

# Assessing Baseline Knowledge of Evidence-Informed Practice in Undergraduate Students in Health Disciplines

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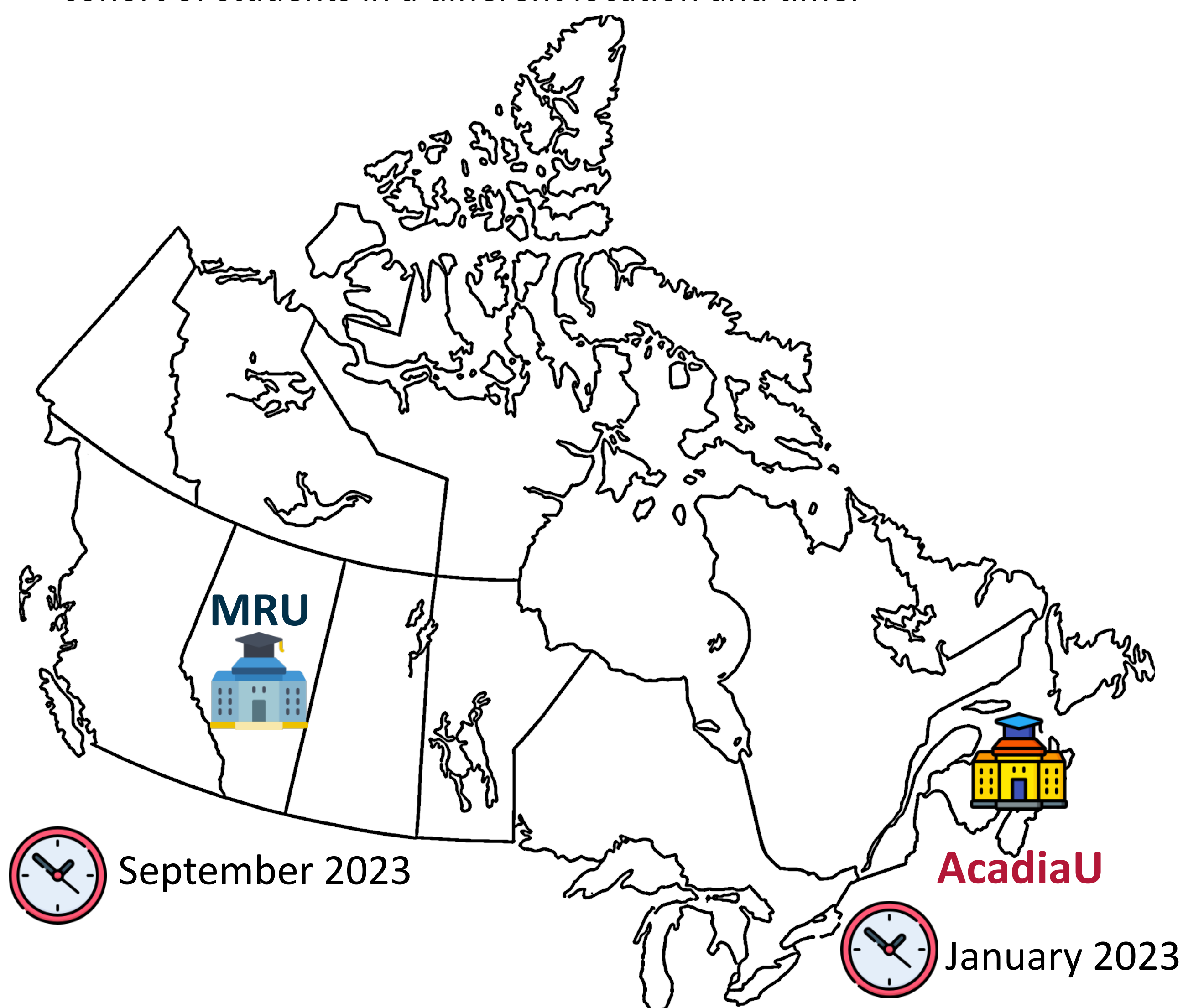
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## INTRODUCTION

- Evidence-informed practice (EIP) is a critical aspect of healthcare education as practitioners rely on the best available evidence to inform their decision-making.
- A method of measuring future healthcare practitioner (student) knowledge in EIP concepts can provide valuable insights into the teaching of research-related curriculum.

## BACKGROUND

- The Evidence-informed Practice for Health Professions Instrument (EIP-HPI) was developed to measure attitudes, knowledge, and confidence in the use of EIP concepts in athletic therapy & physical literacy students.
- This tool was created in attempt to build greater validity/utility compared to the original (EBCKAU) instrument.<sup>1</sup>
- A sample of 29 students from Acadia University (AU) completed the EIP-HPI prior to this study.<sup>2</sup>
- The purpose of this study is to add reliability and validity on a new cohort of students in a different location and time.



## METHODS

- Undergraduate athletic therapy and physical literacy students were recruited from an introductory research methods class at Mount Royal University (MRU) to complete the EIP-HPI.
- Cronbach's alpha was employed as an intraclass correlation coefficient (ICC 2,1)<sup>3</sup> to measure internal consistency with all items pertaining to knowledge, confidence, and attitudes.
- The instrument contains 10 EIP knowledge multiple choice questions worth 1 point each; a score is calculated out of 10 for each participant. Descriptive data analysis was computed for baseline EIP knowledge scores collected at the start of the stats & research methods course.
- Knowledge scores and Cronbach's alpha values from Acadia U were compared to the data from the current cohort (MRU).
- An independent samples t-test was conducted on the two cohorts to determine if undergraduate baseline EIP knowledge differed between institutions.

