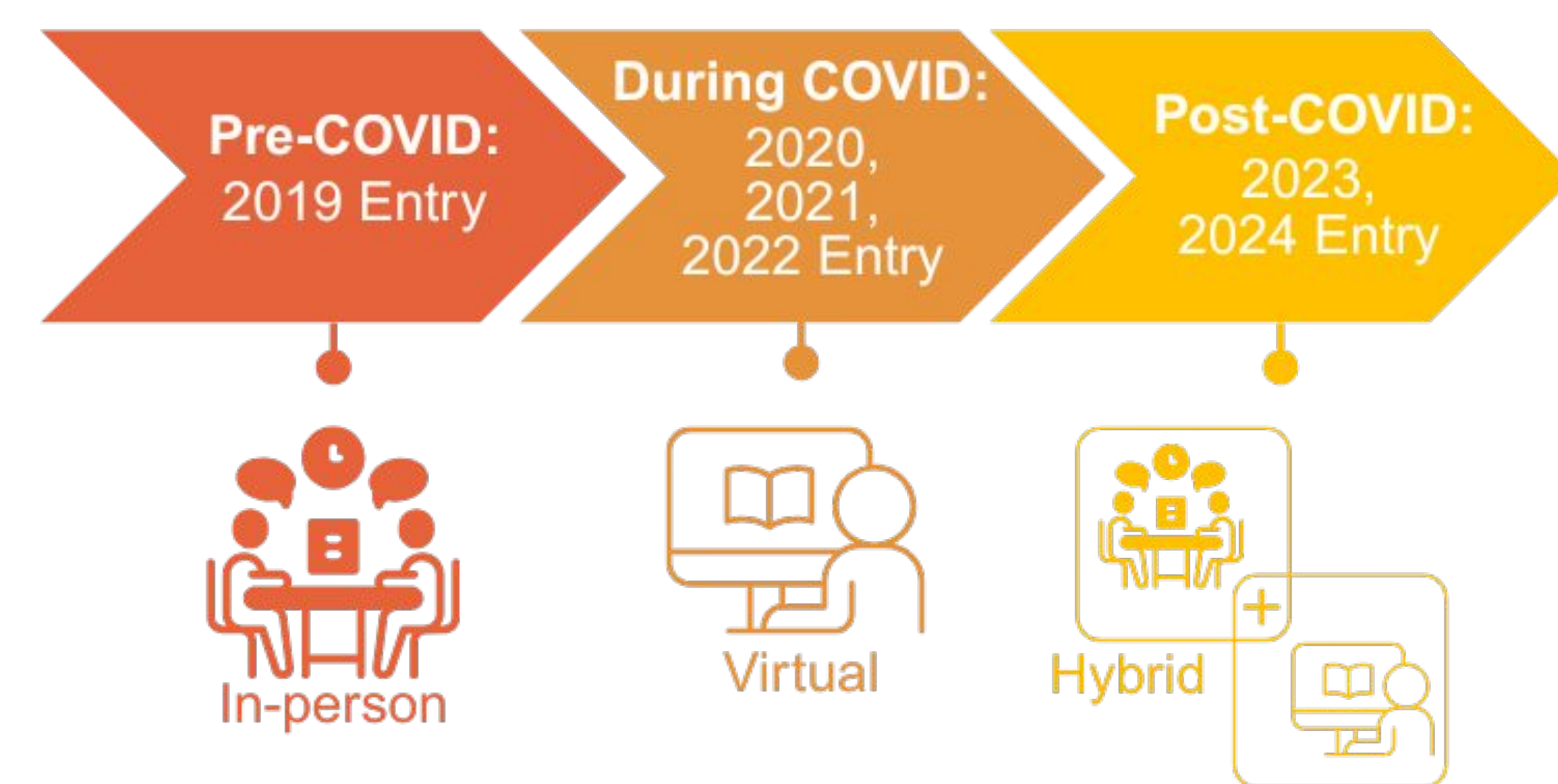
Pre-COVID: 2019 Entry → **During COVID:** 2020, 2021, 2022 Entry → **Post-COVID:** 2023, 2024 Entry

In-person / Virtual / Hybrid

Figure 1: Time period groupings and the differences between their teaching formats.

