

## Assessment of the Change in Student Empathy Scores After Completion of the First Professional Year of Pharmacy School

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### BACKGROUND

- Empathy is a difficult quality to teach and assess in healthcare providers but arguably is one of the most important to have.
- Empathy is part of the core competencies outlined in the 2016 CAPE standards.
- A new curriculum was introduced in the fall of 2018 for incoming pharmacy students with changes to reflect these new CAPE standards.
- Using a validated survey, empathy can be measured and tracked in students as they develop throughout the curriculum.
- In order to follow the development of empathy, it is necessary to compare scores from baseline to scores to after one professional year.

### OBJECTIVE

- The objective of this study is to assess change in empathy within the new curriculum for students at SIUe School of Pharmacy. The new curriculum was introduced in the fall semester of 2018. This study focused on changes from start of the first professional year (P1), to the start of second professional year (P2).

### METHODS

- This study was approved by the institution's Investigational Review Board.
- A 20-question survey used to measure empathy, validated for use in pharmacy students, was administered to P2 students using an online survey tool early in the first semester of the second professional year.
- The maximum total score on this survey was 140 points, higher scores reflect a higher level of empathy. Data collected from this survey was a mean score of responses.
- Students selected their responses to this Likert scale ranging from Strongly Disagree (1) to Strongly Agree (7).
- The surveys were offered to all students in the professional year.

### METHODS

- Each student was instructed to create a unique identifier to track individual changes in empathy scoring.
- Negatively worded questions were reverse scored during analysis.
- Paired t-test was used to analyze the total mean scores of the baseline and fall 2019 data to determine statistical significance (p value set at 0.05).

### RESULTS

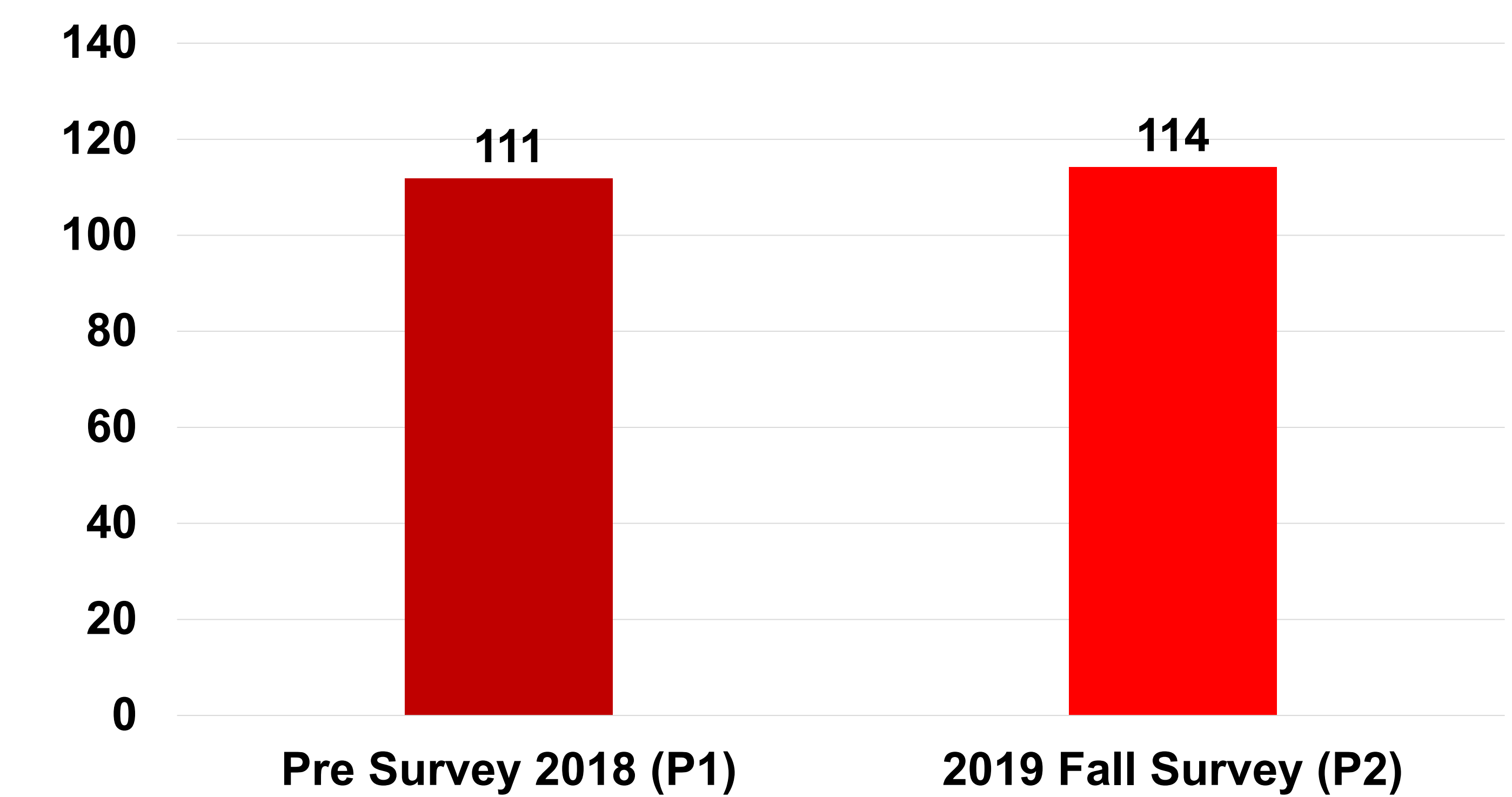
- 84 students were given the opportunity to complete this survey during class time.
- 86% of students completed both P1 and P2 surveys
- There was a 3 point (0.02%, P value = 0.21) increase in the total mean scores from the beginning of the program to after completion after the first professional year.
- The baseline survey total mean scores were equal to 111 points out of 140 points.
- Fall 2019 survey total mean scores were equal to 114 points out of 140 points.
- Women scored higher at baseline and at one year (114 and 117) when compared to men (109 and 111).
- Students who were employed in a healthcare setting showed an increase in empathy while those not employed showed a 1 point decrease.

**Table 1: Basic Demographics**

	Baseline	End of P1
<b>Gender</b>		
Male	38 (49%)	32 (44%)
Female	43 (55%)	39 (54%)
Other/Prefer not to answer	0 (0%)	1 (1%)
<b>Ethnicity</b>		
White/Caucasian	56 (76%)	54 (75%)
Black/AA	7 (9%)	7 (9%)
Hispanic/Latino	2 (3%)	2 (3%)
Asian/Pacific Islander	7 (9%)	7 (9%)
Other/Prefer not to answer	3 (4%)	2 (3%)
<b>Employed in a healthcare setting?</b>		
Yes	46 (59%)	58 (81%)
No	32 (41%)	14 (19%)

### RESULTS

**Figure 1: Total Empathy Score**



**Table 2: Healthcare Related Jobs vs Unemployed**

	Baseline		Fall 2019	
	N	Empathy Score	N	Empathy Score
Yes	47	112	58	115
No	34	111	15	110

### LIMITATIONS

- Students were not required to complete the survey.
- As this is only comparing one year of curriculum to baseline, there is not a good indication of the entire curriculum yet.
- Not all unique identifiers were recorded correctly.

### CONCLUSIONS

- Comparing baseline empathy scoring with scores after completing one professional year.
- Likely that any change that would be seen may take more time and occur during the entire 4-year curriculum.
- Continuation of this study following through graduation would provide more data and insight into their change in empathy.