

## Introduction

- Faculty retention is an ongoing issue of concern in physician assistant (PA) education.<sup>1</sup>
- According to PA program directors, “return to clinical practice” is the most common reason for faculty attrition,<sup>2</sup> however why some PAs persist in academia while others return to clinical practice remains an area of investigation.
- In previous research, a measure of “intention to stay in academia” for PA faculty was developed and initially validated using the Rasch model. In that research, the Supportive Environment scale emerged as the scale that best captured PA faculty intention to stay.<sup>3</sup>
- The Supportive Environment scale consisted of 19 items that reflected aspects of a supportive academic environment, clustering in the domains of relationships, autonomy, institutional support, and workload.<sup>3</sup>

## Purpose

- To determine whether perceptions of a supportive academic environment differ by faculty age/gender

## Methods

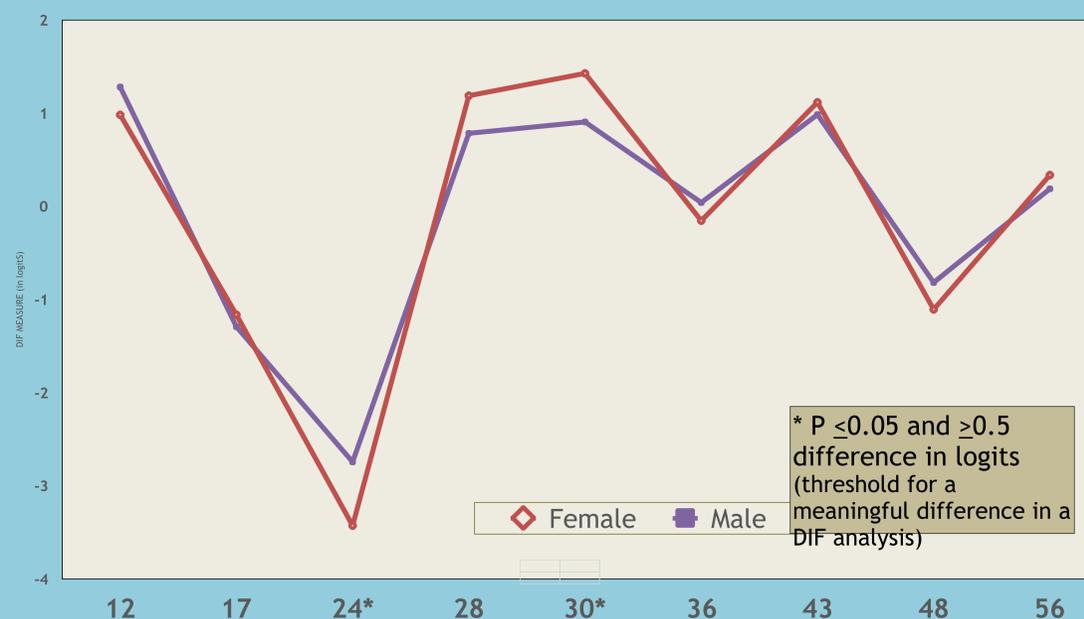
- Secondary analysis** of data from a 2012 national survey of PA faculty.<sup>3</sup>
  - Participants:** PA program faculty in the US with the PA-C credential
  - Instrument:** developed using qualitative methods and pilot tested prior to national administration
  - Response rate:** 48%
- Demographics and responses to the 19 item Supportive Environment scale extracted for secondary analyses.
- Data Analysis**
  - Rasch differential item functioning (DIF)\* analyses conducted using Winsteps software.<sup>4</sup>
  - DIF examined based on
    - Age
    - Gender
    - Clinical practice (whether or not the faculty member was currently in clinical practice)

\*Rasch DIF analyses allow for the determination of whether items functioned in the same way for different subgroups. DIF is measured in logits, which are the equal-interval units measurements in a Rasch