OBJECTIVE: To characterize FHS students' readiness for IPE upon program entry between 2019 and 2024. This study also compares students' IPE readiness across disciplines, program specializations, time periods, and levels of exposure to IPE.

METHODS

- <u>**Outcome Measure:**</u> **Readiness for Interprofessional Learning Scale (RIPLS)[3]**
- 19 item scale with 4 subscales [range of scores]:
  - Teamwork & Collaboration (**TC**): [9 – 45]
  - Negative Professional Identity (**NPI**): [3 – 15]
  - Positive Professional Identity (**PPI**): [4 – 20]
  - Roles & Responsibilities (**RR**): [3 – 15]
- Items rated on a 5-point Likert scale (1=strongly disagree, 5=strongly agree)
- Total score ranges from 19 to 95, with a higher score corresponding with a higher readiness for IPE.
- FHS students entering the 1st year of their programs between 2019 and 2024 were invited to complete a voluntary RIPLS survey.
- **Subgroup analyses:** by discipline (Table 1), program specialization (Table 1), time period (Fig. 1), previous IPE experience (with, without).

	Undergraduate General - UG (1)	Undergraduate Professional - UP (5)	Graduate Professional - GP (4)
Disciplines (10)	Bachelor of Health Sciences (BHSc)	Physician Assistant (PA), Nursing (N), Midwifery (MW), Medicine (MD), Social Work (SW)	Physiotherapy (PT), Child Life (CL), Occupational Therapy (OT), Speech Language Pathology (SLP)

Table 1: Disciplines and program specialization groupings.

- Total and subscale RIPLS scores compared via Kruskal-Wallis and Mann-Whitney U tests.
- STATA 18.0 B/E was used, and p-values <0.05 were considered statistically significant.
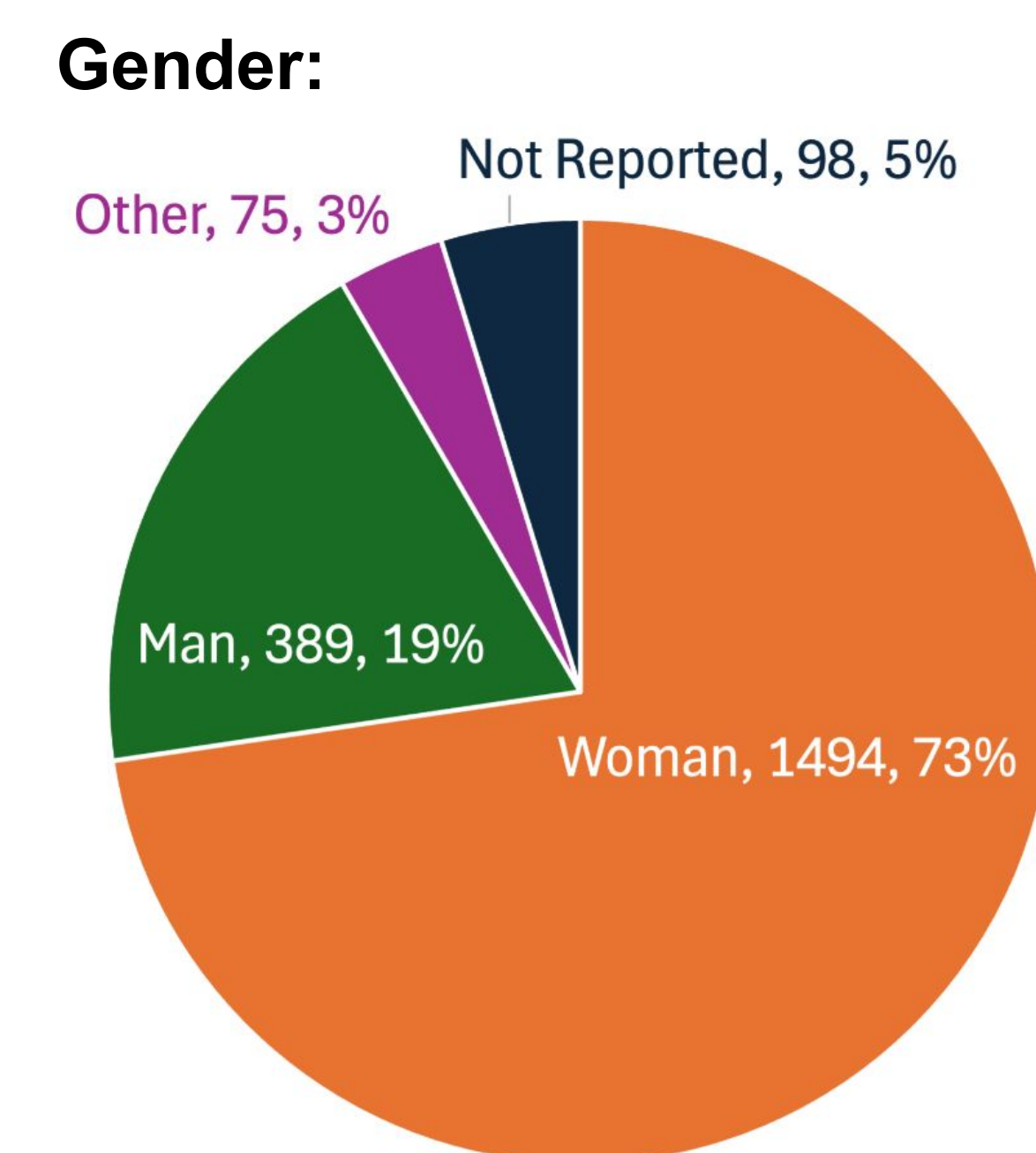
RESULTS

