RESEARCH BRIEF

The Predictive Strength of the Physician Assistant College Admissions Test (PA-CAT) Scores to Class of 2026 Didactic Year Performance at Miami-Dade College Physician Assistant Program

Miami-Dade College: Class of 2026 Report
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(1) Miami-Dade College

Date: September 2025

Exam Master® | PA-CAT Physician Assistant College Admissions Test

Miami Dade College Physician Assistant Program
Medical Campus
950 NW 20th Street
Miami, FL 33127

Mission:
The mission of the Miami Dade Physician Assistant Program is to educate and train students from a culturally diverse background to become competent primary care physician assistants who will serve the medically underserved patients in urban and rural communities in Florida. The program also promotes academic excellence, high professional standards, and the development of lifelong learners.

Director: Avril Nimblett-Clarke, DMSc, MS, PA-C

Dr. Nimblett-Clarke serves as the Program Director and Chairperson of the Physician Assistant program. She holds a Bachelor of Science degree in Physician Assistant Studies from Howard University and a Master and Doctoral degree in Educational Leadership from A.T. Still University. She has more than 20 years of clinical experience as a Certified Physician Assistant. Her primary clinical practice areas are general pediatrics, adolescent medicine, and sickle cell research. She has also held the roles of Assistant Professor and Academic Coordinator. On a national level, she has served as a facilitator for the Physician Assistant Education Association (PAEA) New Faculty Skill Workshop mentoring new faculty. She is a member of the PAEA leadership committee, where she continues to contribute to a platform of building excellence in leadership among Physician Assistant faculty. Dr. Nimblett-Clarke is passionate about student success and is committed to growing a community of servant leaders." Dr. Nimblett-Clarke was awarded the 2021 Capstone Award of Excellence from A.T. Still University for her capstone project, "Classroom Assessment Techniques in Physician Assistant Education: Improving Learning Gains."

Scott Massey, PhD, PA-C

With over three decades of experience in PA education, Dr. Scott Massey is a recognized authority in the field. He has demonstrated his expertise as a program director at the esteemed Central Michigan University and as the research chair in the Department of PA Studies at the University of Pittsburgh. Dr. Massey's influence extends beyond practical experience; he has significantly contributed to accreditation, assessment, and student success. His innovative methodologies have guided numerous PA programs to ARC-PA accreditation and have improved program outcomes. His predictive statistical risk modeling has enabled schools to anticipate student results. Dr. Massey has published articles related to predictive modeling and educational outcomes. He has also conducted longitudinal research in stress among graduate Health Science students. His commitment to advancing the PA field is evident through participation in PAEA committees, councils, and educational initiatives.

Rajat Chadha, PhD

Dr. Rajat Chadha, with a PhD in Education from Indiana University, Bloomington, is an expert psychometrician with more than 14 years of extensive experience working on multiple significant projects. Dr. Chadha has worked as a psychometrician in high-stakes certification for physicians in the United States. He has also worked on predictive risk modeling for Physician Assistant programs and has published book chapters and peer-reviewed articles in leading journals.

Additional Information

For questions about this research brief, requests for access to the full study, or to express interest in future research participation, please contact:

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Research Brief: The Predictive Strength of the Physician Assistant College Admissions Test (PA-CAT) Scores to Class of 2026 Didactic Year Performance at Miami-Dade College Physician Assistant Program

Abstract

This study examined the relationship between PA-CAT scores and didactic-year performance among students in Miami-Dade College Physician Assistant Program, Class of 2026 (n = 55). The PA-CAT composite score demonstrated statistically significant positive correlations ($p < .05$) with multiple key courses and Semester GPAs. These findings indicate that the PA-CAT serves as a meaningful predictor of academic performance during the didactic phase of PA training.

Physician Assistant College Admissions Test (PA-CAT)

The PA-CAT is a discipline-specific assessment consisting of 240 items designed to measure knowledge and application across nine prerequisite science subjects essential for success in the rigorous Physician Assistant (PA) curriculum. It was developed specifically for PA educators and admissions departments to support a holistic admissions process.

