

Assessing Global Healthcare Empathy in Pharmacy Students before and after Interprofessional Education

BACKGROUND

- Empathy is a key player in providing patient-centered care by influencing patient satisfaction and adherence and is linked to improved patient outcomes.
- Second-year (P2) IPE experiences at The University of Houston College of Pharmacy (UHCOP) provide students with an opportunity to serve patients with various social determinants of health (SDoH).
- The Kiersma-Chen Empathy Scale Revised (KCES-R) survey has been validated in pharmacy students and was used in this study to see how our IPE experiences affect student global healthcare empathy.

OBJECTIVES

- To assess pharmacy student global healthcare professional empathy scores before interprofessional education (IPE) in first year student pharmacists (P1) and after IPE in second year student pharmacists (P2).

METHODS

Figure 1. Flow Diagram for Study Design

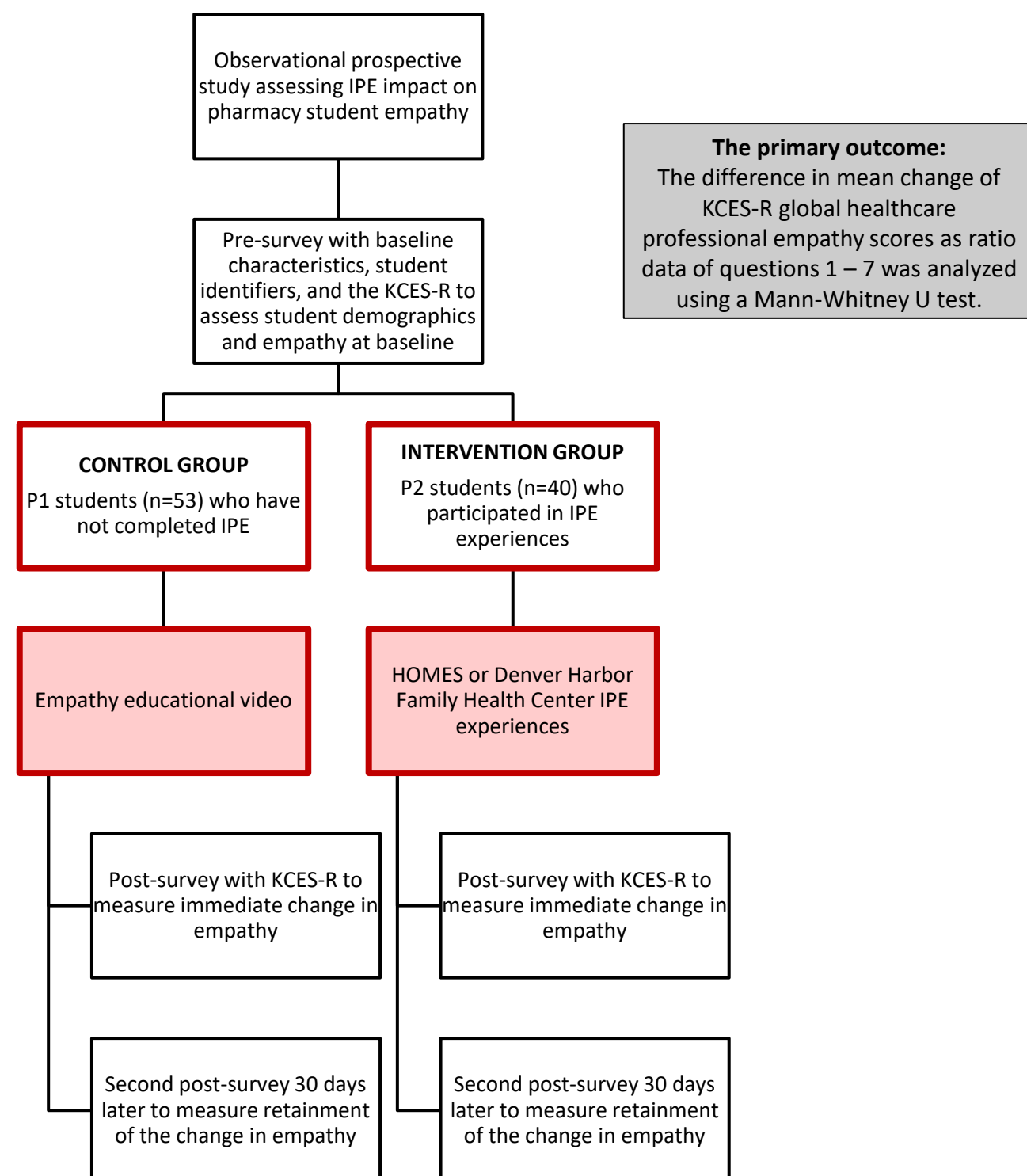


Table 1. Student Pharmacist Demographics

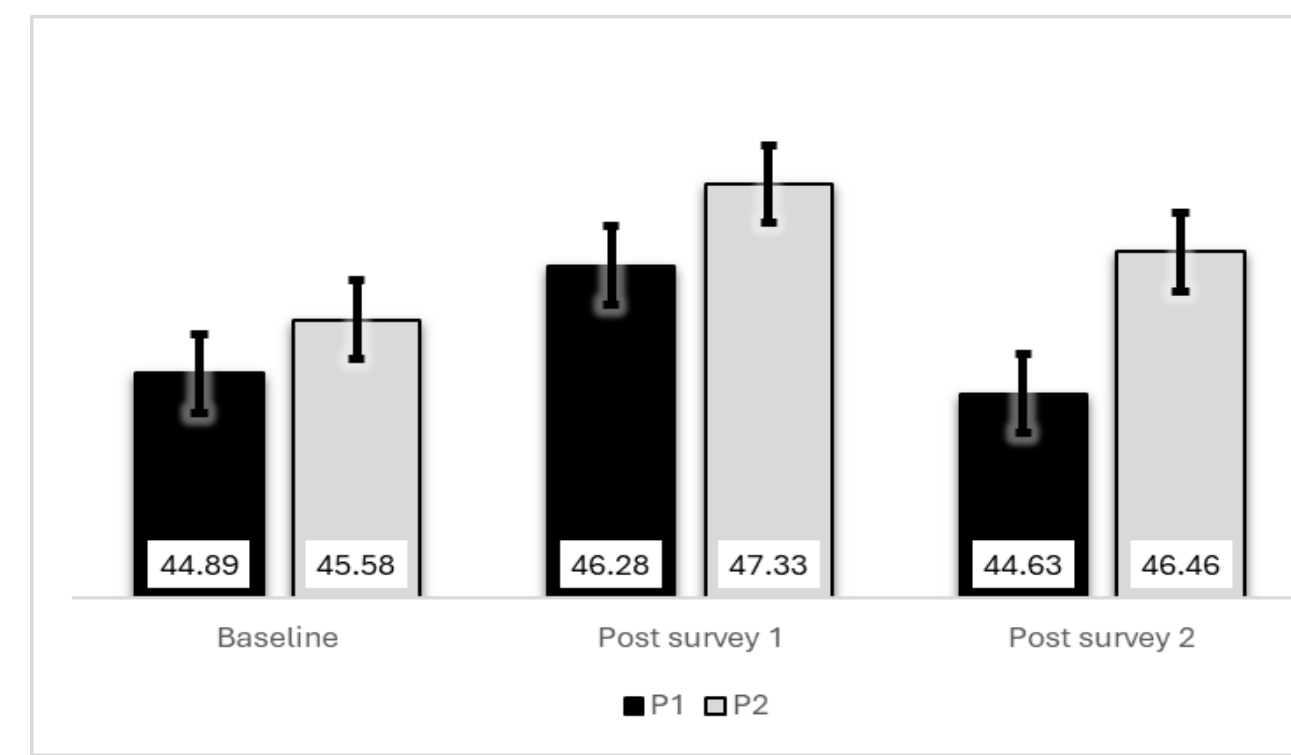