## Results

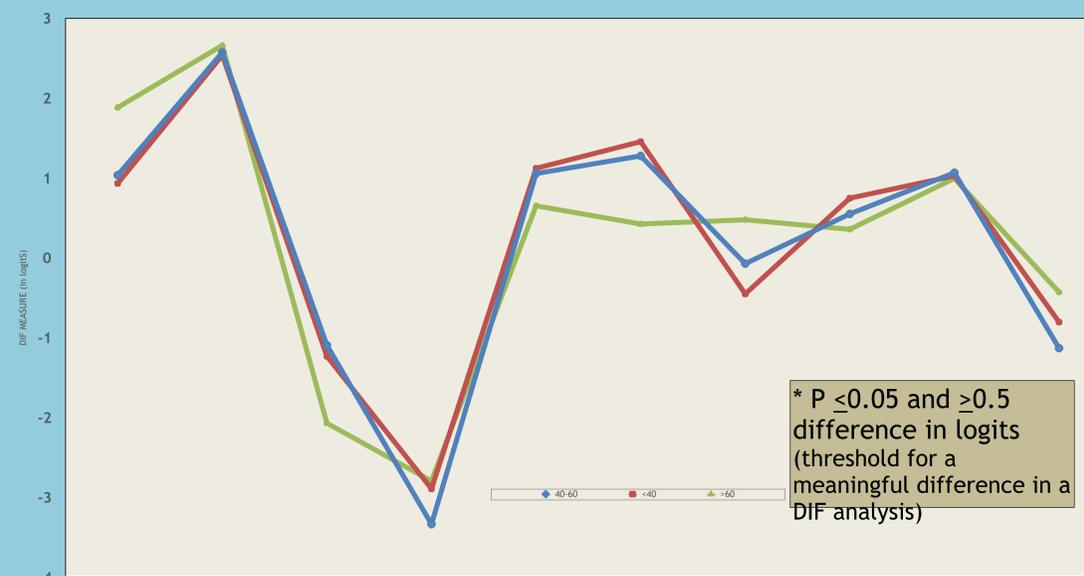
### DIF Analysis by Gender

Selected Items from the Supportive Environment Scale



### DIF Analysis by Age

Selected Items from the Supportive Environment Scale



### Item Key

12 - Institutional mentor	30 - Time demands	48 - Interact with students
14 - Research mentor	36 - Autonomy	51 - Feedback from graduates
17 - Faculty relationships	41 - Sense of community	56 - Support of administration
24 - Desire help students	43 - Fair promotion process	
28 - Recognition administration		

## Results

### DIF Analysis by Gender

- Responses to 2 items differed significantly by gender.
  - Females found it easier to endorse a desire to help students (difference of 0.68 on a 6-point logit scale,  $p < 0.05$ ).
  - Females felt more constrained by time demands (difference of 0.52 on a 6-point logit scale,  $p < 0.01$ ).

### DIF Analysis by Age

- No significant difference in item performance between faculty age <40 versus age 40-60.
- Faculty age >60 performed differently on items relating to institutional mentor, faculty relationships, time demands, autonomy, and feedback from graduates ( $p < 0.05$ ).
- Overall, faculty >60 expressed higher intention to stay in academia than younger faculty (0.60,  $p < 0.01$ ).

### DIF Analysis by Clinical Practice

- Responses to items did not differ significantly based on whether or not a faculty member was

## Discussion

This research reveals little gender difference in PA faculty perceptions of academic environment. While DIF existed for two items, the magnitude of these differences was small, slightly exceeding the threshold of 0.50 logits, which is the standard for identifying DIF in a Rasch analysis.<sup>6</sup> Although previous research has documented salary disparities between male and female PA faculty,<sup>7</sup> this is the first research to examine whether gender or age differences exist in other areas related to PA faculty worklife. Limitations of this study include possible non-response bias. Future research should focus on identifying specific modifiable PA faculty retention factors.

## References

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