Since its launch on May 1, 2020, and through July 31, 2025, the PA-CAT has been administered to 5,799 examinees. Each examinee receives a composite scaled score, reflecting overall performance across all items, along with three subject-specific scaled scores in Anatomy & Physiology, Biology, and Chemistry. The composite score demonstrates exceptionally high reliability (0.939), making it a dependable measure of prerequisite science knowledge and application skills, as well as a strong predictor of success in PA program coursework.

Relationship between PA-CAT Composite Score and Performance in Physician Assistant Program

The relationship between PA-CAT Composite scores and didactic-year performance in the PA program at Miami-Dade College was examined using Pearson correlation coefficients and tests of statistical significance. The following section discusses these results and interprets the strength of the relationships based on the magnitude of the correlation coefficients.

Correlation Coefficient

The correlation coefficient quantifies the strength and direction of the relationship between two variables, ranging from -1 to +1. A positive value indicates that as one variable increases, the other tends to increase, while a negative value indicates that as one increases, the other tends to decrease. A value of 0 suggests no linear relationship between the variables.

Understanding these relationships is useful for predicting outcomes, particularly when one variable can be measured before the other. At Miami-Dade College, PA-CAT composite scores

were positively correlated with multiple didactic-year courses, including Clinical Anatomy and Physiology, Physical Diagnosis I–III, Clinical Medicine I–III, Pathophysiological Basis of Disease I–III, Pharmacology I, Pharmacotherapeutics, Clinical Pharmacotherapeutics, Clinical Diagnostic Imaging, and Contemporary Issues for Physician Assistants, and GPA across the first four semesters. These results indicate that students with higher PA-CAT composite scores are more likely to achieve stronger performance in these courses than those with lower scores.

Statistical Significance

Statistical significance is assessed using the *p*-value, which represents the probability of observing a correlation coefficient as extreme as the one calculated if the true correlation were zero. For example, a *p*-value of 0.082 means there is an 8.2% chance of observing that correlation (or a stronger one) purely by random variation, assuming no true relationship exists.

A correlation is considered statistically significant when the *p*-value falls below a pre-determined threshold, known as the significance level (alpha). In educational research, the most commonly used alpha is 0.05 (the 5% significance level), while more conservative analyses may adopt 0.01 (the 1% significance level).

At Miami-Dade College, the correlation between PA-CAT Composite scores and several didactic-year performance measures was statistically significant at the 5% level.

Size of the Correlation Coefficient

A higher absolute correlation coefficient reflects a stronger relationship between two variables and indicates greater predictive value. General guidelines for interpreting effect sizes suggest that a coefficient of approximately 0.10 represents a small relationship, 0.30 a medium relationship, and 0.50 or greater a large relationship (Cohen, 1988; Cohen, 1992).

Table 1 reports the correlation coefficients between PA-CAT Composite scores and PA program performance variables, along with their associated *p*-values and interpretations of relationship strength. Statistically significant results are highlighted in red. At Miami-Dade College, PA-CAT composite scores demonstrated large positive correlations with Clinical Anatomy and Physiology, Clinical Diagnostic Imaging, Pathophysiological Basis of Disease II, and Semester 1 GPA, indicating strong predictive value for student performance in these areas. By contrast, correlations with Medical Documentation in Health Care I and II were very low. Other relationships reported in the tables may be interpreted according to the same guidelines.

Scatterplots depicting the relationships between PA-CAT Composite scores and performance variables are presented in Appendix A.