Variable	Count (%)			p
	P1 (n=53)	P2 (n=40)	Total	
Age, mean	22.9	25.5	24.0	< 0.001
Female	39 (73.6)	28 (70.0)	67 (72.0)	0.703
Male	14 (26.4)	12 (30.0)	26 (28.0)	
Previous work experience	47 (88.7)	32 (80.0)	79 (84.9)	0.247
Direct patient care experience	36 (67.9)	29 (72.5)	65 (69.9)	0.634
Marital status, single	50 (94.3)	36 (90.0)	86 (92.5)	0.432
Pharmacy work experience	37 (69.8)	32 (80.0)	69 (74.2)	0.123
Social Determinants of Health (SDoH) experience				0.836
Experience helping patients with SDoH	12 (22.6)	6 (15.0)	18 (19.4)	
Personal experience dealing with SDoH	6 (11.3)	5 (12.5)	11 (11.8)	
Both	16 (30.2)	13 (32.5)	29 (31.2)	
Neither	19 (35.8)	16 (40.0)	35 (37.6)	
Language fluency				0.030
English only	23 (43.4)	10 (25.0)	33 (35.5)	
English + 1 language	22 (41.5)	26 (65.0)	48 (51.6)	
English + 2 languages	3 (5.7)	4 (10.0)	7 (7.5)	
English + 3 languages	5 (9.4)	0 (0.0)	5 (5.4)	
Volunteering per semester				0.265
No volunteering	2 (3.8)	1 (2.5)	3 (3.2)	
1-3 hours	31 (58.5)	20 (50.0)	51 (54.8)	
3-6 hours	10 (18.9)	14 (35.0)	24 (25.8)	
6-9 hours	4 (7.5)	4 (10.0)	8 (8.6)	

