

Background/Objective

- It is unclear how perceptions of interprofessional attitudes change during medical and pharmacy student programs, both 4 years in duration.
- Students participated in three shared interprofessional (IPE) learning experiences within the first two pre-clinical years, then non-uniform experiences during years 3 and 4.
- Our specific aim was detection of change in student responses from baseline until program conclusion from the validated 27 item Interprofessional Attitudes Scale (IPAS),¹ previously used in didactic² and clinical learning experiences.^{2,3}

Methods

- Quasi-experimental design was used for the student cohort graduating with the class of 2022.
- The IPAS was administered at baseline and end of each program year (5 times).
- A linear mixed model was used to simulate a repeated analysis of variance design to detect differences in mean IPAS subscale scores annually from baseline.
- Pairwise comparisons were completed using Tukey's method and p values < 0.05 indicated significant differences.

Results

- Baseline response rates for 136 medical and 57 pharmacy students were 73.5% and 90%.
- Aggregate responses to all IPAS subscales except interprofessional biases were highest at baseline and trended down in later curricular years (Table 1).
- Medical student responses showed significant changes for all subscales except diversity & ethics and patient-centeredness (Table 1).
- Only the interprofessional biases subscale showed a statistically significant increase for both medical and pharmacy students (Table 1, Figure 1).

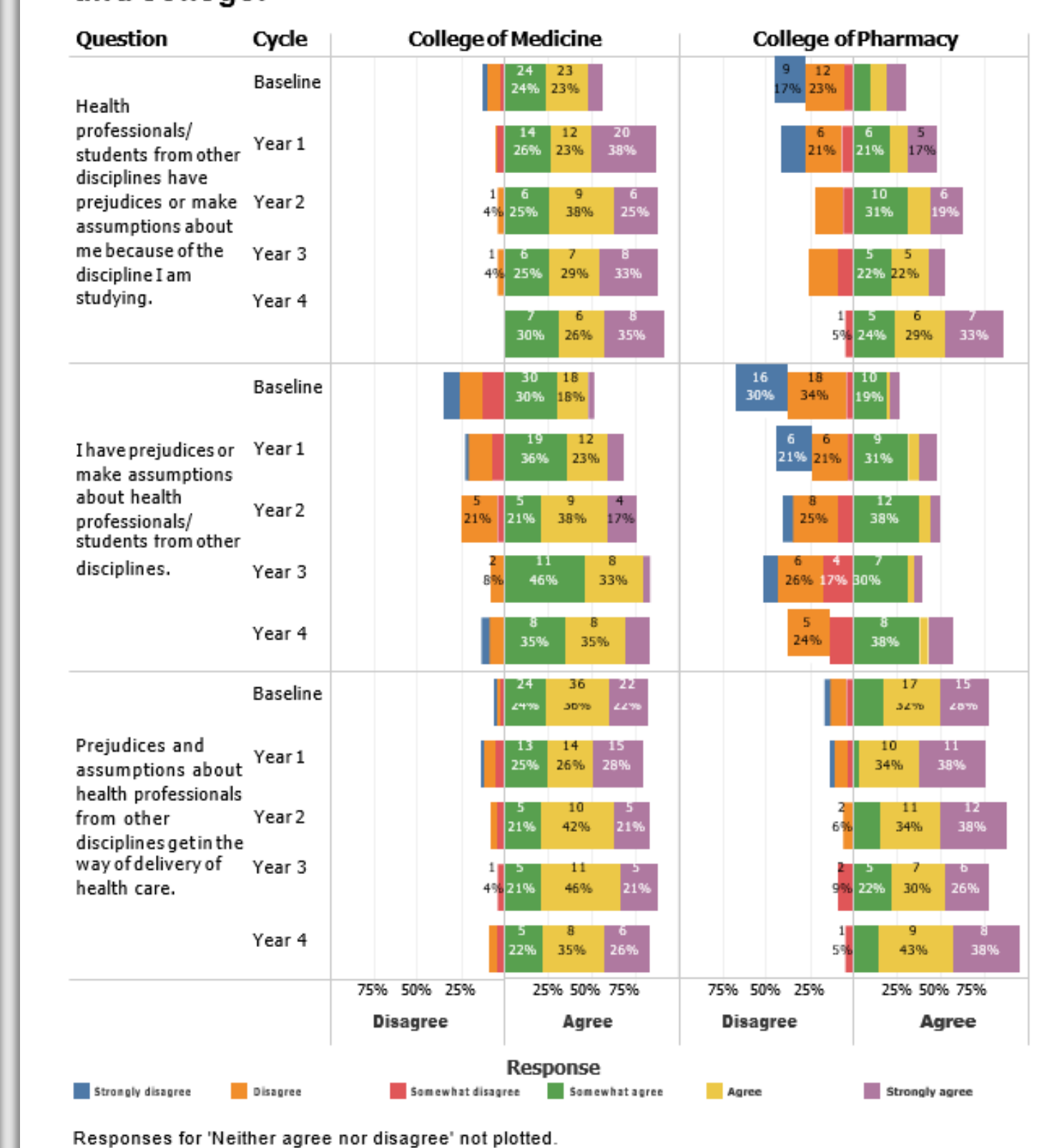
Results (continued)

