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Abstract

In an attempt to look into ways to reduce attrition rates in nursing programs, we did a study to look into what non-academic factors can be looked at in addition to the current standard admission data. The research question of interest was "What non-academic characteristics of students can lead to best chance of success in nursing school?" Our sample included 115 students at Georgia Southern University School of Nursing, who have already completed at least one semester of nursing school. Instrument of collection was an IRB approved 20-item self-reported questionnaire with anonymous and passive content. Data was analyzed using SPSS version 21 software, and the data comparisons were made using appropriate statistical analysis methods such as: cross tab tables, Pearson correlation coefficient, and chi-square. Alpha was set at 0.05 for all analyses. Results indicated a strong positive correlation between students who cope with program stress, assume leadership roles, and adapt to change. Advanced degree was the highest motivation for students >3.5 GPA. Additionally, these students also reported the most utilized weekend study time. However, due to a low sample size and lack of time and resources, we were unable to make full concrete conclusions from our study. Additionally, P-values did not meet our 0.05 goal therefore we were unable to reject the null hypotheses. Further testing using more credible survey, larger sample size, which includes those students who drop or fail out, and data that is not self-reported is needed to make stronger conclusions regarding expanding the nursing selection process.

Rationale

Nursing is a rapidly growing and expanding profession. As a result, nursing schools have created minimum requirements and preferred guidelines to find the best-fit candidates for their program. Because there is a limit set on the teacher to student ratio, only a certain amount of applicants are accepted each semester. When a student fails out or drops out of a program, the school loses money and there is one less graduated nurse that semester. Because this occurs so frequently, we have chosen to explore possible ways to enhance the admission process to better decipher students who would be best fit to succeed in the program.

We have chosen to survey Junior II, Senior I, and Senior II students at Georgia Southern University's School of Nursing for our sample. Since they have already been through the application process, and have completed at least one semester of nursing school, academic success indicators will be available for evaluation. We believe the school's current process may be too general for the increasing pool of applicants. Furthermore, our intentions for this study are not to replace any criteria the school has at this moment. Instead, we wish to provide an additional tool to survey future applicants. We are focused on determining the individuals who represent the highest probability of handling the rigor and demands of the program. Our goal is to provide better understanding of each person in terms of being the most qualified to enter the BSN program.

Introduction and Background

College costs are rising year after year, and many students are trying to select a career with immediate career opportunities after graduation. Nursing is a challenging profession and there are many qualities a person must have in order to be a successful nurse. Simply put, "nurses must have a reliable knowledge base for decision-making, clinical judgment, critical

thinking, and lifelong learning."(Hamilton, 2011, p. 16) Likewise, it is well known that the demand for qualified nurses has increased, and with that so has the interest of students to enter this field has also increased. According to the AACN (2014), "RN enrollment has increased every year for the past 13 years, and the biggest limiting factor is instructors and clinical sites." However, according to a study, "Although enrollments continue to grow the attrition rate nationwide hovers around 50%" (Beauvais, Stewart, Denisco, & Beauvais, 2013, p. 918). This is an alarming amount of students dropping out of their programs, and with it comes many burdens. When a student drops or fails out, the school loses money they would have generated and in addition, a demanded worker not provided. Additionally studies have shown that, "primary reported explanation for student attrition is admission of minimally qualified students to nursing programs who do not demonstrate adequate preparation to begin the rigorous curriculum" (Hamilton, 2011, p 27). In turn, with the national nursing shortage, it is essential we explore what options there are to best predict whether a student is ready to handle the rigors of nursing school.

According to Dr. Melissa Garno, Georgia Southern's BSN director, the school's, "Predictors are GPA, Science courses GPA, and admission exam results" (M. Garno, personal communication September 10, 2014). The admissions office also has an essay about why students want to pursue nursing, but is there more the school can look at? Nursing as a profession has many requirements that extend beyond academic capabilities and, "Non-academic characteristics are qualities which may provide a better appreciation of student suitability to nursing school and the nursing profession" (Hamilton, 2011, p. 21). For example according to one study, occupational self-efficacy "is believed to be a highly effective predictor of student's motivation, learning, and academic performance."(Mclaughlin,

Moutray, & Muldoon, 2008, p. 213) It's these types of characteristics that GPA's and test scores can't indicate. We know ample amounts of students have pre-admission high grades, but as evidenced by our Spring 2014 class, the first semester attrition rate was still at almost 10%. In this regard, we know they must have lacked in areas such as commitment, organization and interpersonal skills to succeed in the program. Therefore in order to minimize the social and economic impact of these attrition rates, it is important to discover if this field is truly for all applicants before they enter the program, and look for the best possible indicators to do this.

