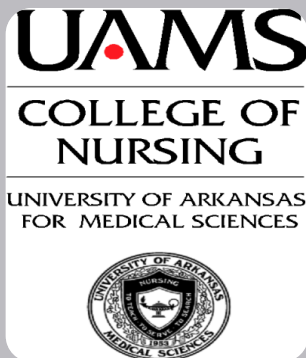




Why do nursing students fail the NCLEX-RN Exam?

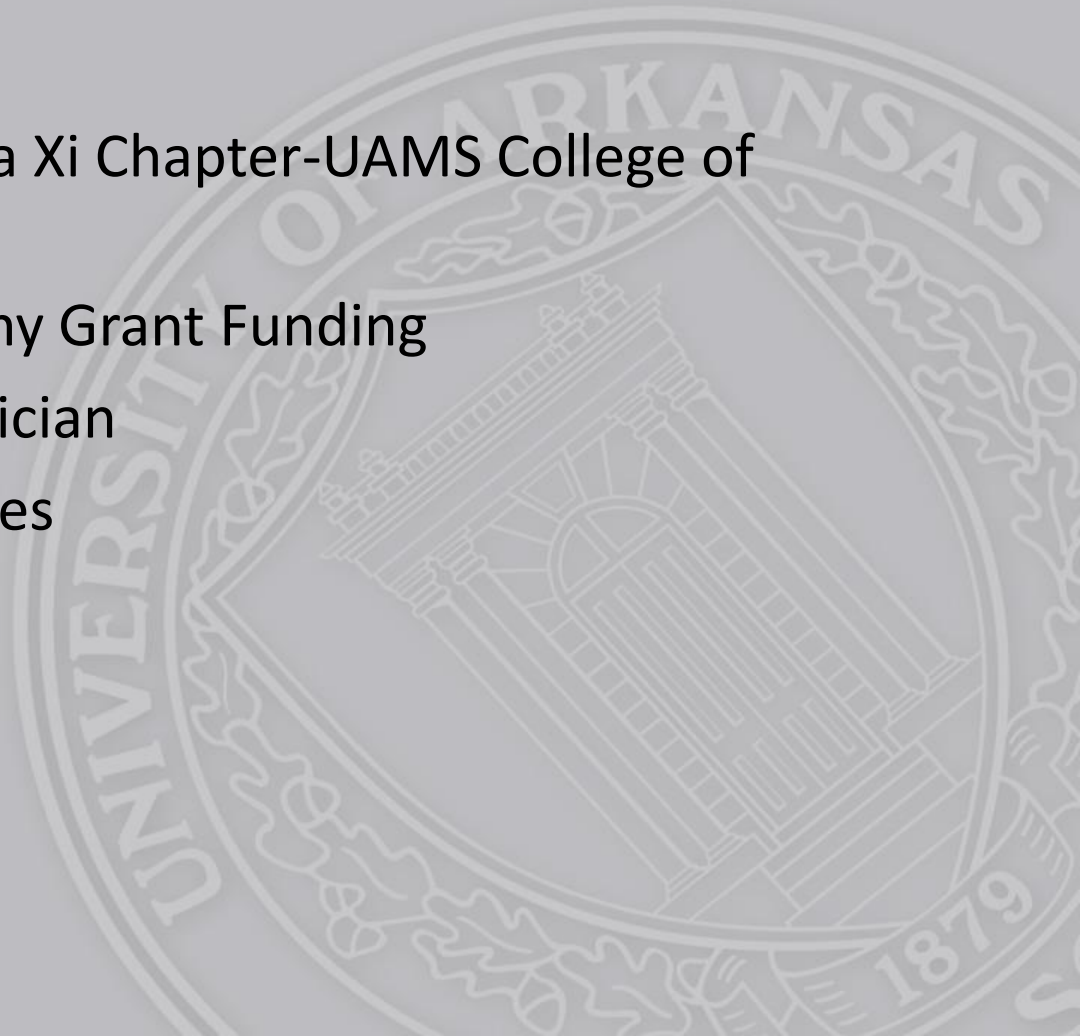
Kelly J. Betts, Ed.D, RN, CNE
Ashley Davis, MNSc, RN, CNE
Stanley K. Ellis, Ed.D