Table 1. Longitudinal change in mean student responses to the Interprofessional Attitudes Scale annually for the class of 2022

	Medical students, n=136 [respondents (percent)]				
	Baseline [100 (73.5)]	Δ Year 1 [53 (39)]	Δ Year 2 [24 (17.6)]	Δ Year 3 [24 (17.6)]	Δ Year 4 [23 (16.9)]
IPAS subscale*					
Teamwork, Roles, and Responsibilities	6.12	-0.47 ^b	-0.50 ^b	-0.64 ^b	-0.78 ^b
Community-Centeredness	6.44	-0.09	-0.13	-0.35 ^b	-0.37 ^b
Diversity & Ethics	6.78	-0.02	0.00	-0.13	-0.05
Interprofessional Biases	4.78	0.43	0.81 ^b	0.91 ^b	0.59 ^b
Patient-Centeredness	6.82	-0.01	-0.04	-0.07	0.00
Total Score	6.27	-0.13	-0.11	-0.22	-0.29 ^b
	Pharmacy students, n=57 [respondents (percent)]				
	Baseline [53 (90)]	Δ Year 1 [29 (50.9)]	Δ Year 2 [32 (56.1)]	Δ Year 3 [23 (40.4)]	Δ Year 4 [21 (36.8)]
IPAS subscale*					
Teamwork, Roles, and Responsibilities	6.47	-0.14	-0.30	-0.13	-0.15
Community-Centeredness	6.60	-0.15	-0.13	-0.08	-0.12
Diversity & Ethics	6.85	-0.03	-0.01	-0.08	-0.11
Interprofessional Biases	3.89	0.64	0.89 ^b	0.41	1.30 ^b
Patient-Centeredness	6.80	-0.08	-0.11	-0.01	-0.10
Total Score	6.33	-0.03	-0.05	-0.03	0.03

IPAS=Interprofessional attitudes scale; Δ = change from baseline to respective program year
^aScale range 1 (strongly disagree) to 7 (strongly agree)
^bStatistically significant difference (p<0.05) by linear mixed model to simulate repeated analysis of variance design comparing mean subscale scores to baseline; pairwise comparisons were completed using Tukey's method

Figure 1. Interprofessional Bias subscale questions by year and college.



Conclusions

- Baseline student perceptions may reflect innate optimism, socially desirable responses and incomplete appreciation for biases.
- For the class of 2022, longitudinal responses of medical students showed statistical decreases for two of five IPAS subscales and a statistical increase for only the interprofessional biases subscale, in common with pharmacy students.
- Though the magnitude of some subscale changes mirrored completion of structured pre-clinical IPE curriculum and/or phases of clinical education, study limitations preclude confidence in these observations, with recognition of potential sample and survey biases complicated by factors including four years of longitudinal administration.
- Research is needed on the continuum of pre-entry factors to post-graduate collaborative practice for quality healthcare delivery.

References

- Norris J, Carpenter JG, Guo JW, Lassche M, Pett MA, Blumenthal DK. Development and construct validation of the interprofessional attitudes scale. *Acad Med* 2015;90(10):1394-1400. [survey used with permission]
- Dennis V, Craft C, Bratzler D, Yozzo M, Bender D, Barbae C, Neely S, Robinson M. Evaluation of student perceptions with 2 interprofessional assessment tools-the Collaborative Healthcare Interdisciplinary Relationship Planning Instrument and the Interprofessional Attitudes Scale-following didactic and clinical learning experiences in the United States. *J Educ Eval Health Prof* 2019; 16:35 <https://doi.org/10.3352/jehp.2019.16.35>
- Muzyk AJ, Tew C, Thomas-Fannin A, Dayal S, Maeda R, et al. An interprofessional course on substance use disorders for health professions students. *Acad Med* 2017;92:1704-08.