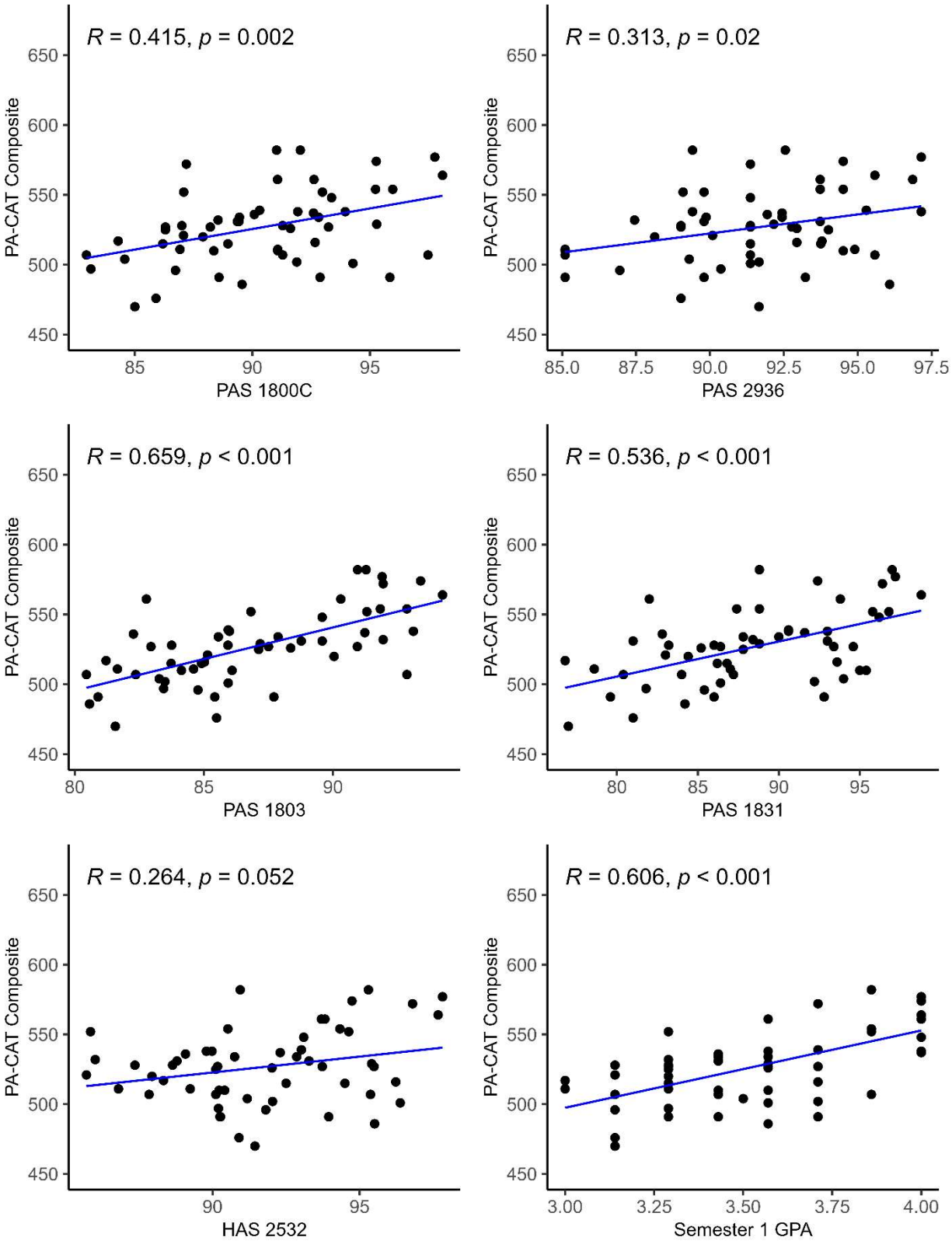
Table 1: Correlation between PA-CAT Composite Score and PA Program Performance

