UNIVERSITY OF TEXAS ARLINGTON

Comparing First Semester Academic Outcomes Between Two BSN Admission Routes

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Disclosures

- Authors
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- Employer
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- Conflicts of Interest and Disclosures
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Objectives

01

Discuss the significance of the problem.

02

Review the study method.

03

Describe the results of the study.

04

Explore the potential implications of the study.

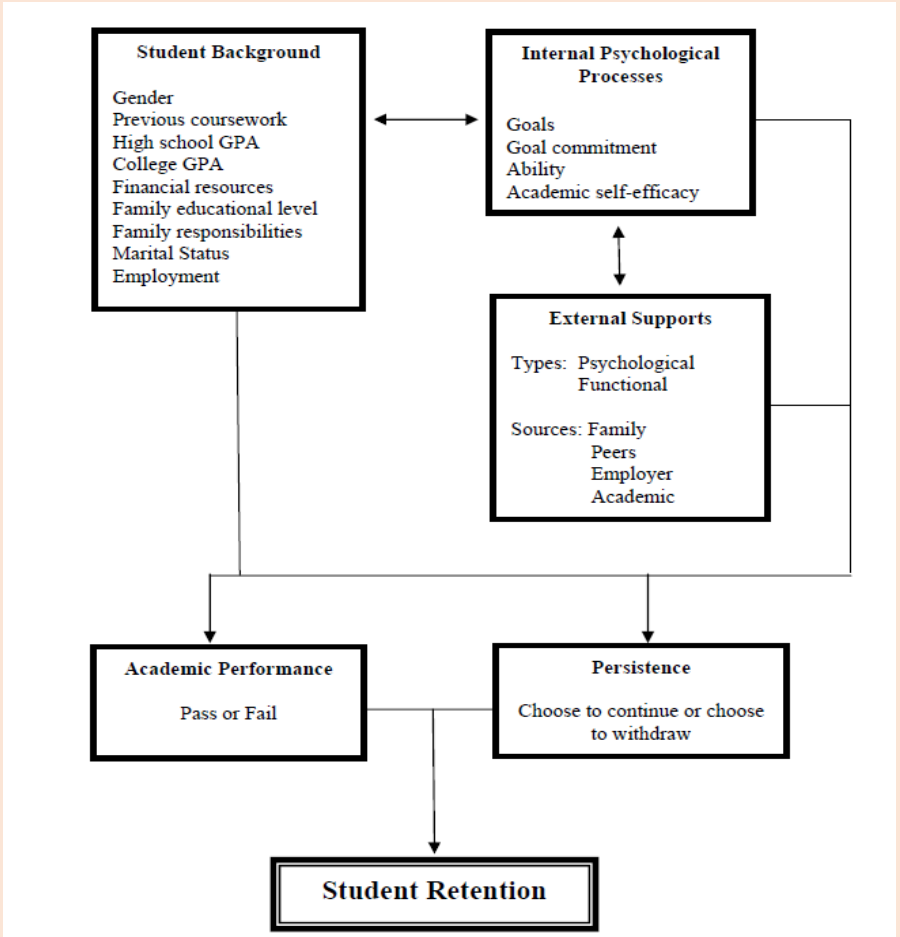
Significance

Optimal program completion rates are required to meet the demand.

Varied approaches to investigating the predictive factors exist.

Student attrition results in the loss of potential graduates yearly.

Shelton's (2012) Model of Nursing Student Retention[1]



Two Different Routes

Traditional Route versus Early Matriculation

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How many programs admit students directly from high school?

Literature Review

Traditional Route Programs (TR)

- Preadmission cumulative GPA[2,3]
- Prerequisite Science GPA[2,3]
- Test of Essential Academic Skills (TEAS)[3,4]

Early Matriculation Students (EM)

- High School GPA[5,6]
- ACT and SAT scores[7,8]

Study Aim

Purpose

To examine the differences among selected academic variables in two groups of students in the same program.

- Are EM students as successful as students who are chosen via a traditional route?
  - Do pre-program variables predict performance in the first semester of a nursing program?

Methods

Methods

- A retrospective matched cohort study design (n=136)
  - Propensity score matching
  - Age, gender, ethnicity, and scholarship level
- IRB approval
- Inclusion/exclusion criteria
  - >18 years of age
  - Completed their entire first semester of the formal nursing program
- Mann-Whitney U tests

Study Variables

- Demographic variables
- Pre-university variables
  - Dual credit
  - SAT scores
- Pre-program variables
  - Science GPA
  - Pre-program GPA
- In-program variables
  - First semester (J1) GPA
  - RN Fundamentals Assessment Technologies Institute (ATI) score

Results

Sample Demographics

	TR (n=68)		EM (n=68)		Total Sample (N=136)		
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	*p*
Age	20.57	.779	20.51	.763	20.54	.769	.704
Merit Scholarship	6659.96	2572.08	6425.22	2658.11	6542.59	2648.41	.504
	n	%	n	%	n	%	*p*
Gender (Female)	57	83.82%	56	82.35%	113	83.09%	.819
Ethnicity							.813
White	18	26.47%	14	20.59%	32	23.53%	
Black/African Amer.	9	13.24%	8	11.76%	17	12.50%	
Asian	19	27.94%	25	36.76%	44	32.35%	
Hispanic/Latino	18	26.47%	15	22.06%	33	24.26%	
Multiple Ethnicities	3	4.41%	4	5.88%	7	5.15%	
Foreign	1	1.47%	2	2.94%	3	2.21%	
First Generation	51	25.00%	53	22.06%	104	76.47%	.686
Dual Credit (Y)	38	44.12%	37	45.59%	75	55.15%	.863

Comparison of Academic Variables

	Total Sample Mean (SD) (n=136)	Early Matriculators (EM) Mean (SD) (n=68)	Traditional Route (TR) Mean (SD) (n=68)	p value
SAT score	1269.94 (91.999)	**1286.78 (89.890)**	1253.09 (91.639)	.013*
Science GPA	3.45 (.426)	3.35 (.448)	**3.54 (.382)**	.013*
Pre-program GPA	3.72 (.232)	3.68 (.228)	**3.76 (.230)**	.022*
J1 GPA	3.38 (.627)	3.29 (.640)	**3.46 (.606)**	.044*
RN Fundamentals ATI	67.78 (10.214)	66.97 (10.329)	68.58 (10.110)	.384

*significant at p<.05

Discussion

Discussion of Findings

- EM students can be as successful as their counterparts on standardized exams
  - RN Fundamentals ATI significantly predicted NCLEX-RN pass on first attempt[9]
- Use of ATI rather than GPA allows for direct comparison
  - Differences in other academic variables

Limitations

- Generalizability
- Matching criteria
- Psychosocial factors

Implications and Conclusion

Future Research Directions

These students' performance needs to be followed to explore relevant connections.

More matched cohort research is needed to understand program outcomes associated with different admission routes.

Other non-academic factors that influence retention and success should be explored.

Implications for Nursing Education

Evaluate evidence-based admission criteria in nursing programs.

Both internal and external factors are related to retention.

A comprehensive, predictive model that includes academic criteria with more holistic approaches should be considered.

Conclusion

- These results are encouraging as they support the premise that benchmark criteria could be used to effectively predict the success of nursing students.
- Early retention efforts may be enhanced by a different selection process.

Article Link

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Thank you for coming!
Questions?