Purpose and Description of Problem

The purpose of this study is to attempt to find a correlation among academically successful students with their non-academic characteristics. Our research study will focus on Junior II through Senior II students and what characteristics they possess, and compare them to what their academic success has been. We will survey the subjects' nursing school GPA as their level of performance in school and then cross-reference the responses to the non-academic characteristic questions. We have proposed survey questions that help us understand what nursing students believe is socially, physically, and intellectually pivotal in succeeding in nursing school. To find the answer to our problem, we are analyzing factors such as: study habits, personality factors, motivational factors, self-attributes, and perceptions. This study analyzes scholarly articles and questionnaires to come to a consensus on what nursing students assume makes them successful. With this information, we can better predict students who will complete the program by looking for these characteristics pre-admission.

The insight our study could provide could lead to some new possibilities that the school's admission committee could utilize. Possible admission changes may include but are

not limited to: new or modified questions to be answered in an essay, a pre-admission survey, or perhaps the utilization of face-to-face interviews. Nursing school can be very difficult mentally, emotionally, and physically so this study is important to show what characteristics are essential for the student to progress. Providing evidence and research of how students have or have not prospered in nursing school can help future nursing students thrive. We hope that this study helps strengthen the admission process of Georgia Southern University's nursing program, as well as provide insight on how to reduce the attrition rate of all nursing programs.

Hypothesis

Statistics have shown that lack of success impacts the student, the nursing program, and health care agencies (Hamilton, 2011, p. 2). There are numerous studies and figures regarding what it takes to effectively complete the nursing program. However, only a few have asked exactly what it is that defines those who are exceptionally successful. Our research question states: "What non-academic characteristics of students can lead to best chance of success in nursing school?" In order to provide a basis for our research, we have formulated the following hypothesis: "If students are highly motivated, display an introverted personality, and are able to manage their stress and emotions, then they will be successful in the nursing program."

We are defining success in nursing school as having a consistently high GPA. Another aspect of our focus is on the individual's level of motivation. We are interested in determining nursing student's motivation in nursing school, such as obtaining a top job or gaining entrance into a Masters/Doctorate level program. During the course of this study, we will be closely examining study habits, motivation, personality traits, attitudes, habits, beliefs and values of

nursing students. Our goal is to match our results with the proposed hypothesis that successful nursing students have certain characteristics about them that makes them successful through nursing school.

Significance of study

The importance of this study lies in the fact that if our hypothesis is proven it will be of great interest to faculty and students alike. The nursing profession is at a shortage of nurses while the programs are not able keeping up with the demand. In addition, faculty may be able to integrate the findings into the curriculum, such as giving advice to upcoming pre-nursing and Junior 1 students.

Students, on the other hand, may be able to incorporate findings or reevaluate themselves accordingly to mimic what successful students have done. After all, candidates for degrees offered by the School of Nursing must exhibit many different competencies and characteristics. Generally these qualities begin with solid teamwork, problem solving abilities, sound judgment, critical thinking, and professionalism. Strictly speaking, in the end, results are all that matters. Our task in this research is to provide, honest and measurable proof that underlines the significance of this research.

Review of Literature

Predictors of Academic Success in First Semester Baccalaureate Nursing Students

Peterson, M. Virginia. (2009). Predictors of Academic Success In First Semester

Baccalaureate Nursing Students. *Social Behavior and Personality*. 411-416. *Reviewed by Sergei Pugachov*

The article titled, "Predictors of Academic Success in First Semester Baccalaureate Nursing Students", investigated the role of self-esteem, self-efficacy, and environmental

variables behind student attrition in the first semester of nursing programs. Consequently, the research question was best described as "What is the correlation between the variables of self-efficacy, self-esteem, and environmental variables in terms of predicting the nursing student attrition during the first semester of study?" As a result, a correlational study has been carried out to answer the research question. The purpose of study was inspired by the fact that the rate of new nursing graduates was not sufficient enough to fill the workforce gap left by nurses exiting the workforce. This journal calls for interventions that increase graduation rates while decreasing failure rates. It calls for action of searching for at-risk students, providing intervention and increasing the success and productivity (Peterson, 2009, p. 412).