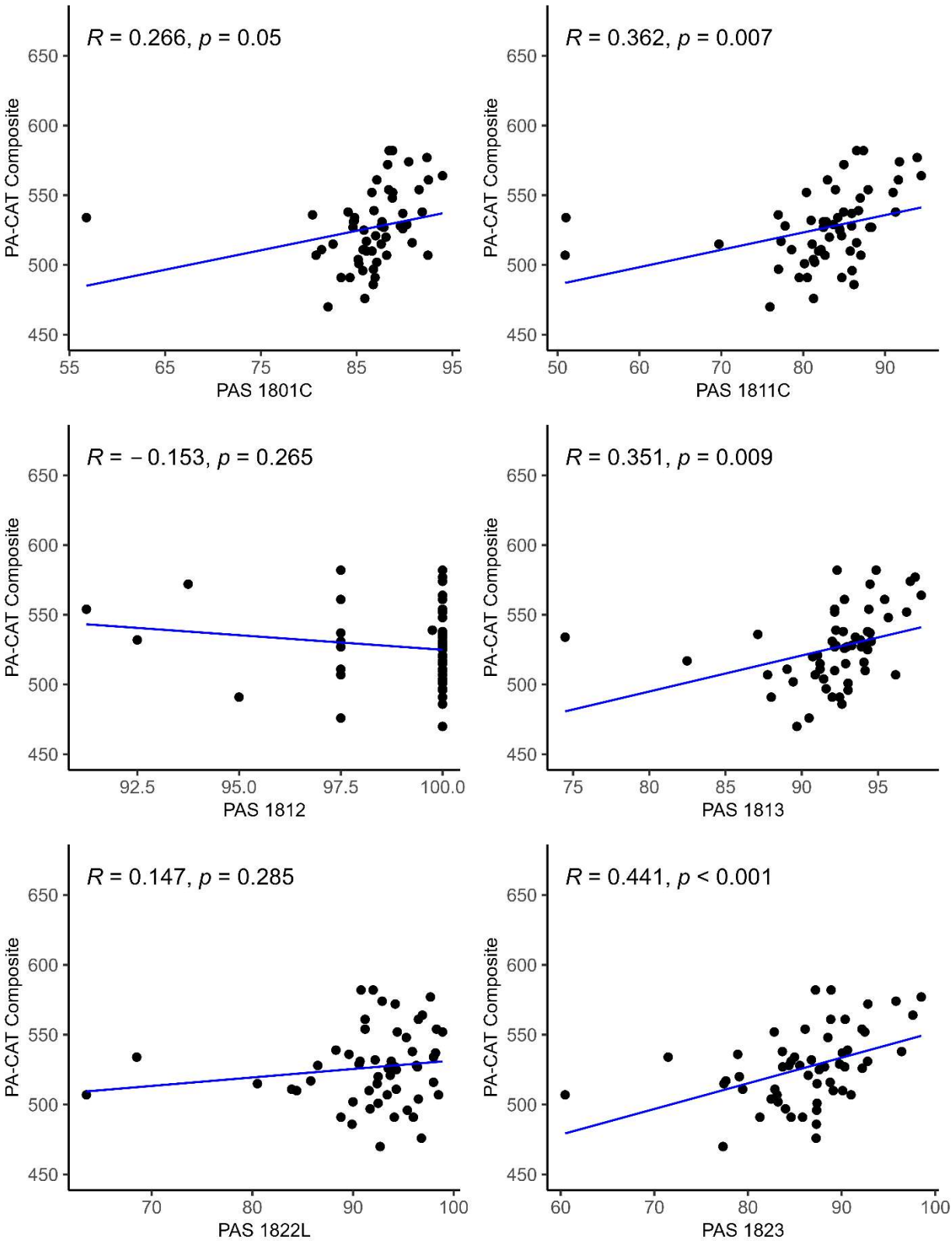
Course	Correlation with PA-CAT Composite score	*p*-value	Size of the Correlation Coefficient
Physical Diagnosis I	0.415**	= 0.002	Medium
Contemporary Issues for PAs	0.313*	= 0.02	Medium
Clinical Anatomy and Physiology	0.659**	< 0.001	Large
Clinical Diagnostic Imaging	0.536**	< 0.001	Large
Medical Documentation in Health Care I	0.264	= 0.052	Small
Semester 1 GPA	0.606**	< 0.001	Large
Physical Diagnosis II	0.266	= 0.05	Small
Clinical Medicine I	0.362**	= 0.007	Medium
Behavioral and Community Medicine	-0.153	= 0.265	Small
Pathophysiological Basis of Disease I	0.351**	= 0.009	Medium
Electrocardiology	0.147	= 0.285	Small
Pharmacology I	0.441**	< 0.001	Medium
Medical Documentation in Health Care II	0.046	= 0.743	Small
Semester 2 GPA	0.469**	< 0.001	Medium
Pathophysiological Basis of Disease II	0.550**	< 0.001	Large
Introduction to Public Health	0.238	= 0.089	Small
Clinical Medicine II	0.488**	< 0.001	Medium
Physical Diagnosis III	0.416**	= 0.002	Medium
Pharmacotherapeutics	0.353*	= 0.01	Medium
Semester 3 GPA	0.478**	< 0.001	Medium
Pathophysiological Basis of Disease III	0.365**	= 0.008	Medium
Surgical Problems and Procedures	0.223	= 0.111	Small
Clinical Medicine III	0.497**	< 0.001	Medium
Clinical Pharmacotherapeutics	0.372**	= 0.007	Medium
Genetics	0.083	= 0.557	Small
Semester 4 GPA	0.282*	= 0.043	Small

