Becoming a Nurse Just in Time: Student Academic Success Survey

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Abstract

AIM: This study utilized the Student Academic Success Survey (SASS), created by the authors, to assess risk of student attrition. Research examined links between SASS score and self-reported GPA.

BACKGROUND: Current nursing student attrition rates are on average 20% and range up to 50% (Tower, Walker, Wilson, Watson, & Tronoff, 2015). Faculty may struggle to identify those students in need of academic support. With early identification, faculty may better provide those students with the support they need. A tool may aid faculty in assessing students' risk of failing a course.

METHODS: With IRB approval, this study utilized the SASS through a web-based survey of full-time undergraduate nursing students. The survey included six demographic items and six visual analog scale style items that assessed students' study habits.

RESULTS: Data did not reveal a correlation between attrition score and self-reported GPA.

IMPLICATIONS: With further development, the SASS tool may show promise in future studies with larger samples. With a tool such as the SASS, nursing faculty may be able to identify students at risk sooner in order to provide early interventions to support students' academic success.

Outcomes

Following a review of this poster, the learner should be able to:
- Identify the need for examining a student's risk of attrition.
- Understand the risk factors for student attrition.
- Explain the use for a tool such as the SASS.

Review of Literature

Six themes emerged as risk factors students face for failing a nursing course. These include holding a job, having dependents at home, not budgeting ample time to study, not studying effectively, low grade point average (GPA), and low undergraduate science grades.

Students deemed individualized attention from faculty as a positive and valuable learning experience, as it forges a connection with the faculty member and encourages students to explore reasons for struggling academically (Wiles, 2015).

The earlier faculty were able to intervene to help a student who showed signs of struggling, the more effective the interventions were (Johnson et al., 2009).

Tools in multiple formats have been developed that show promise in assessing nursing student attrition to promote early intervention of academic support techniques.

Methods

Following IRB approval, this study asked 350 full-time undergraduate students to participate in a web-based survey via weblink in an email.

Student Academic Success Survey

The tool used in this study was an online survey consisting of 12 items developed by the authors titled the "Student Academic Success Survey (SASS)." Scores assigned to each item to calculate risk of attrition. The breakdown of risk level based on score was not visible to the student while taking the survey. The first six items were multiple choice questions asking the student about their background. Questions included:

1. Are you a first-generation student?
2. Do you have dependents at home?
3. Do you work?
4. Please state what you believe your current GPA is.
5. What was your last science course letter grade?
6. Since you have been in college, have you had to repeat any science or math courses?

The remaining six items were asked in a Visual Analog Scare format. Students were asked to rate their responses on a slider where one end was "Never" and the opposite end was "Always." Questions included:

7. Do you regularly plan your study times over the week?
8. Do you regularly study in a study group?
9. When you are confused about a topic, do you seek out the teacher?
10. I find that memorization is often enough to get good grades.
11. In the past, have you missed any classes or clinicals?
12. I find that re-reading class handouts is enough to get good grades.

Responses were scored on a point system from 1 to 77. Scores suggested the following degrees of risk of failing a nursing course:

1 to 16 = no risk

17 to 36 = low risk

37 to 56 = moderate risk

57 to 78 = high risk

Scan the QR code to see the survey:

Results

122 students responded to the survey which represents approximately 35% of full-time undergraduate nursing students enrolled at a regional state university. Of those 122 students, 113 (*n=113*) completed all 12 items. Data was entered into SPSS for analysis. Details of the sample are highlighted in the table below.

Item	Number of Students (n=113)	Percentage of sample
First generation student	51	41.8
No dependents at home	107	88.43
Work 1 to 9 hours/week	42	35
Work 10 to 21 hours/week	23	19.17
Last science grade of A	76	62.3
Last science grade of B	41	33.61
Last science grade of C	5	4.1
Last science grade of D	0	0
Last science grade of F	0	0
Did not repeat a science or math course while in college	111	90.98
Repeated a science or math course while in college	11	9.02

The following chart illustrates the distribution of the SASS scores. Data showed an approximated normal distribution (Shapiro-Wilk = 0.577). Mean attrition score (n=113) was 36.75, with a standard deviation of 10.3.
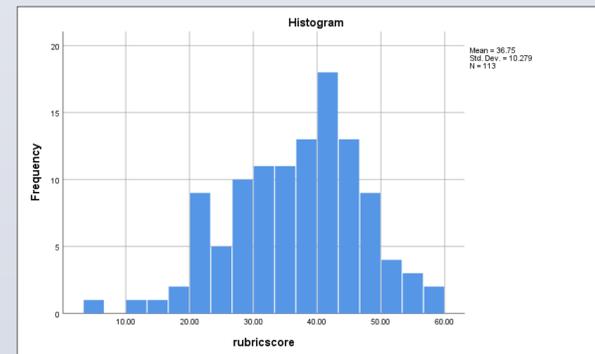
Frequency of self-reported GPA scores is illustrated in the table below.

Grade Point Averages			
		Frequency	Percent
Valid	3.8-4.0	32	28.3
	3.5-3.7	42	37.2
	3.4-3.0	34	30.1
	2.9-2.5	5	4.4
	Total	113	100.0

Results

There was no correlation between self-reported GPA and SASS score ($r = 0.139$, $p = 0.143$). With GPA removed from SASS score due to potential multicollinearity, there was also no correlation ($r = 0.054$, $p = 0.567$). Since the SASS score (minus the GPA score) is the dependent variable and the GPA is the independent variable, the Eta score is 0.178. Eta squared = 0.0316. Therefore, only 3% of the variability in the SASS score is due to the GPA. Correlation is illustrated in the tables below.

Implications

- There may be factors other than GPA not assessed in the SASS that are related to nursing course failure and attrition.
- Further research is warranted into understanding risks of nursing course failure.
- Faculty should strive to intervene early with students who are struggling to maximize academic success.
- Once identified, students at risk of attrition need individualized plans for success.
- Faculty should continue to provide best practices to study, learn, and manage time to all students

References

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*Additional references available upon request:
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"Better is possible. It does not take genius. It takes diligence. It takes moral clarity. It takes ingenuity. And above all, it takes a willingness to try." - Atul Gawande