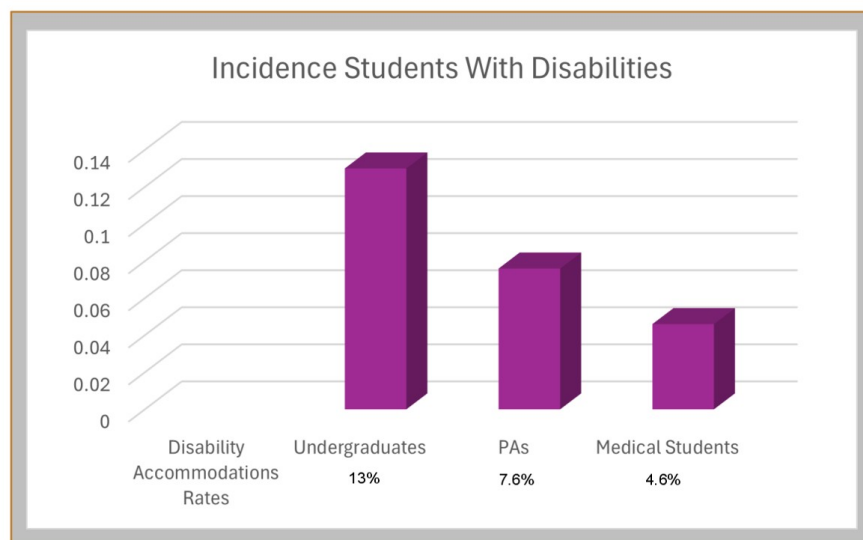


GPA and PANCE Performance Among Students Using Disability Accommodations

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Introduction

About 13% of US college students are using disability accommodations.¹ While use of disability accommodations has been shown to increase retention and college success among this population,² students have lower GPAs than their non-accommodated peers.³ Reports in medical students find similar outcomes for students with disabilities (SWD).⁴ What has not been reported is the use of disability accommodations by PA students, their GPAs and PANCE performance compared to their non-accommodated peers.



Methods

All students who completed the PANCE from four PA Programs were included in this study (N = 1128). De-identified student data included GPA at time of PA program graduation, PANCE score, and whether or not an academic accommodation was used during PA education (yes/no), from five graduating cohorts (2019-2023).

Overall PANCE Failure Rates 7.84% (88/1122)*

Without Accommodations 6.37% (66/1036)

With Accommodations 25.58% (22/86)

PANCE DATA N=1122 (6 students had GPA data, but had not taken the PANCE at the time of data analysis)

Results

The majority of the students sampled had no accommodations ($n = 1042$, 92.4%). Overall mean GPA was 3.60 (SD = 0.32) and mean PANCE score was 454.36, (SD = 79.88). Students without accommodations had a mean GPA of 3.61 (SD = 0.32) and a mean PANCE score of 459.69 (SD = 77.24). Students with accommodations had a mean GPA of 3.50 (SD = 0.30) and a mean PANCE score of 390.10 (SD = 83.57). Two-sample t -tests revealed a statistically significant difference in GPA ($p = .011$) and PANCE score ($p < .001$) between students with and without accommodations (Table 1 and 2).

Hierarchical regression analysis revealed that students with accommodations have GPAs that are, on average, 0.18 points lower than students without accommodations ($p < .001$). Also, students with accommodations score, on average, 64.65 points lower on the PANCE than students without accommodations ($p < .001$) (Table 3).

t -test Results

Table 1
Means and t -tests for GPA by Accommodation Status

Accommodations	N	GPA		t	p
		Mean	SD		
No	1042	3.61	0.32	3.01	0.011
Yes	86	3.50	0.30		

Note. Two-sample t -tests. Statistical sig set $p < .05$.

Table 2
Means and t -tests for PANCE and Accommodation Status

Accommodations	N	PANCE		t	p
		Mean	SD		
No	1042	459.69	77.24	7.98	<.001
Yes	86	390.10	83.57		

Note. Two-sample t -tests. Statistical sig set $p < .05$.

Table 3
Hierarchical Regression Model Results

Student-Led Variables	Dependent Variable					
	GPA (N = 1128)			PANCE (N = 1122)		
	β	t	p	β	t	p
Intercept	3.65			455.22		
Accommodation (y/n)	-0.18	-7.35	<.001	-64.38	-7.83	<.001
ICC School	.422			.067		
ICC cohort (school)	.116			.077		
ICC Student	.462			.856		
AIC	-228.7			12832.1		

Note. Statistical sig set $p \leq .05$. Intraclass correlation coefficient (ICC); Akaike Information Criterion (AIC).

Discussion

- Results echo national data from undergraduate students, and medical students, namely that PA students with disability accommodations have lower GPAs, and lower scores on the PANCE compared to their non-accommodated peers.
- It is important to discern the effects that accommodations have on medical trainee success in order to provide support to students who would not have an equitable learning experience without them. PA SWD had lower GPAs at graduation, but they also had significantly lower first-time PANCE scores and higher failure rates, similar to USMLE data. Medical students with standard time to take the MCAT failed at 6% and 13.9% did not graduate in 4 years.⁵ Compared to extended-time examinees, USMLE failure rates were 17.9% and 32.8% did not graduate in 4 years.⁶ There currently is no data about PA SWD using accommodations on the PANCE or PANRE.
- Since PA SWD have both lower first-time PANCE pass rates, this may be an important variable for programs to evaluate when considering reasons for PANCE failures, and to evaluate when considering attrition data.

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