University of Arkansas for Medical Sciences
College of Nursing & Office of Educational Development



ACKNOWLEDGEMENTS

- Sigma Theta Tau, Gamma Xi Chapter-UAMS College of Nursing Grant Funding
- UAMS Educators Academy Grant Funding
- Cynthia Mercado, Statistician
- UAMS CON BSN Graduates



Problem

- 5-15% of students fail the NCLEX-RN on the first attempt
- Lowers Pass Rates
- Gap in Knowledge
- No exact model for success



Purpose

- The purpose of this study was to identify any trends or patterns that may have contributed to BSN graduates that were not successful on the first or subsequent attempts at the NCLEX-RN Exam.



Objectives

- Determine if students who have failed the NCLEX-RN Exam after graduation exhibit trends or patterns in academic performance using variables such as the TEAS V Entrance Exam Scores, Critical Thinking Exam Scores, and the RN Predictor Standardized Exam Scores.
- Evaluate graduated students' experiences on what challenges they felt led to not being successful on the NCLEX-RN Exam using qualitative interviewing.
- Based on the results of the study, identify academic coaching measures that will enhance future success with at risk students prior to graduation.

Research Questions

- What are the academic characteristics of these students while they are in the BSN program related to academic success?
- What are the contributing factors that cause students to be unsuccessful on the NCLEX-RN Exam?
- What are students' perceptions of the causes of their failure on the NCLEX-RN Exam?
- Are there social and academic patterns demonstrated during the BSN program that contribute to this failure?

Methods

- **Mixed Methods**
 - Descriptive, Logistic Regression, and correlational methods
 - Face to face interviewing and Thematic Analysis
- **Subjects/Setting**
 - Graduates from May 2012-May 2016
 - UAMS College of Nursing Students
- **Instruments:**
 - SPSS™, Ethnograph™, Interview Guide, Transcription
- **Quantitative Variables Measures (Academics)**
 - TEAS V Admission Exam Scores
 - ATI Critical Thinking Exit Exam Scores
 - ATI RN Predictor Exam Scores
 - Admission GPA
 - Graduation GPA
 - Number of Academic Coaching Sessions attended
 - Did they fail a course in the program?

Student Demographics

- A convenience sample of 46 subjects was included in the study of which a majority 72% (33) were female and 28% (13) were male. Caucasians represented 78% (36) and African-Americans, 22% (10).
- Academics: The UAMS College of Nursing established a minimum score of 65 or greater TEAS Score for admission to the program. Sixty-one percent (28) had scores of >65 in their TEAS while 39% (18) scored less than the cut-off score.
- The students started off with admission GPA's of 3.21 ± 0.36 and graduated with cumulative scores of 2.83 ± 0.36 . T-test analysis showed a significant difference between the two sets of scores ($t=$, $df = 45$, $p < 0.001$)
- Of the 46 students included in the study, 37% (17) failed a course while the majority, 63% (29) passed the course.
- More than 75% of the students passed the TEAS on the first try, 17% attempted twice and only 4% took the TEAS for third and fourth attempts.

Results: Quantitative

Table 1. Means and Standard Deviations of ATI TEAS Exam Score (N=46)

TEAS Exam Scores	Mean	s.d.
TEAS Reading	76.1%	8.9%
TEAS Math	67.6%	11.7%
TEAS Science	55.8%	10.5%
TEAS English	68.2%	12.5%

Results: Quantitative

Table 2. Means, Standard Deviations, Minimum & Maximum Scores of Academic & Nursing Variables (N=46)

