Traditional vs. Non-traditional Student PANCE performance: Is there a difference?

Renee Andreuff Ed.D., PA-C, DFAAPA¹ and Lynne Frydrych MS, RN, CCRP²

¹ Interim Chair and Assistant Professor, D’Youville College Physician Assistant Department,
² Clinical Research Nurse, University at Buffalo

ABSTRACT

Purpose: The purpose of this study was to investigate if a significance difference exists between traditional (age ≥ 24 years at the time of graduation) and non-traditional students (age ≥ 25 years at time of graduation) on the Physician Assistant National Certifying Examination (PANCE) for 157 of our program’s physician assistant graduates.

Methods: Data was analyzed and descriptive statistics summarized for 157 graduates from 2006-2010. The descriptive characteristics included average age of the sample size, proportion of males and females, percentage of pass/fail, and the average admission GPA. T-tests were used to test the differences in means and chi-square analysis was used to test categorical data.

Results: Indicated that there was a statistically significant difference (p < .001) between the characteristics of traditional and non-traditional students on both gender and admission GPA.

Demographically, when non-traditional students (n = 115) were compared to traditional students (n = 40), the results revealed that traditional students were more likely to be younger (23 vs. 32 years, p = .10) and female, 93% vs. 64%, which was a statistically significant difference (p = < .001).

On average, traditional students tended to perform better academically compared to non-traditional students. More specifically, traditional students had higher admission GPAs (3.58 vs. 3.24, p = .001).

PANCE performance revealed that traditional students outperformed nontraditional students, 515 vs. 491, but the difference was not statistically significant (p = .82).

Traditional students outperformed the nontraditional students with an average PANCE pass rate of 95% compared to 85% of nontraditional students. However, this difference was not statistically significant (p = .10).

Conclusion: Predictors of PANCE success have been studied extensively [1-4]. Descriptive characteristics are among the predictors extensively studied and this study will add to the literature which seeks to identify predictors of PANCE success. This study is a single site study and expanding this to include additional institutions may help faculty identify students who may be at risk of failure on the PANCE.

INTRODUCTION:

• Expected physician shortage of approx. 130,000 by 2025.5
• Greater demand for health care providers including physician assistants (PAs).
• The current number of accredited PA programs is 195.6
• It is important for programs to identify possible predictors of PANCE success.

METHODS:

• Full IRB approval was obtained from D’Youville College.
• Retrospective cohort study, graduates from 2006-2010.
• Gender and age at time of graduation were obtained from college’s central data information system or from student files.
• PANCE scores were retrieved from NCCPA records
• SPSS® Version 22 was used for descriptive analysis
• Statistical significance was set at p < .05.

Characteristics of D’Youville College PA Students by Traditional and Nontraditional Status

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Traditional</th>
<th>Nontraditional</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>40</td>
<td>115</td>
<td>.10</td>
</tr>
<tr>
<td>% Female</td>
<td>37</td>
<td>73</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Admission GPA</td>
<td>39</td>
<td>114</td>
<td>.001</td>
</tr>
<tr>
<td>PANCE</td>
<td>40</td>
<td>115</td>
<td>.82</td>
</tr>
<tr>
<td>% PANCE passed</td>
<td>38</td>
<td>115</td>
<td>.10</td>
</tr>
</tbody>
</table>

Note: t-tests used to test for differences in means and chi-square used to test categorical data.

Implications:

• The results revealed only two statistically significant differences between traditional and nontraditional students.
  ❖ Traditional students were more likely to be female and were likely to have higher admission GPAs.
  ❖ Two other poignant revelations, although not statistically significant, were that PANCE pass rate and mean PANCE score between traditional and nontraditional students were numerically striking.

❖ Traditional students pass rate was 95% while nontraditional pass rate was 85% and traditional mean PANCE score was 515 while nontraditional mean score was 491.
❖ Although not statistically significant, it raises the question as to why traditional students score an average of 24 points higher on PANCE.
odb Is there an academic preparedness not examined in this study that could explain this.

Limitations and Future Research:

• Single Site study
• Small sample size
• Is there an academic preparedness not examined in this study that could explain PANCE score differences.
• Future research could include multiple PA programs across the country to increase generalizability.

References