TEXAS WOMAN'S UNIVERSITY

Factors influencing Academic Success Among Nurse Anesthesia Students

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Objectives

- Identify the factors influencing academic success of CRNA students in the didactic learning phase

- Examine the study skills, habits and attitudes of successful CRNA students

- Discov

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Research Question

- Over 17000 applicants in 2019, and only a 20% acceptance rate nationwide
- Academically prepared and highly skilled critical care nurses
- Attrition rate 6% to 9%
  - Some schools reporting attrition rates of >20%
- **What are the factors that influence academic success in NA students during the didactic phase of the program?**
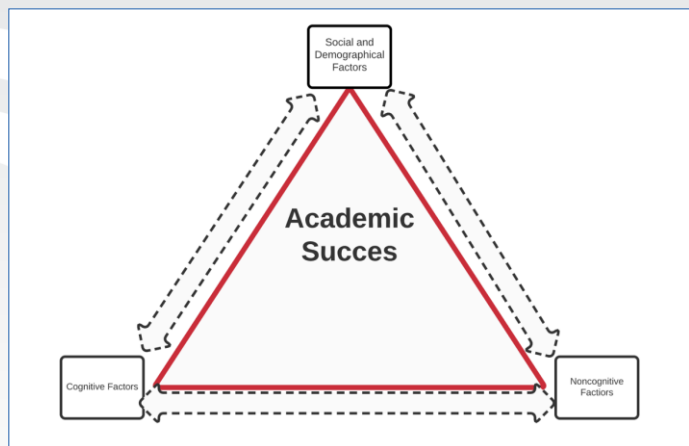
-AANA, 2019   3

ACADEMIC SUCCESS

- The interactions of cognitive, noncognitive and social demographical factors impacting academic success
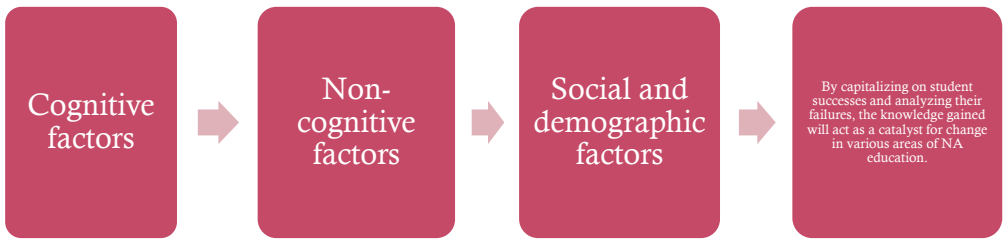

Crede & Kuncell, 2008; Burns, 2011; Pirmohamed et al. 2017;
Rodríguez-Hernándeza et al. 2020; Voyer & Voyer, 2014

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STATE OF THE ART IN NURSE ANESTHESIA EDUCATION

| Cognitive factors | → | Non-cognitive factors | → | Social and demographic factors | → | By capitalizing on student successes and analyzing their failures, the knowledge gained will act as a catalyst for change in various areas of NA education. |

(Burns, 2011; Hulse et al., 2007; Mathis, 1993; Ortega et al., 2013)

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METHODS

Participant	Gender	Ethnicity	Marital Status	Type of ICU	Type of NA Program
1	F	Non-Hispanic	Married, with 2 kids	CCU, Trauma ICU	Front-loaded
2	M	Hispanic	Single	ICU, SICU	Front-loaded
3	F	Non-Hispanic	Single	CCU, Trauma ICU, Neuro ICU	Integrated
4	M	Non-Hispanic	Married, with 2 kids	MICU, ER	Front-loaded
5	F	Non-Hispanic	Married, with no kids	Neuro ICU	Integrated
6	M	Non-Hispanic	Married, with 1 kid	MICU, SICU	Front-loaded
7	F	Hispanic	Married, with 1 kid	ICU	Integrated
8	M	Hispanic	Single	ICU	Integrated
9	F	Non-Hispanic	Married, with no kids	PICU	Integrated
10	M	Non-Hispanic	Married, with no kids	MICU, SICU, Trauma ICU	Integrated
11	F	Non-Hispanic	Married, with no kids	SICU	Integrated
12	F	Non-Hispanic	Single	MICU	Integrated
13	F	Non-Hispanic	Single	MICU, SICU, Trauma ICU	Front-loaded
14	F	Non-Hispanic	Married, with 1 kid	PICU	Front-loaded

- A qualitative descriptive methodology
- 14 CRNA students
- All participants were enrolled in a NA program for at least 18 months and have completed most of the didactic requirements.

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RESULTS

- Six themes emerged from this study
  - (1) utilization of effective study strategies and methodology
  - (2) transition to deep learning behaviors
  - (3) integration of learning styles and technology
  - (4) consideration of individual teachers
  - (5) staying connected
  - (6) adjusting to being an NA student.

Theme One: Utilization of effective study strategies and methodology

- Study skills:
  - Preparing before class
  - Note taking
  - Deliberate repetition
- Memory-retention techniques
  - Senses (visual, auditory, and kinetic

- Study habits
  - Time management
  - Conducive learning environment

Theme Two: Transition to deep learning behaviors

- Deep learning behaviors
  - Examine the purpose, meaning, and significance of learning and studying
  - Link new information to general concepts and principles previously learned for future complex problems or contexts
- Mastery the essential scientific principles
- Comprehension complex contents
- Creation of group study

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Theme Three: Integration of learning styles and technology

- Multimodal approaches to learning styles
  - VARK
  - Differs depending on course contents
- Supplemental learning through technology integration
  - Flashcards
  - YouTube
  - Podcasts

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Theme Four: Consideration of individual teachers

- Student-teacher dynamics
  - Resource
  - Support
- Teacher's behavioral engagement

Theme Five: Staying connected

- Connections with peers, educators and family
- Essential resources
- Social interaction and support

Theme Six: Adjusting to being an CRNA student

- Timely adjustment to new roles
  - New environment
  - Student role
- Modification of self care

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Implications

- Education
  - Forums on study skills, habits and attitudes
  - Incorporation of a variety of teaching delivery methods
  - Family integration
- Practice
  - Creativity in the delivery of contents

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Implications

- Policy
  - Admission criteria revisited
  - Inclusion of noncognitive tool assessment
  - Early warning policy

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Recommendations for Further Studies

- Examine the perspective of students who are practicing CRNAs
- A national discussion on admission criteria

- Evaluate perspective of program directors regarding noncognitive factors

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