QR Code for Qualtrics (QualtricsXM) Survey



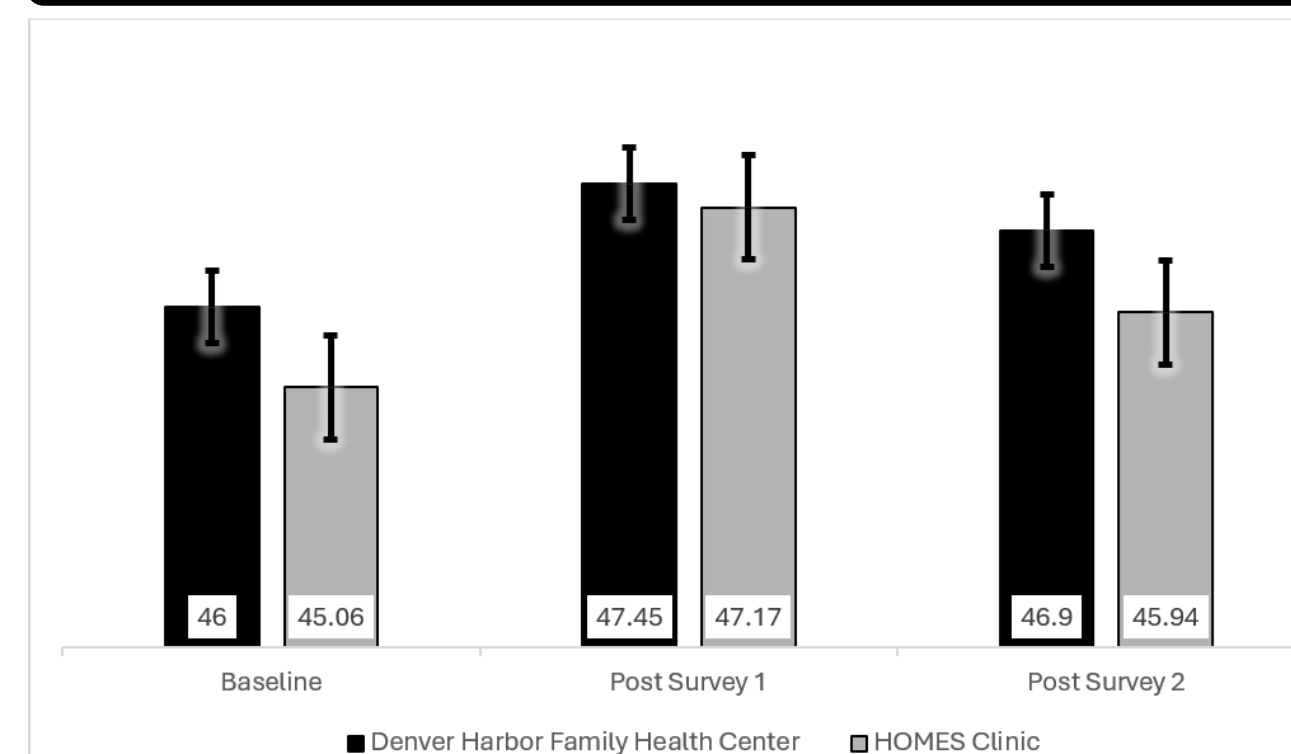
RESULTS

Figure 2. Change in mean global empathy by pharmacy student school year



P1 (Control group) vs. P2 (Intervention group)	p
Mean change between baseline and Post survey 1	0.379
Mean change between Post survey 1 and 2	0.784
Mean change between baseline and Post survey 2	0.417

Figure 3. Change in mean global empathy by IPE site



HOMES Clinic vs. Denver Harbor Family Health Center IPE	p
Mean change between baseline and Post survey 1	1.000
Mean change between Post survey 1 and 2	0.112
Mean change between baseline and Post survey 2	0.335

- Fifty-three P1 and 40 P2 students had 3 complete surveys for analysis (Table 1). The majority of students were single females with previous work or patient care experience. Most students volunteered around 1-3 hours/semester. About a third of each class had experience either helping patients with SDoH or had personal experience with SDoH.
- The P1 and P2 student pharmacist groups were fairly matched with the main difference being age since P2 students were older, and P2 students were also more likely to be bilingual.
- There was no statistically significant difference between the change in mean global empathy when assessed between P1 and P2 students, and when assessed between P2 IPE experiences (Figures 2&3).
- Baseline to post-survey 1 change for P2 students had a mean of 1.75 (p=0.003), and P1 students had a mean change of 1.396 (p<0.001).

CONCLUSIONS

- This study did not show a difference in the change in student pharmacist global empathy when comparing P1 students who had not completed IPE, and P2 students who had been to HOMES clinic or Denver Harbor Family Health Center. It also did not show a difference when comparing IPE sites for P2 students.
- Some limitations of this study:
 - Potential for social desirability response bias
 - Sample size
 - Differences in IPE experiences
 - Not the full KCES-R survey
 - Control group limitations
 - High average empathy scores at baseline

IMPLICATIONS

- While this study has limitations, it brings up the potential that a 4-6.5-hour IPE experience may not be long enough to impact a student's global healthcare empathy and sustain that change.
- There may be opportunities to measure student change in empathy in a longer experience working with SDoH, like their 6-week APPE rotation at Denver Harbor Family Health Center.