



# Years as RN, Specific RN experience, Hours worked while in the NP program

## Do any of these matter for NP program success??

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### PROBLEM

- High number of applicants and limited space
- Need to identify applicant characteristics which predict success in NP program
- Need to identify student characteristics which support success in NP courses

### RESEARCH QUESTIONS

For FNP, Adult NP, and Adult Gerontology Primary Care NP Students

- Does number of years of experience as a RN impact course grade in the Adult 1 NP course?
- Does a specific type of prior RN experience impact course grade in the Adult 1 NP course?
- Does number of hours worked impact course grade in the Adult 1 NP course?

### LITERATURE REVIEW

- Relationship between preadmission characteristics of students (personal characteristics, clinical skills and professional characterizes) based on the opinions of educators reviewed student files are the foundation for some studies. (Crosby et al. 2003).
- Program success based on selected criterion (undergrad GPA, undergrad science GPA, GRE). Findings indicate undergraduate GPA and to lesser degree GRE scores were predictors of success (Andrews et al. 2006; Ortega et al. 2013; Suhayda, et al. 2008).
- Program success best predicted by undergraduate GPA. Length of time as a critical care nurse had a negative relationship to academic progression (Burns, 2011)

Andrews, A., Johansson, C, Chinworth S, Akroyd, D. (2006). Cognitive, collegiate, and demographic predictors of attrition in professional physical therapist education. *Journal of Physical Therapy Education*, 20, (1), 14-21.

Burns, S., M. (2011). Predicting academic progression for student registered nurse anesthetists. *AANA Journal*, 79(3), 193-201.

Crosby, F., Dunn, J., Fallacaro, M., Jozwiak-Shields, C., & MacIsaac, A. Preadmission characteristics of advanced practice nursing students. *Journal of American Academy of Nurse Practitioners*, 15(9), 424-431.

Ortega, K., Burns, S., Hussey, L, Schmidt, J., Austin, P. (2013). Predicting success in nurse anesthesia programs: An evidence-based review of admission criteria. *AANA Journal* 81(3), 183-189.

Suhayda, R. Hicks, F., Fogg, L. (2008). A decision algorithm for admitting students to advanced practice programs in nursing. *Journal of Professional Nursing*, 24, (5), 281-284

### STUDY PROCEDURE

- Course taught in blended format by same teacher
- Data extracted from pre-course survey and course grade reports between 2008 and 2014
- Significance set at 0.05

### STUDY SUBJECTS

- FNP, ANP, and AG Primary Care NP Students in Adult 1 course
- N = 280 (71%) of students taking course between 2008 and 2014

### STUDENT CHARACTERISTICS

Years as RN	Average Grade/SD	Number/Percent	Clinical Speciality	Average Grade/SD	Number	Weekly Wk Hr	Average Grade/SD	Number Percent
One Year	92.2 (5.15)	5 (1.8%)	Adult Acute Care	91.847 (8.00)	194 (66.9%)	0-20 hours	91.1 (11.53)	59 (21.1%)
Two to four years	92.57 (9.02)	116 (41.4%)	Maternal Child Health	90.058 (15.66)	31 (11.1%)	21-40 hours	92 (8.10)	189 (67.5%)
Five + years	90.96 (8.49)	159 (58.8%)	Other	91.842 (4.75)	55 (19.6%)	41+ hours	90.4 (4.53)	32 (11.4%)

### RESULTS

- Does number of years of experience as a RN impact course grade in the Adult 1 NP course?
  - No statistically significant difference in course grade based on years as RN but trend suggests students who were RNs for fewer years had better grades
- Does a specific type of prior RN experience impact course grade in the Adult 1 NP course?
  - No statistically significant difference in course grade related to clinical specialization prior to first NP clinical course but trend suggests students who have Adult Acute care experience had better grades than those with MCH or other specializations
- Does number of hours worked impact course grade in the Adult 1 NP course?
  - No statistically significant difference between hours worked and course grade

### LIMITATIONS

- One school
- Data drawn from survey done for another reason. Required categorization of some data (e.g grouping of clinical specialization reported, number of hours work per week).
- Numerical grades available only for classes in 2013-2014. Mid score for each letter category used for 2008-2012.
- Could not confirm work hours planned were actual work hours during the course.

### DISCUSSION

- No statistical difference between grades of students based on clinical specialization before course, years experience as RN, or expected work hours during course.
  - No support for consideration of these factors in admission criteria.
- While not statistically significant, students who are more than one year but less than five years since licensure and those with adult care experience may have higher grades.
  - Impact of length of RN work experience partially supported by work of Burns (2011).
  - Can guide focus of support for students after admission.
- Confirmatory research based on more focused data planned.

Impact of Years as RN on Course Grade		
Variable	t Value	P-Value
Years as RN	-1.43	0.1463

Impact of Weekly Work Hours on Course Grade		
Variable	t Value	P-Value
Weekly Wk Hr	-0.63	0.5297

Comparison of Impact of Different Clinical Specializations on Course Grade		
Variable	t Value	P-Value
Adult vs MCH	1.06	0.2883
Adult vs Other	0	0.9966
MCH vs Other	-0.91	0.3618

Interaction of Years as RN and Weekly Work Hours on Course Grade		
Variable	t Value	P-Value
Years as RN	-1.43	0.1528
Weekly Wk Hr	-0.58	0.5633

Statistical Support from Biostatistician Dr. Xin Yan



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