Gender:

Figure 2: Participants' characteristics: Gender distribution (n=2,056).

Not Reported, 98, 5%
Other, 75, 3%
Man, 389, 19%
Woman, 1494, 73%

Interest in IPE Exposure:

Yes: 1050, 95%
No: 52, 5%
In-person: 293, 27%
Virtual: 83, 7%
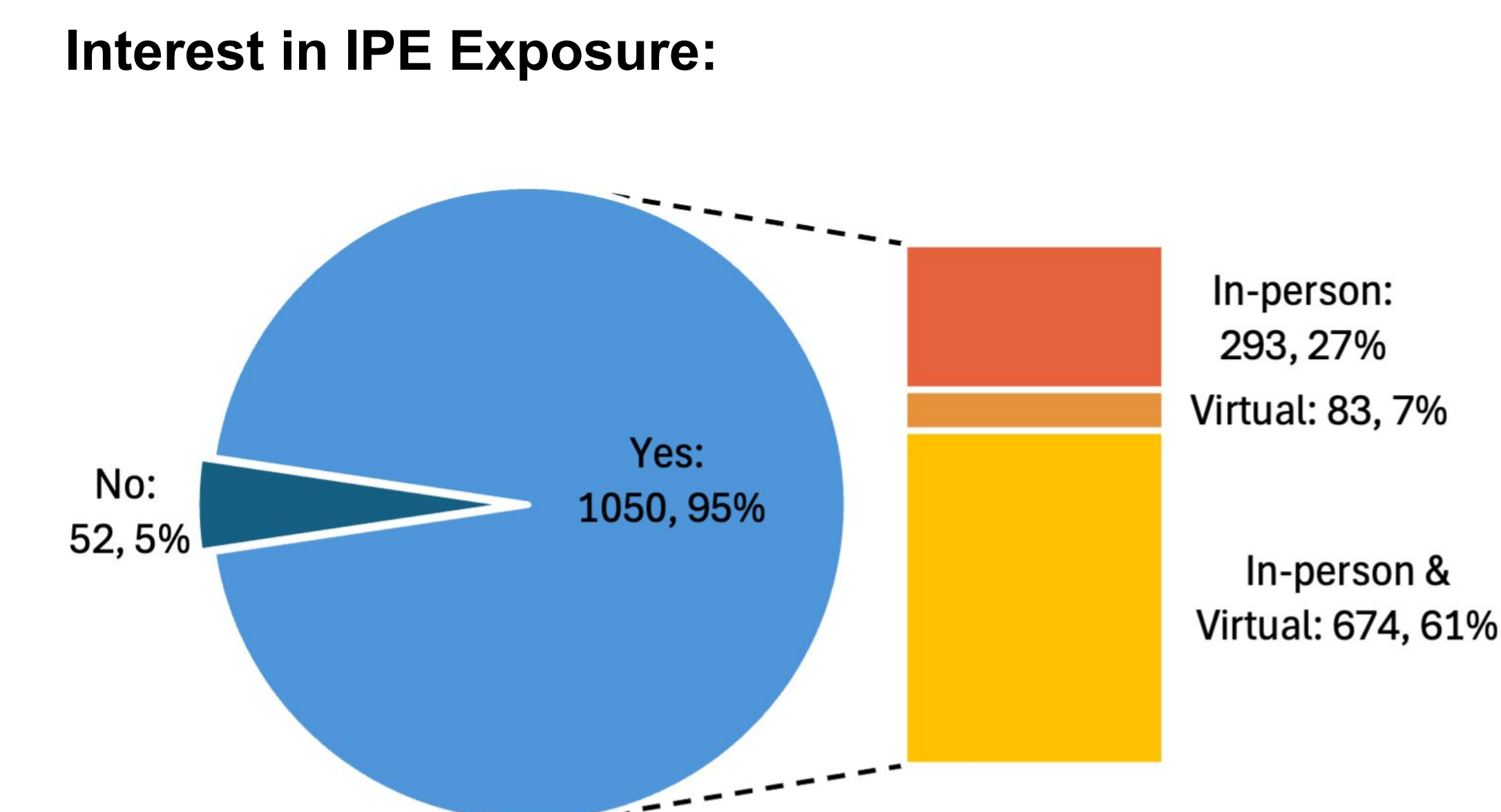In-person & Virtual: 674, 61%