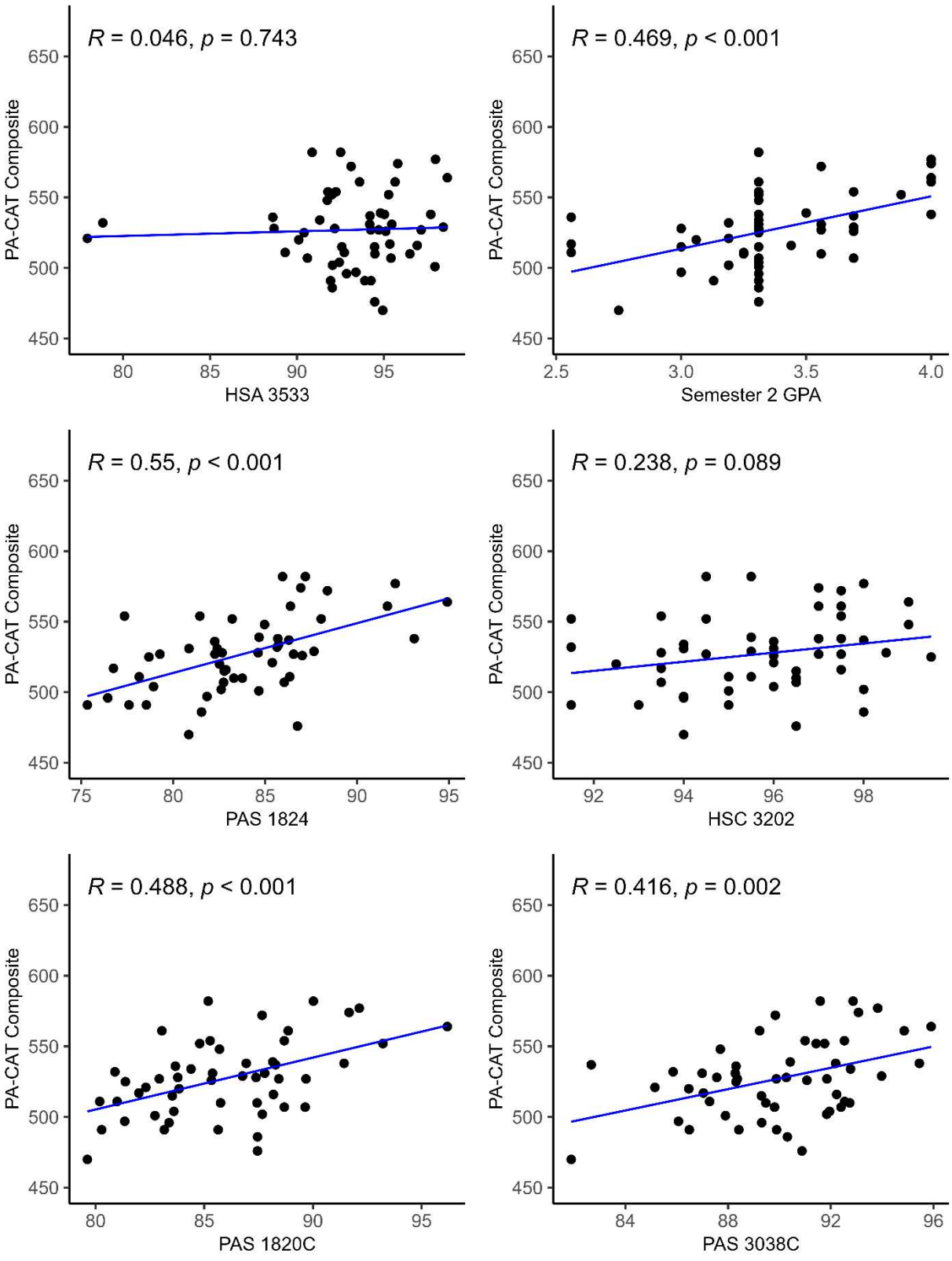
Limitations

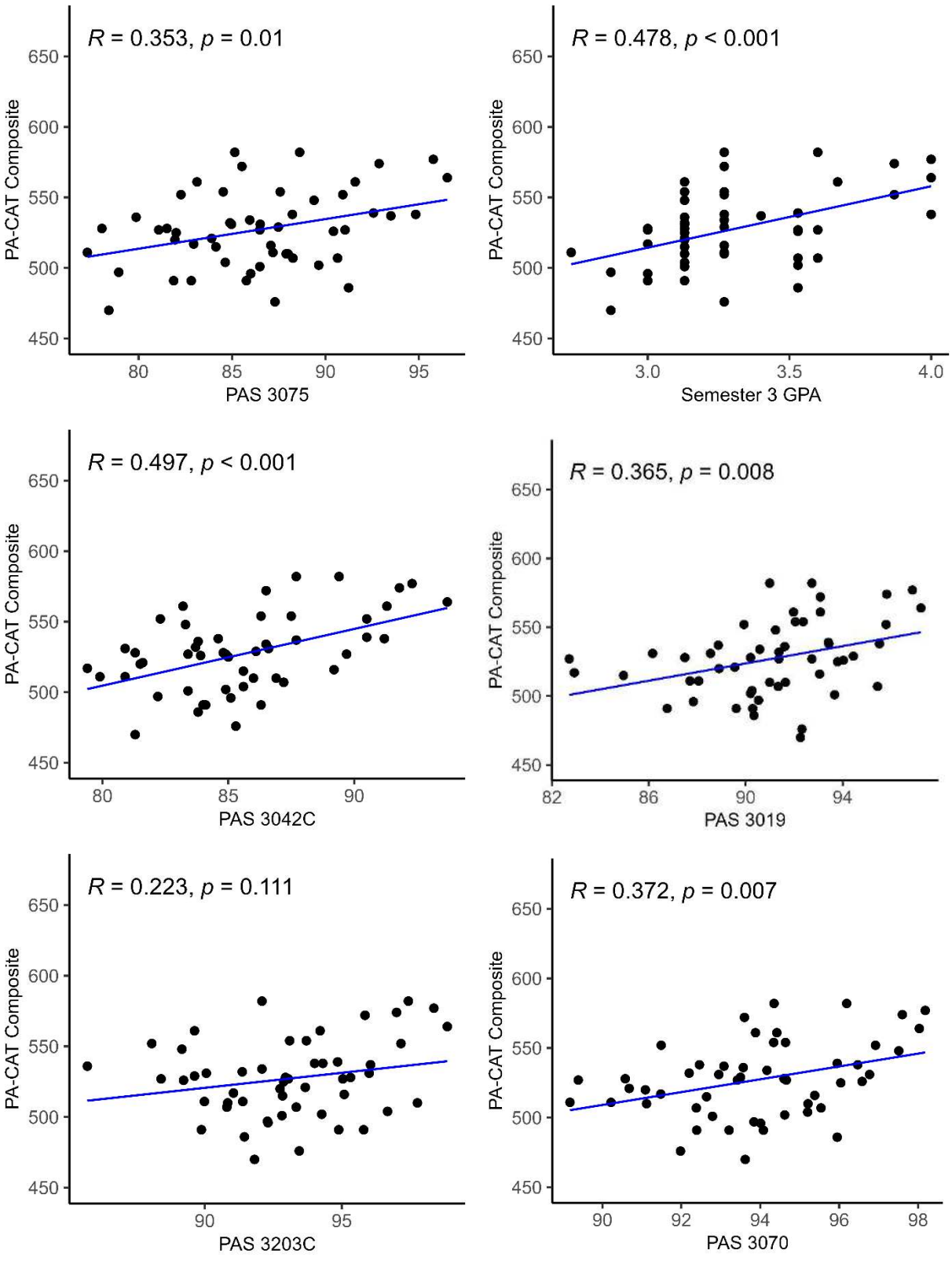
A limitation of this study is that the findings are based on a small sample (n = 55) drawn from a single cohort at one PA program, which restricts their generalizability to other cohorts at the same institution or to PA programs more broadly.