The study sampled 350 full-time students who are enrolled in the Bachelor of Science in Nursing major. Recruitment took place during the first two weeks of class, on a voluntary basis. The instruments of measurement consisted of measuring past academic performance via GPA, the Rosenberg Self-Esteem Scale, and General Self-Efficacy Scale. The sample size totaled to 66 participants, with 89.4% being female students. Major findings revealed that age, gender and ethnicity had no major bearing on success rate. 72% of the participants reported high self-esteem, 62% reported high self-efficacy, 63% of participants reported having a GPA of 3.0 or better (Peterson, 2009, p. 415). More significantly however, from the 66 people sample, 29 subjects were unable to continue program full-time after the first semester due to failing. Positive correlation was discovered between self-esteem and self-efficacy. Academic performance on the other hand, showed no correlation with either of those variables (Peterson, 2009, p. 413).

Overall, the article is a great example of what to look for when studying characteristics of nursing students. It reinforces our notion that success in the nursing program depends on

previous academic performance – measured by GPA. Not surprisingly, GPA is a major component of our study. Furthermore, our instrument also evaluates similar variables such as self-efficacy and self-esteem. Regarding nursing implications, this article offers valuable information for our curriculum. Faculty can utilize this type of information to shape students attributes and characteristics. I am rating this article 8 out of 10 due significant correlations with what we are studying in our project. The article has a minor limitation due to the absence of a clear hypothesis statement. In conclusion, the overall direction is comparable to what we are trying to achieve in our research class. I highly recommend this article to anyone who is working on a similar research project.

Factors related to academic success among nursing students: A descriptive correlational research study.

Beauvais, A. M., Stewart, J. G., Denisco, S., & Beauvais, J. E. (2013). Factors related to academic success among nursing students: A descriptive correlational research study. *Nurse Education Today*, *34*, 918-923. *Reviewed by Kurt Wahnschaff*

The purpose of the article, "Factors related to academic success among nursing students: A descriptive correlational research study," is to describe what relationships correspond to academic success in undergraduate and graduate nursing students (Beauvais et al., 2013, p. 918). Therefore, the research question could best be stated as, "What factors contribute to academic success in nursing students?" To solve this question, a descriptive correlational research study was performed. The researchers looked for potential relationships between academic success and factors such as: emotional intelligence, psychological empowerment, resilience, and spiritual well being. The researchers set no hypothesis before conducting the study. Beauvais, Stewart, Denisco and Beauvais (2013) stated that the purpose

of the study was because, "Nurse educators need to examine ways to promote student success

by improving our current methodologies and practices."(p. 919)

       To conduct the study, the researchers used a convenience sample of 244 undergraduate

and 272 graduate students. The instruments utilized were the Mayer-Salovey-Caruso

Emotional Intelligence Test, Spreitzer Psychological Empowerment Scale, Wagnild and

Young Resilience Scale, the Spiritual Well-Being Scale, as well as a background data sheet

(Beauvais et al., 2013, p. 919). After analyzing the data in the PASW Statistics 18 program,

the results found that "academic success correlated with overall spiritual well-being,

empowerment and resilience" (Beauvais et al., 2013, p. 918). In contrast, the results did not

find a strong correlation between academic success and emotional intelligence.

       This study has many strengths that added to the validity of the data collected. For

example, the study used four proven methods of obtaining data about the factors they

inquired. In addition, the study was well rounded and tested a variety of different factors

equally. However, the major limitation of the study is that it did not determine which of the

factors that correlate with academic success had the most significance. For example, even

though both strong empowerment and resilience correlate to nursing academic success, maybe

resilience does so more. Overall, I would rate this article as a 9 out of a 10 with strong support

to its findings that help answer the research question. This information can be used to base

future qualifications for entrance into nursing school. In conclusion, this study is very similar

to ours and can be used to backup information we may reveal from our study.