Figure 3: Participants' interest in being exposed to IPE during the length of their program and if yes, how they would like to be exposed (answers only collected after 2021, n=1,102).
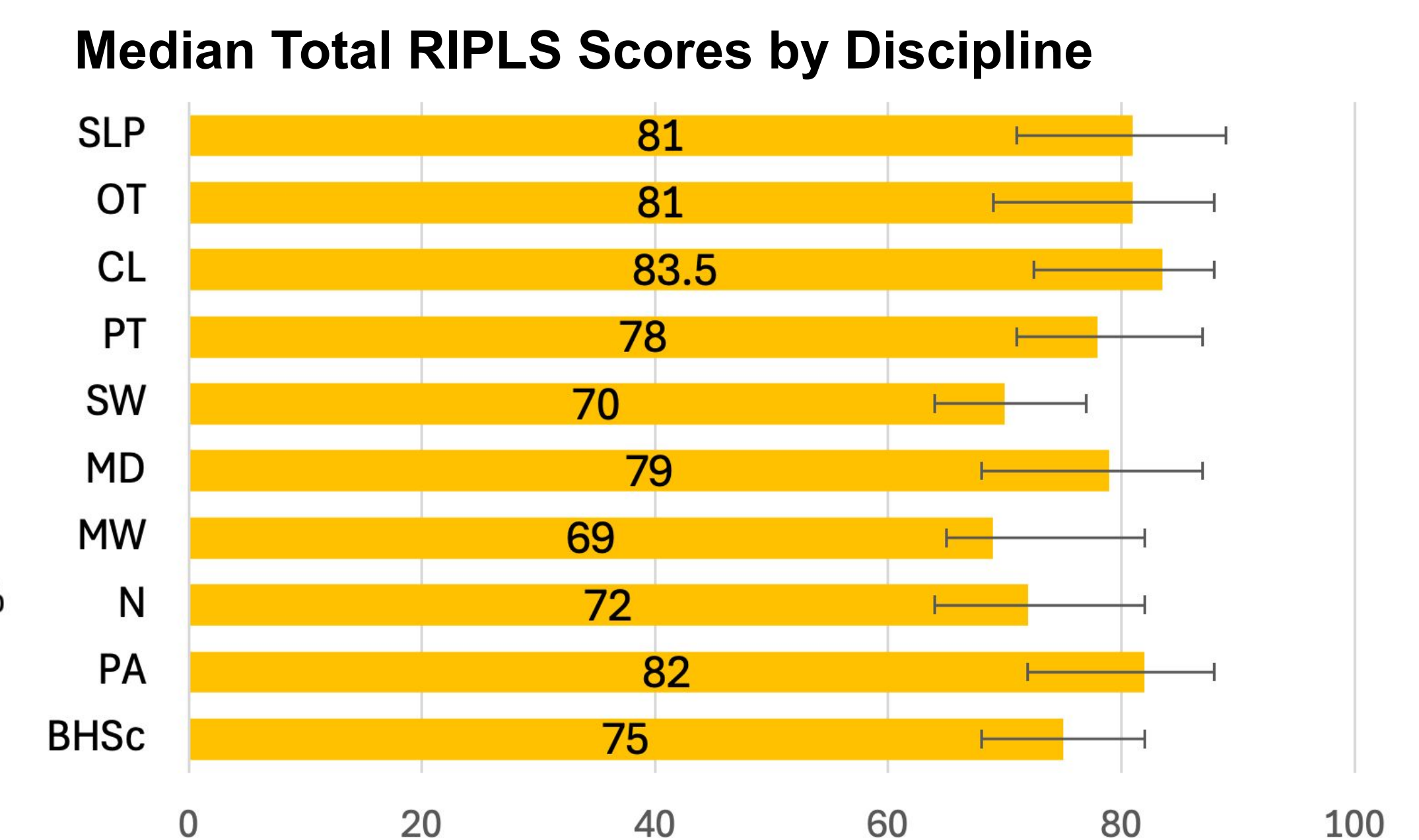
Median Total RIPLS Scores by Discipline