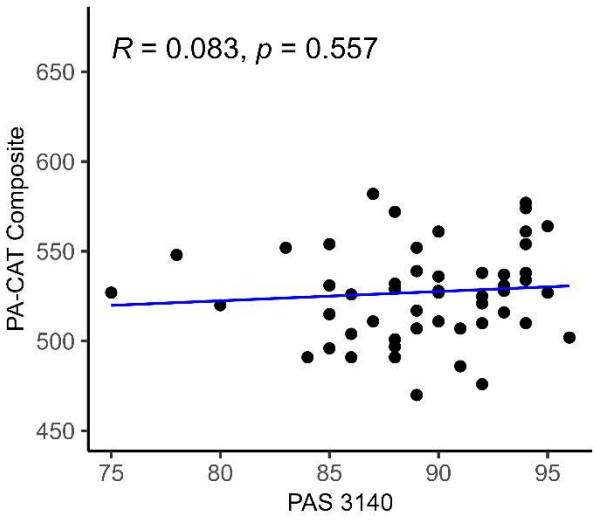
Appendix A: Scatter plots – Relationship between PA-CAT Composite Score and PA Program Performance

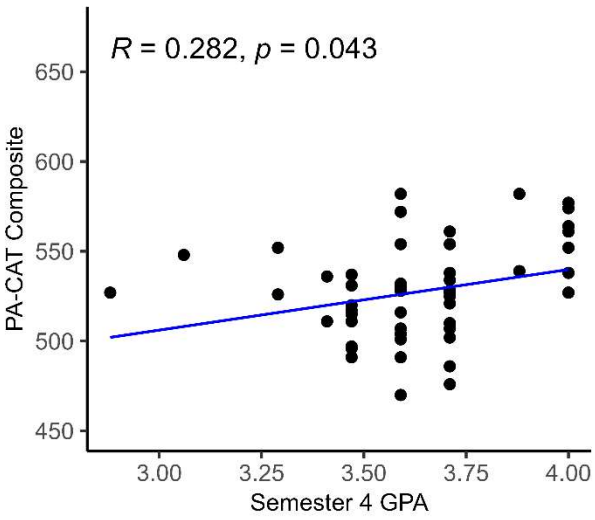



R = 0.266, p = 0.05
PA-CAT Composite
PAS 1801C
R = 0.362, p = 0.007
PAS 1811C
R = − 0.153, p = 0.265
PAS 1812
R = 0.351, p = 0.009
PAS 1813
R = 0.147, p = 0.285
PAS 1822L
R = 0.441, p < 0.001
PAS 1823


R = 0.046, p = 0.743
PA-CAT Composite
650
600
550
500
450
80
85
90
95
HSA 3533
R = 0.469, p < 0.001
PA-CAT Composite
650
600
550
500
450
2.5
3.0
3.5
4.0
Semester 2 GPA
R = 0.55, p < 0.001
PA-CAT Composite
650
600
550
500
450
75
80
85
90
95
PAS 1824
R = 0.238, p = 0.089
PA-CAT Composite
650
600
550
500
450
92
94
96
98
HSC 3202
R = 0.488, p < 0.001
PA-CAT Composite
650
600
550
500
450
80
85
90
95
PAS 1820C
R = 0.416, p = 0.002
PA-CAT Composite
650
600
550
500
450
84
88
92
96
PAS 3038C


R = 0.353, p = 0.01
PA-CAT Composite
PAS 3075
R = 0.478, p < 0.001
Semester 3 GPA
R = 0.497, p < 0.001
PAS 3042C
R = 0.365, p = 0.008
PAS 3019
R = 0.223, p = 0.111
PAS 3203C
R = 0.372, p = 0.007
PAS 3070


R = 0.083, p = 0.557
PA-CAT Composite
650
600
550
500
450
75
80
85
90
95
PAS 3140


R = 0.282, p = 0.043
PA-CAT Composite
650
600
550
500
450
3.00
3.25
3.50
3.75
4.00
Semester 4 GPA