

INTRODUCTION

- The Accreditation Council for Pharmacy Education (ACPE) “Standards 2016” outlines in Standard 3 key elements related to the approach to pharmacy practice and patient care. Included in this standard are patient advocacy, cultural sensitivity, and communication. The Guidance document highlights that patient communication should involve demonstration of “compassion and empathy”.¹
- The Jefferson Scale of Empathy – Health Professions Student Version (JSE-HPS) is a 20-item scale used to measure empathy and has demonstrated reliable and consistent measurement in student pharmacists.^{2,3}

Wingate University School of Pharmacy Community Introductory Pharmacy Practice Experience

- 120 hours of Community IPPE and a weekly IPPE discussion course in either the Fall or Spring semester of the first year
- Updated to include a focus on the practice and development of empathy in the patient care setting, beginning in the first didactic year
- IPPE students interview patients at their IPPE site to learn more about their personal health care journey (living with chronic medical conditions, navigating the health care system, achieving adherence with medications)
- IPPE students complete an adherence challenge, being “prescribed” M&M’s or Skittles, to empathize with patients who take medications three times daily
- IPPE students complete reflective exercises on their encounters with patients and their experience during the adherence challenge in the rotation workbook
- The IPPE Discussion Course includes didactic training and discussion on empathy

OBJECTIVE

- To examine: (a) student pharmacist empathy development over the first semester of pharmacy school, and (b) whether early IPPE impacts first-year student pharmacist development of empathy

METHODS

- A prospective, two-group, parallel randomized controlled trial involving first-year student pharmacists enrolled at the main campus was conducted in Fall 2017
- Students were randomized to Fall semester IPPE enrollment (treatment group) or Spring semester IPPE (control group)
- Students in both groups were invited to complete the JSE-HPS on first and last days of the Fall semester. Demographic data were collected on the JSE-HPS and an orientation survey
- The treatment group completed 120 hours of Community IPPE, reflective exercises, and received formal didactic empathy training during the Fall 2017 semester. Rotation sites included retail/chain, grocery store, and independent community pharmacies
- The control group did not participate in IPPEs, reflective exercises, or didactic empathy training in the Fall semester
- Statistical Analysis:
 - Descriptive statistics used to describe the study population
 - Two-tailed independent samples t-tests or chi squared tests were used to examine between-group differences in student characteristics (age, gender, prior pharmacy work experience, baseline empathy scores)
 - Two-tailed independent t-tests were used to examine between group differences in JSE-HPS empathy
 - Paired t-tests were used to examine within group differences

RESULTS

- Data for 72 of 81 first-year student pharmacists were analyzed (89% response rate)
- There were no significant differences between groups with regard to baseline characteristics or empathy scores (Table 1)
- Females had higher baseline empathy scores than males (116.1 vs 106.4, $t=-3.87$, $DF=69$, $p<0.001$)
- Those with previous pharmacy work experience had higher baseline empathy scores than those without previous experience (115.8 vs 109.6, $t=-2.62$, $DF=64$, $p=0.011$)
- In the treatment group, there was a nonsignificant increase in empathy score (1.13, $t=0.63$, $p=0.53$)
- In the control group, there was a significant decrease in empathy score (-4.55, $t=-2.86$, $p=0.01$)
- There was a significant difference in the rate of empathy change when comparing student pharmacists enrolled in IPPE and those not enrolled in IPPE (1.13 vs -4.55, $t=-2.37$, $p=0.02$) (Table 2)

Table 1. Student Pharmacist Baseline Characteristics (n=72)

Student Pharmacist Characteristics	Treatment Group – Enrolled in IPPE (n=32)	Control Group – Not Enrolled in IPPE (n=40)	p-value
Age ≤ 24 years	66%	63%	0.78
Prior pharmacy work experience	63%	58%	0.21
Female	72%	73%	0.87
Baseline JSE-HPS empathy score	113.93	112.59	0.59

Table 2. Change in JSE-HPS Empathy Score

Group	Change in Empathy Score	t	p-value
All students (n=72)	-2.03	1.65	0.10
Treatment Group – Enrolled in IPPE (n=32)	1.13	0.63	0.53
Control Group – Not Enrolled in IPPE (n=40)	-4.55	2.86	0.01

IMPLICATIONS/CONCLUSIONS

- Early exposure to IPPE and empathy training may improve first-year student pharmacist empathy relative to no IPPE exposure

REFERENCES

1. Accreditation Standards and Guidelines for the Professional Program in Pharmacy Leading to the Doctor of Pharmacy Degree. Accreditation Council for Pharmacy Education. Released February 2, 2015.
2. Hojat M, Mangione S, Nasca TJ, et al. The Jefferson scale of physician empathy: development and preliminary psychometric data. *Educ Psychol Measure*. 2001;61(2):349-365.
3. Fjortoft N, Van Winkle LJ, Hojat M. Measuring empathy in pharmacy students. *Am J Pharm Educ*. 2011;75(6):Article 109.