Discipline	Score
SLP	81
OT	81
CL	83.5
PT	78
SW	70
MD	79
MW	69
N	72
PA	82
BHSc	75

Figure 4: Median total RIPLS scores by discipline. Error bars = IQR. Statistically significant comparisons: PA v. N, PA v. MW, PA v. BHSc, PA v. SW, PT v. N, PT v. MW, PT v. BHSc, PT v. SW, CL v. N, CL v. MW, CL v. BHSc, CL v. SW, N v. OT, N v. BHSc, N v. MD, N v. SLP, MW v. OT, MW v. SLP, OT v. BHSc, OT v. SW, BHSc v. SLP, BHSc v. SW, MD v. SW, SLP v. SW.
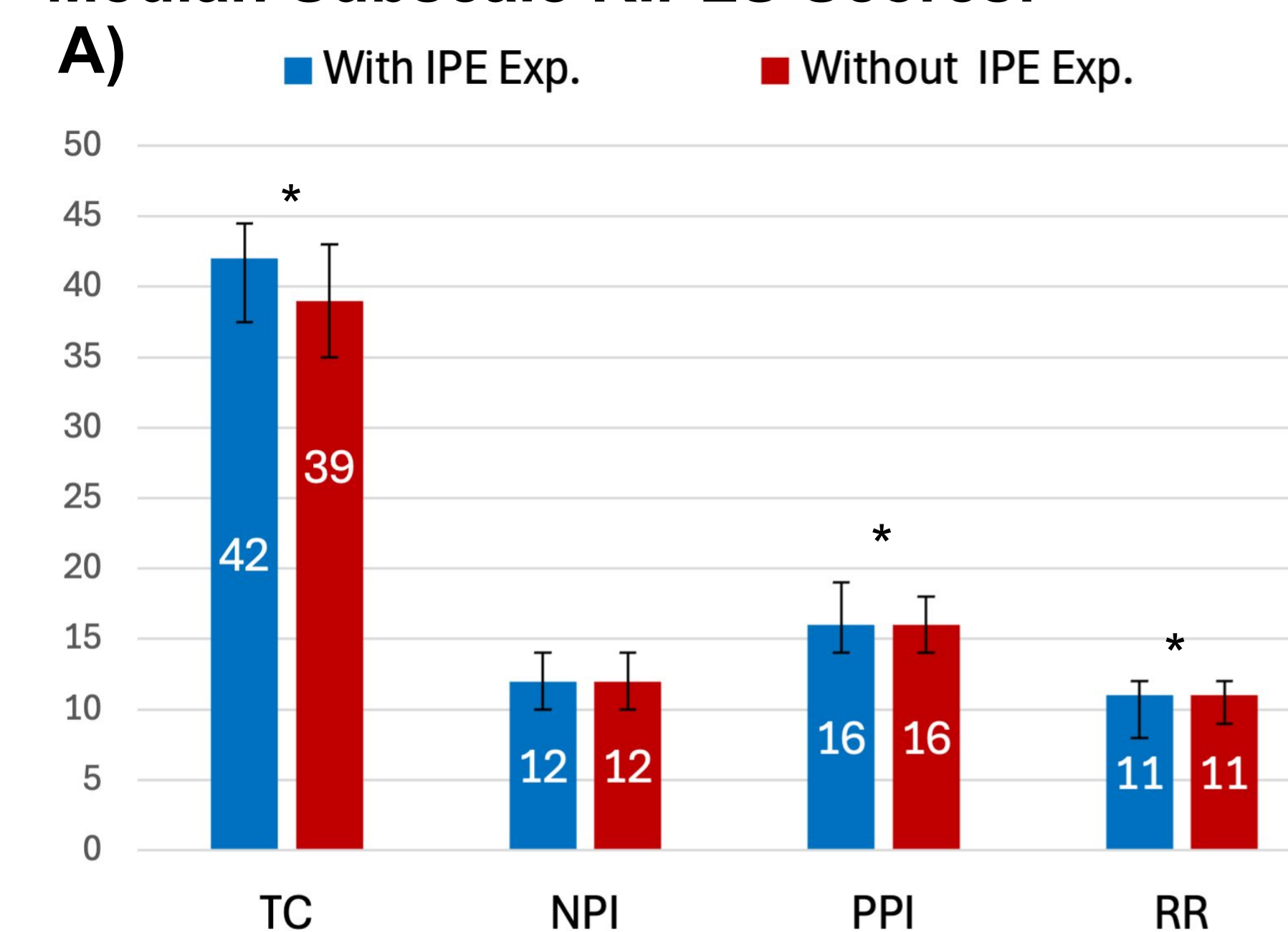
Median Subscale RIPLS Scores:

A) With IPE Exp. / Without IPE Exp. — TC 42/39, NPI 12/12, PPI 16/16, RR 11/11

Figure 5: Median subscale RIPLS scores by previous IPE experience. Error bars = IQR. Statistically significant differences indicated by *
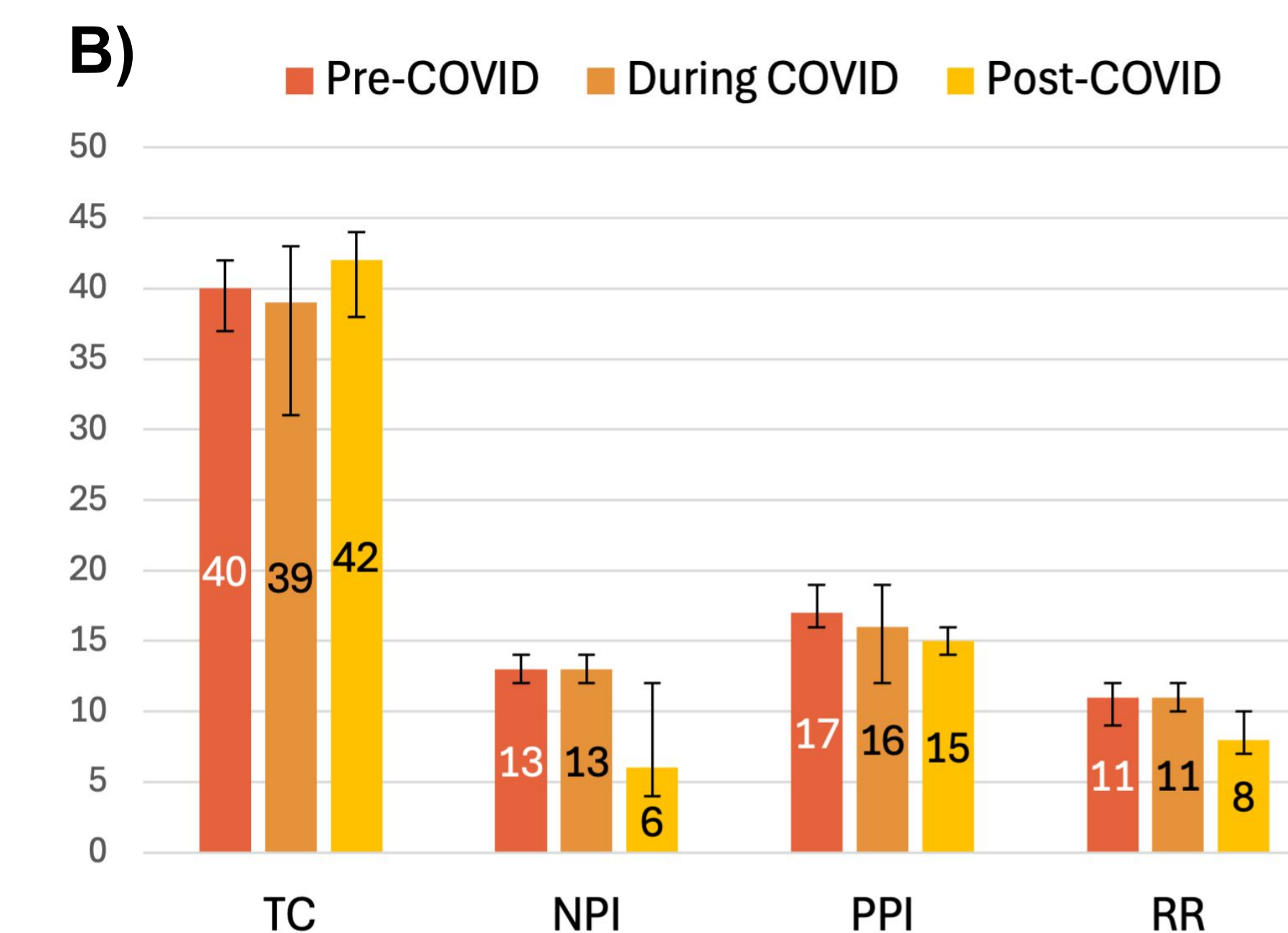