Variables	Mean	s.d.	Minimum	Maximum
Comprehensive Predictor Exam Score	66.7	6.1	54.7	82.0
Critical thinking entrance score	69.7	8.0	47.5	85.0
Critical thinking exit score	72.0	13.0	.0	90.0
Fundamental Exam Score	65.2	6.7	51.7	75.0
Fundamental Exam level	1.4	.7	.0	2
Medical surgical Score	53.5	6.6	38.9	65.6
Medical surgical Exam level	.4	.5	.0	1
Pediatrics Exam Score	59.4	7.2	40.0	71.7
Pediatrics Exam level	1.3	.6	.0	2
Obstetrics Exam Score	66.9	9.5	36.7	83.3
Obstetrics Exam level	1.7	.8	.0	3
Psych Mental Health Score	69.6	9.0	46.7	86.7
Psych Mental Health level	1.8	.7	.0	3
Pharmacology Exam Score	59.9	8.7	43.3	78.3
Pharmacology Exam level	1.2	.6	.0	2

Results: Major Themes

- Lack of student preparation
- Anxiety (emotions)
- Testing Environment Differences
- Length of time to test post graduation
- Lack of student accountability
- Differences between program exam questions and NCLEX questions

Results: Student Quotes

Preparation	Emotions	Testing Experience	Self-Accountability	Length of Time to Test	Question Differences
"I studied about maybe two hours every day, but only a couple of weeks prior to the test."	"I was very nervous. I'm a bad test-taker to begin with."	"Well in my nursing program I tested in a private room. I was able to drink water...my NCLEX testing was totally different..."	"X told me "this is going to be your first failure"...I had to remediate but I don't think I would say that to any student".	I graduated in May, and then I took it in November and did not pass	"...the way the questions are written...in our nursing school of tests and exams it was pretty straight forward...the NCLEX questions needed more critical thinking.."
"I did not do too much to prepare... I worked a lot so I would study an ATI book occasionally in my free time on a night shift."	"I'm a little bit angry. I went into that test... not as prepared... that way, I kind of fully expected not to pass it."	"...You've got to go through this whole re-entrance, they pat you down to make sure you have nothing on you, scan your fingers again and then let us into the testing site..."	"The predictor said that I had a 99% chance of passing. Because of this I thought that I wouldn't have a problem passing the test. The second time around though I did a HURST review and it helped tremendously."	"...I waited 4 months to take the exam and I feel like I would have passed it with no issues if I had taken it sooner."	"I had a lot of med surg questions. A lot of them were select all that apply. I didn't expect to have that many but probably every 5 th question was SATA."

Conclusions

- The Medical Surgical exam proved challenging for the students classified in Level 0, with maximum scores of 65.6%
- Psychiatric Mental Health Exams Scores were higher and correlated with whether or not the student passed or failed a nursing course.
- There were no significant correlations between the pre-nursing GPA and the six nursing variables (ATI Standardized Exam Scores)
- Correlations between Academic and Nursing Variables showed a p-value of 0.02 between the ATI PMH Exam and the TEAS Reading Scores
- Limitation: Study was underpowered, need more students to see if there would have been differences in the correlations between variables.

Implications for Nursing Education

- Model institution testing environment like the NCLEX-RN testing environment
- Ensure that course exam questions are written in a format similar to the NCLEX-RN Exam with the same level of critical thinking as the NCLEX-RN questions.
- Reduce the length of time between graduation and taking the exam for the first time
- Encourage students who have special testing in the nursing program to continue with special testing accommodations when taking the NCLEX-RN Exam
- Evaluate “Out of Sync Students” and ways to limit the amount of time they have to repeat courses.

References

- Breckenridge, D.M., Robinson-Wolf, Z., & Roszkowski, M.J. (2012). Risk assessment profile and strategies for success instrument: Determining prelicensure nursing students' risk for academic success. *Journal of Nursing Education*, 51(3), 161-166. doi:10.3928/01484834-20120113-03
- McCarthy, M., Harris, D., & Tracz, S. (2014). Academic and nursing aptitude and the NCLEX-RN in baccalaureate programs. *Journal of Nursing Education*, 53(3), 151-159. doi:10.3928/01484834-20140220-01