



Stress and Belonging: Differences in Educational Experiences Among Diverse PA Students

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Introduction

- Students' demographic backgrounds and experiences during PA school may inform retention and attrition
- In 2017, on-time graduation rates for White students was 95.5% in comparison to Black students (83.1%)¹
- Students' **perceived stress**² and **psychological sense of school membership (PSSM)**, the degree to which an individual feels belonging at their school³, also influence their educational motivation and persistence⁴

Purpose

To better understand differences in students' experiences during PA school, which may inform retention and attrition, we investigated **whether students' gender, race and ethnicity, or student type influence their perceived stress and psychological sense of school membership.**

References

Physician Assistant Education Association, *By the Numbers: Program Report 33: Data from the 2017 Program Survey*, Washington, DC: PAEA; 2018.

Cohen S, Williamson G. Perceived Stress in a Probability Sample of the United States. Spacapan, S, and Oskamp, S. (Eds.) *The Social Psychology of Health*. Newbury Park, CA: Sage. 1988.
http://www.nursing343.com/uploads/6/1/5/1/61515035/perceived_stress_scale.pdf.

Goodenow, C. The Psychological Sense of School Membership Among Adolescents: Scale Development and Education Correlates. *Psychol Sch*. 1993; 30(1):79-90.

Pritchard ME, Wilson GS. Using Emotional and Social Factors to Predict Student Success. *J Coll Stud Dev*. 2003;44(1):18-28. doi: 10.1353/csd.2003.0008.

Grbic D, Sondheimer H. Personal well-being among medical students: Findings from an AAMC pilot survey. *AAMC Analysis in Brief*. 2014;14(4).
https://www.aamc.org/download/377520/data/april2014aib_personalwell-beingamongmedicalstudents.pdf.

Methods

Participants

- **4,050 matriculating students**
 - Female = 75.2%
 - URM = 23.5%
- **2,718 graduating students**
 - Female = 75.3%
 - URM = 17.7%
- **Underrepresented minority (URM) status**
 - URMs: Hispanic and non-single-race White students
 - Non-URMs: Single-race, non-Hispanic White students

Measures

- All students completed the **Perceived Stress Scale (short-form)**.
 - e.g., "In the last month, how often have you felt that you were unable to control the important things in your life?" (1 = Almost never; 4 = Very often)²
- Graduating students completed items from the **PSSM Scale**.
 - e.g., "I can really be myself in my PA program?" (1 = Not at all true; 5 = Completely true)³

Analytic Plan

- Multiple regressions were conducted to investigate whether students' gender, URM status, and the interaction between the two were significantly associated with their stress and PSSM
- Stress analyses controlled for student type (i.e., matriculating versus graduating)

Acknowledgment

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Results

Summary Statistics

			Range	M	SD
Stress	Gender	Males (1)	0-16	5.09	2.70
		Females (0)	0-16	4.85	2.73
	URM Status	URMs (1)	0-16	5.32	2.81
		Non-URMs (0)	0-16	4.94	2.68
	Student-type	Graduates (1)	0-16	5.20	2.76
		Matriculants (0)	0-16	4.92	2.68
PSSM	Gender	Males (1)	1-5	4.23	0.84
		Females (0)	1-5	4.21	0.84
	URM Status	URMs (1)	1.3-5	4.14	0.84
		Non-URMs (0)	1-5	4.24	0.84

Model Results

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|--|---|
| <p>Stress:</p> <ul style="list-style-type: none"> ➤ Gender: Female < Male <ul style="list-style-type: none"> ➤ $\beta = -.04, P = .001$ ➤ URM status: URM > non-URM <ul style="list-style-type: none"> ➤ $\beta = .06, P \leq .001$ ➤ Student type: Graduates > Matriculants <ul style="list-style-type: none"> ➤ $\beta = .05, P \leq .001$ | <p>PSSM:</p> <ul style="list-style-type: none"> ➤ Gender: $\beta = .01, P = .777$ ➤ URM status: $\beta = -.05, P = .022$ <ul style="list-style-type: none"> ➤ URM < Non-URM |
|--|---|
- In both analyses, the gender x URM interactions were not statistically significant and excluded from the final models.

Summary

- Stress was significantly higher among male, URM, and graduating PA students
- Graduating URMs report a significantly lower sense of belonging in their PA programs than non-URMs
- Findings are similar to patterns found among medical students and college students in the STEM field⁵

Conclusion

In a profession that is predominately female and non-Hispanic White, male and URM PA students, who each represent less than a quarter of the student population, may experience unique challenges that increase their stress or decrease their psychological sense of school membership.