B) Pre-COVID / During COVID / Post-COVID — TC 40/39/42, NPI 13/13/6, PPI 17/16/15, RR 11/11/8

Figure 6: Median subscale RIPLS scores by time period groups. Error bars = IQR. **All comparisons are statistically significant.**

C) UG / UP / GP — TC 39/39/41, NPI 13/12/13, PPI 16/15/17, RR 10/11/11
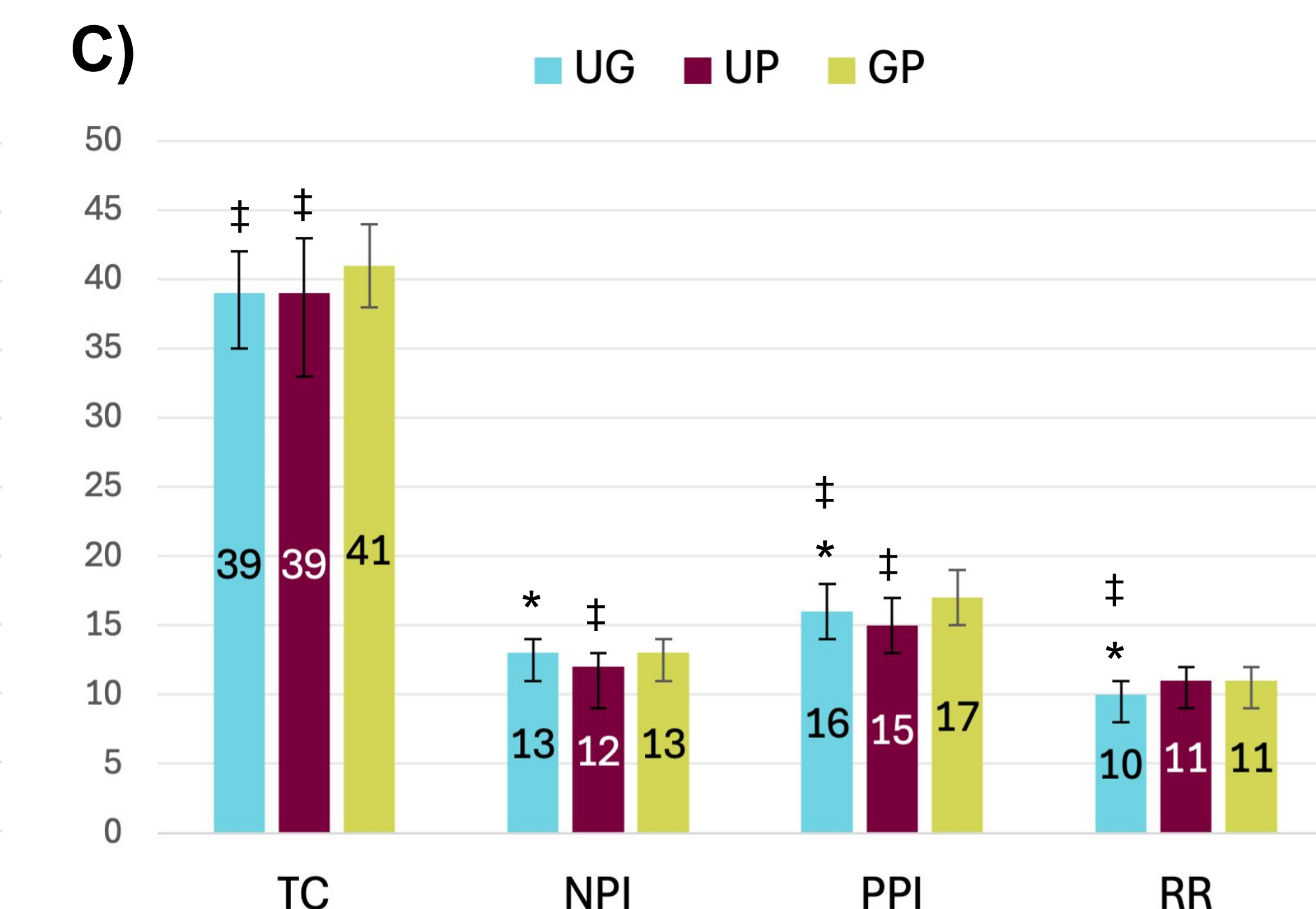
Figure 7: Median subscale RIPLS scores by program specialization. Error bars = IQR. * sig. different from UP, ‡ sig. different from GP.

Median Total RIPLS Scores:

	With IPE Exp.	Without IPE Exp.	Pre-COVID	During COVID	Post-COVID	UG	UP	GP
Median Total RIPLS Score (Q1,Q3)	79 (69,87)	75 (67,84)	80 (75,85)	78 (66,86)	70 (66,76)	75 (68,82)	73 (65,82.5)	80 (70,88)

Table 2: Median total RIPLS scores across previous IPE experience, time period, and program specialization. **Statistically significant comparisons:** with vs. without previous IPE exp., pre- vs. during COVID, pre- vs. post-COVID, during vs. post-COVID, UG vs. UP, UG vs. GP, UP vs. GP.

