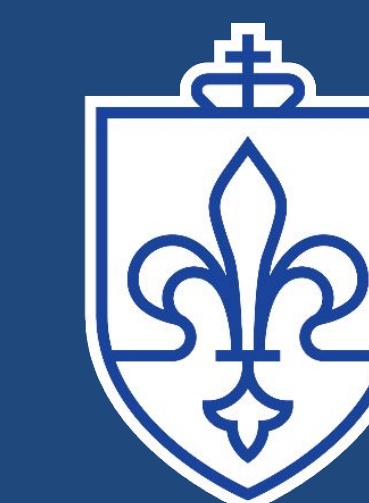


Anxiety and Answer Changing Behaviors in Nursing Students

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INTRODUCTION/BACKGROUND

Anxiety in college-age students has increased significantly over the last several years.

Nursing students who struggle with test anxiety and low examination scores often reach out to faculty for guidance with test taking strategies.

Answer changing behaviors appear to benefit the student more than 50% of the time.

The challenge remains on how to identify which students benefit from answer changing.

PURPOSE

To investigate if a relationship existed between student anxiety and answer changing behaviors.

METHODS

Design: Quasi-experimental prospective research study

Sample: One hundred thirty-one nursing students from a large Midwestern Baccalaureate Nursing Program

Data Collection: Demographic information, analysis of student movement through the examination via ExamSoft and completion of the PROMIS® Short Form v1.0-Emotional Distress-Anxiety 8a tool

Data Analysis: Spearman's correlation coefficient and two-tailed *t*-test

RESULTS

131 students took a total of 503 examinations, making a total 1026 examination item changes.

- 493 examinations (98%) had changes, with an average of 7.83 changes per exam.
- Only 3 students made no changes on any of their examinations.

Item Changes	M (%)	Exams with changes	%
Average change	7.83 (4.03)	Positive impact	51%
Median change	7 (3.5)	Negative impact	28%
Range	0-35	Neutral impact	21%

Participants changed answers from:

- Incorrect to correct a median of 50% of the time.
- Correct to incorrect a median of 25% of the time.
- Incorrect to incorrect a median of 21.5% of the time.

PROMIS anxiety scores did not covary significantly with the rate of answer changing ($r_{sp} = -0.15$, $t[129] = -1.77$, $p = 0.08$). Anxiety was unrelated to negative ($r_{sp} = -0.05$, $t[126] = -0.57$, $p = 0.57$), positive ($r_{sp} = -0.04$, $t[126] = -0.44$, $p = .33$) and neutral answer changes ($r_{sp} = .12$, $t[126] = 1.34$, $p = .18$) in this sample.

Demographic information.

Characteristic	Descriptive Statistics <i>M (sd)</i>	Missing <i>n (%)</i>
Age	21.254 (4.492)	1 (0.763)
GPA	3.599 (0.3)	2 (1.527)
<i>n (%)</i>		
Gender		0 (0)
Female	119 (90.840)	
Male	12 (10.080)	
Race and ethnicity		0 (0)
White	107 (81.679)	
Asian/Pacific Islander	11 (8.397)	
Indian	7 (5.344)	
Hispanic/Latino/a/e	3 (2.290)	
Black/African American	3 (2.290)	
Unmarried	124 (94.656)	1 (0.763)
Academic accommodations	13 (9.924)	2 (1.527)
Employment status		13 (9.923)
Part-time	62 (47.329)	
Not working	54 (41.221)	
Full-time	2 (1.527)	

LIMITATIONS

Participants were enrolled from two different courses and were at different levels in the program which may result in skill variation among the participants. Examinations were written by two different faculty and data collection occurred during the COVID-19 pandemic possibly altering anxiety levels and testing behaviors.

CONCLUSIONS

Anxiety was unrelated to changes (positive or negative) in examination scores. This study did not identify a relationship between answer-changing behavior and anxiety. Findings may aid faculty in considering factors other than anxiety as possible reasons for answer-changing behaviors and future studies should evaluate these factors.