## RESULTS

- Cronbach's alpha for baseline knowledge scores was 0.85 for MRU.
- Thirty-eight students completed the EIP-HPI with a mean knowledge score of 5.89 (SD=1.64).
- The difference in knowledge scores between the two institutions was not statistically significant ( $p > .01$ ).

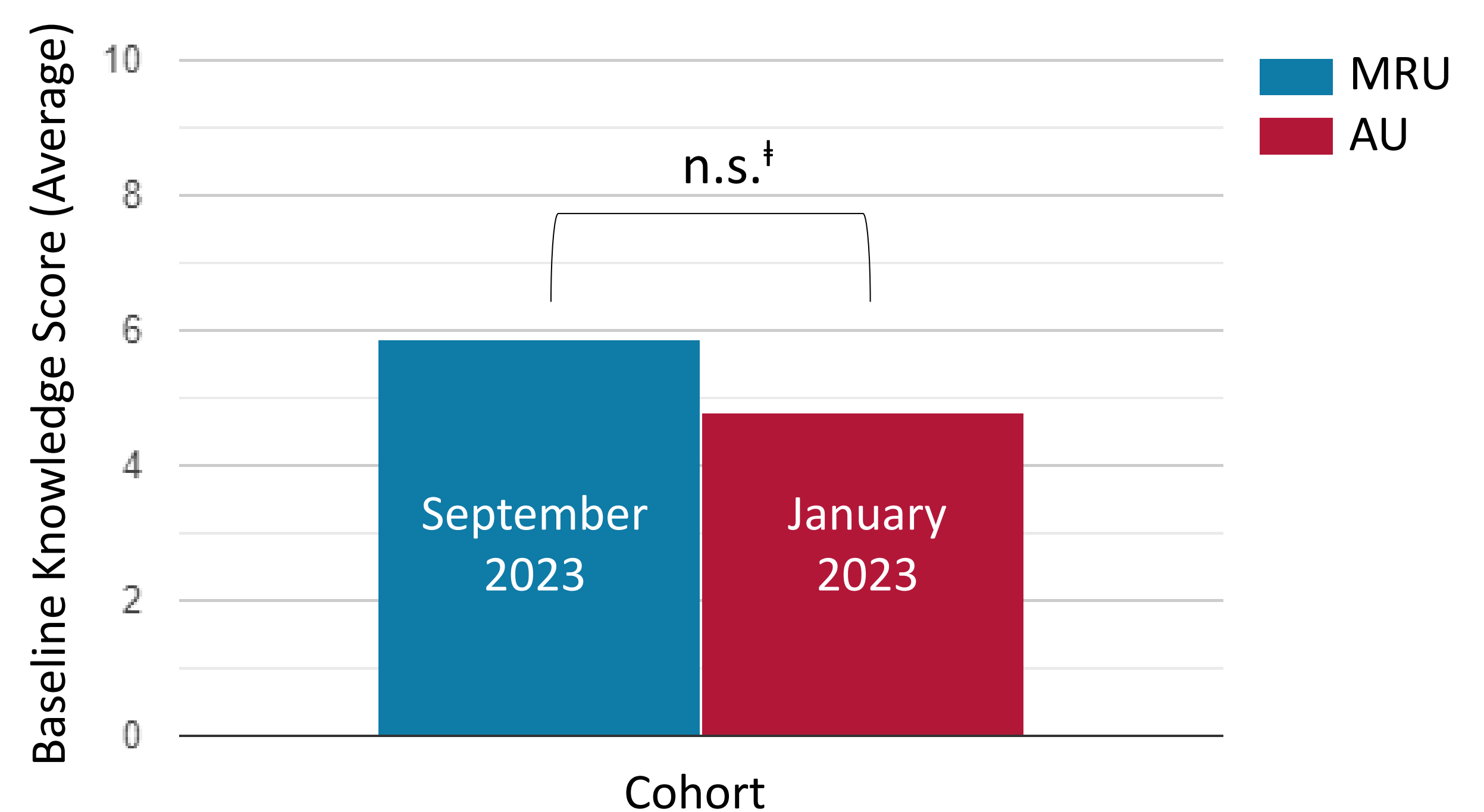


Figure 1. Average overall EIP knowledge score (out of 10 items) of students at MRU compared to AU. †Not significant ( $\alpha=.01$ ).

## DISCUSSION

- Baseline EIP knowledge was measured on a new cohort of students at another institution than previously reported.
- Cronbach's alpha for the two cohorts was the same (.85 for both).
- There was no significant difference between MRU ( $M = 5.89$ ,  $SD = 1.64$ ) and AU ( $M = 4.79$ ,  $SD = 1.82$ ;  $t(65) = 2.597$ ,  $p > 0.01$ ).
- The data gathered from MRU supports the internal consistency and validity observed in the previous AU cohort.

## FUTURE DIRECTIONS FOR RESEARCH

- This study analyzed the differences in EIP knowledge between two cohorts, focusing on internal consistency. The next goal is to analyze test-retest reliability from two completions of the instrument by the same cohort, employing SEM as a measure of absolute consistency.<sup>4</sup>
- Future research will also report on end-of-semester EIP-HPI scores after an educational intervention.
- This utilization of the EIP-HPI aims to identify inconsistencies in a broad range of health education curricula.

## ACKNOWLEDGEMENTS

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## REFERENCES

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- <sup>2</sup>Golden, D. W., Lafave, L., King, C., Hynes, L. M., McAllister, J., & Lafave, M. (2023). Initial Steps to Create the Student Evidence-Informed Practice for Health Professions Instrument. Poster presented at the OHMES 2023 Conference, University of Calgary.
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