

The Relationship Between The PA School Admissions Exam (PA-CAT) and PA School Anatomy and Medical Science Course Grades

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Purpose:

This IRB approved study was conducted to determine the statistical relationship between the Physician Assistant College Admissions Exam (PA-CAT) versus the course grades in Anatomy and Physiology (A&P) and Medical Science for a single PA program.

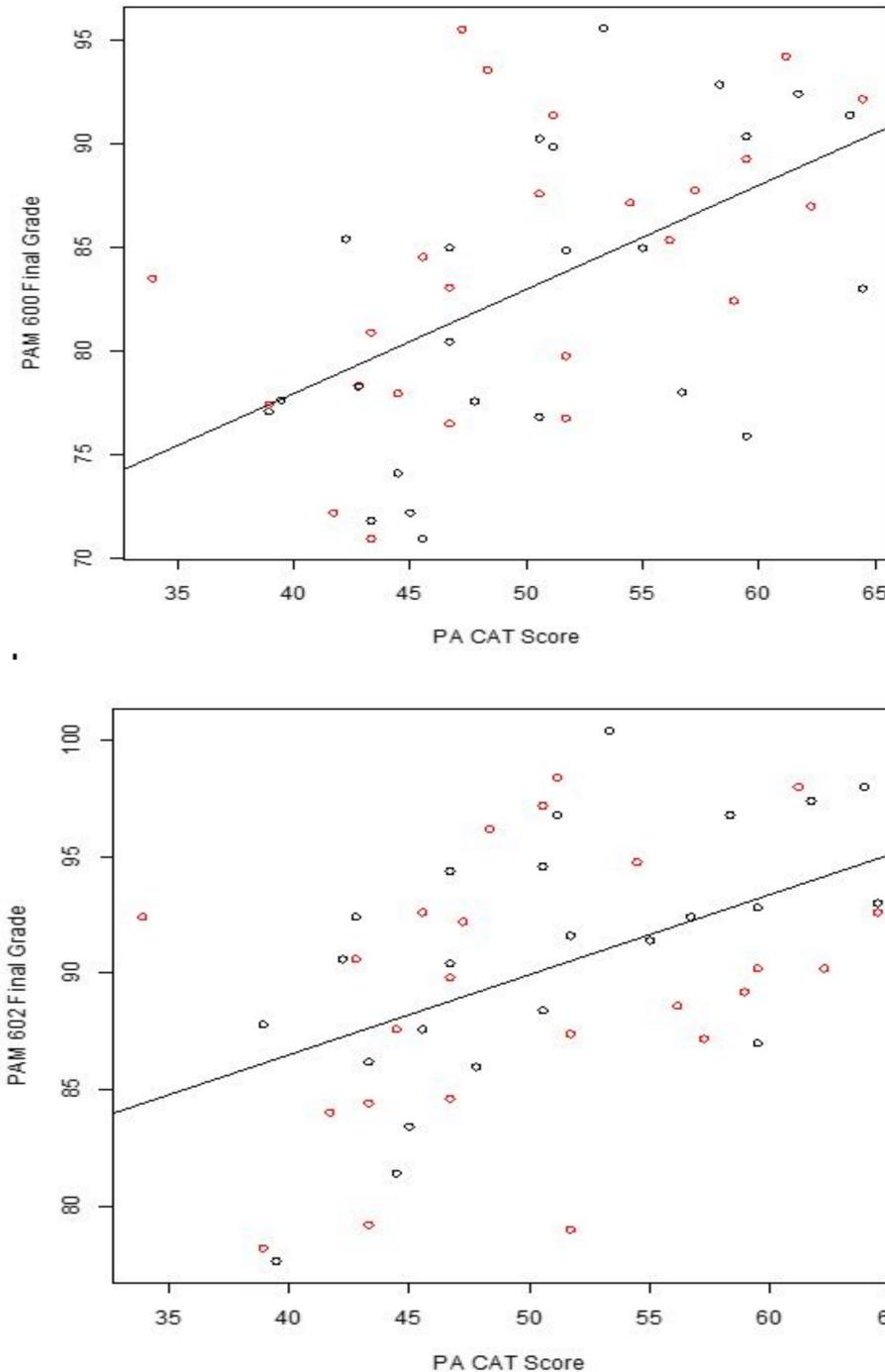
Methods:

The PA-CAT was administered to forty-eight matriculates through a secured, computer-based testing program during their orientation week.

A&P and Medical Science courses were completed during the student's first semester of PA training.

The PA-CAT scores were collected and compared to the final course grades in the two courses at the end of the semester.

Regression analysis was conducted with percent score on the PA-CAT as the independent variable and two dependent variables (A&P course grade- PAM 600, Medical Science course grade-PAM 602).



Results:

A&P course grades had a moderate positive correlation with PA-CAT scale scores ($r=0.54$). Linear regression analysis resulted in an R^2 of 0.295 (p -value = $6.646e-05$) indicating 29% of variance found in A&P grades could be predicted by PA-CAT scores.

Medical Science course grades had a moderate positive correlation with PA-CAT scores ($r=0.47$). Linear regression analysis resulted in an R^2 of 0.224 (p -value = 0.0006803) indicating 22% of variance found in Medical Science grades could be predicted by PA-CAT scores.

Conclusion:

Early results from this research study demonstrates there is a moderately positive relationship between the PA-CAT and course grades in the basic science courses delivered at this institution.

The utilization of PA-CAT may be warranted to facilitate early identification of students who may struggle in the A&P and/or Medical Science course(s).

The results could allow the program to identify students who may benefit from a pre-matriculation study program by utilizing the PA-CAT during admissions.

Limitations:

The limitations of this study included the low stakes nature of the PA-CAT exam delivery. There were no consequences for failure on the exam and therefore no incentive to put optimal effort into the exam for this cohort of students.

References: (1) Butina, Michelle, et al. "Early Predictors of Students at Risk of Poor PANCE Performance." *The Journal of Physician Assistant Education*, vol. 28, no. 1, 2017, pp. 45–48., doi:10.1097/jpa.000000000000107., (2) Higgins, Rose, et al. "Admission Variables as Predictors of PANCE Scores in Physician Assistant Programs: A Comparison Study Across Universities." *The Journal of Physician Assistant Education*, vol. 21, no. 1, 2010, pp. 10–17., doi:10.1097/01367895-201021010-00002.. (3) Hocking, Jennie A., and Kristy Piepenbrock. "Predictive Ability of the Graduate Record Examination and Its Usage Across Physician Assistant Programs." *The Journal of Physician Assistant Education*, vol. 21, no. 4, 2010, pp. 18–22., doi:10.1097/01367895-201021040-00002.. (4) Mcdaniel, M. Jane, et al. "Central Application Service for Physician Assistants Ten-Year Data Report, 2002 to 2011." *The Journal of Physician Assistant Education*, vol. 27, no. 1, 2016, pp. 17–23., doi:10.1097/jpa.0000000000000003.

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