CONCLUSIONS

- The older graduate professional students had the highest scores across the TC and PPI subscales, and the highest total RIPLS scores; this is also reflected in the comparisons by discipline.
- Students with previous IPE experience were more likely to be ready for IPE.
- Total scores were highest pre-COVID, declining in the following two time periods; this suggests that the change in teaching formats may bear influence on incoming students' IPE readiness.
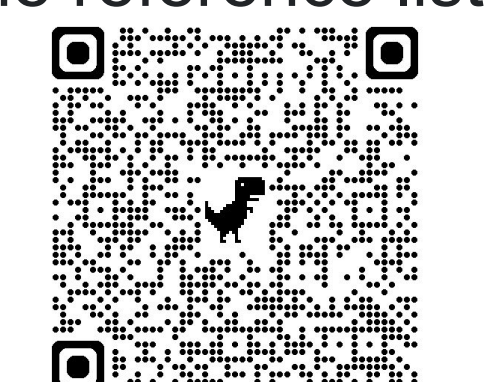
Strengths:
- Large sample size (n=2,056).
- Holm-Bonferroni corrections applied to control for Type I error.[4]

Limitations:
- RIPLS is subject to the ceiling effect.[5]
- Respondents were mostly women.

REFERENCES

Access the reference list here:
[QR code]

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