Academic success or failure in nursing students: Results of a retrospective observational

study

Lancia, L., Petrucci, C., Giorgi, F., Dante, A., & Cifone, M. G. (2013). Academic success

or failure in nursing students: Results of a retrospective observational study.

Nurse Education Today, *33*(12), 1501-1505. *Reviewed by Jacob Youmans*

The aim of the article, "Academic success or failure in nursing students: Results of a

retrospective observational study", is to explore what dictates success or failure in nursing

school by evaluating scores from the admission exams and grades once in the program. The

research question of this study is "What factors contribute to academic success or failure

among nursing students? (Lancia, Petrucci, Giorgi, Dante, & Cifone, 2013, p.

1501)." Addressing and solving this question was completed by through the use of a

retrospective observational study. The researchers wanted to be able to target what was

causing failure in nursing school so that it could be addressed and success would increase. It

is widely accepted that factors such as age, gender, ethnicity, and the recruiting process all

have influence on success or failure in nursing school (Lancia et al., 2013, p. 1501). In

completing this study, researchers surveyed 1,006 graduated nursing students all from

different nursing programs. Of these 1,006 students, 652 were female and 354 were males and

the average age was 24 years old. The students who "matriculated from 2004 to 2008, were

observed retrospectively until the end of the legal duration of the program to evaluate their

academic success or failure" (Lancia et al., 2013, p. 1502). Additionally, the students were

surveyed on what their grade performance was during duration of nursing school as well as

their score upon admission to the program.

According to the results of this study "the average diploma grade was a 72.94/100,

with a slightly lower value in the students who had attended upper-secondary schools

specialized in technical education compared to those who had attended other upper-secondary

schools and a higher value for the females compared to the males" (Lancia, et al., 2013, p. 1503). Also there was no correlation found between "the upper-secondary diploma grades and the nursing degree program admission scores" (Lancia et al. 2013, p. 1503) It was found that not only did the female subjects have a higher rate of graduation but also their final grade performance was higher compared to male subjects (Lancia, et al., 2013, p. 1503).

This article provided a plethora of valuable information that can contribute to increasing success in students who are in nursing programs. It was unique in the fact that it was retrospective and observed students that had already graduated or failed to do so. However, there are limitations when conducting a study that is retrospective considering time has passed and people have changed. I would rate this article at a 7 out of a 10 because it is very informative and respectable. These findings can correlate to nursing school by improving grade performance, admissions, and graduation rates. Overall, I think the researchers did a phenomenal job on this article and study and have established the means of improving the process of producing successful nurses and nursing students.

The role of personality and self-efficacy in the selection and retention of successful nursing students: a longitudinal study

Mclaughlin, K., Moutray, M., & Muldoon, O. T. (2008). The role of personality and self-
efficacy in the selection and retention of successful nursing students: a
longitudinal study. *Journal of Advanced Nursing*, *61*(2), 211-221. *Reviewed by*
David Maxwell

The purpose of this study was to look at self-efficacy and personality factors to predict academic performance in nursing students in an attempt to reduce attrition rates. The research question could best be defined as, "What characteristics make up nursing students who

graduate the program?" No particular hypothesis was stated, but the article provided

background research showing self-efficacy as an evaluative factor, as well as debates on

academic successes based on personality types.

A longitudinal study was conducted to examine the role of "both occupational and

academic self-efficacy in predicting academic performance and attrition in nursing students"

(Mclaughlin et al., 2008, p. 211). Questionnaires were administered to 384 nursing students in

the first year and program completion over a course of 3 years. Occupational self-efficacy was

measured using a 10-point scale in which respondents indicated how confident they were on a

given task. Academic self-efficacy was measured on a 5-point scale in which respondents

indicated level of confidence by completing educational requirements for each career. The

personality measure was a 48-item measure comprised of four classifications of personalities

including extraversion, neuroticism, psychoticism, and a lie scale. The independent variable

was whether or not the student completed the program and the dependent variables were the

dimensions of personality and the two facets of self-efficacy.

The most significant findings of this study is that those who were found most likely to

withdraw were the students who scored higher in the psychoticism personality (McLaughlin

et al. 2007, p. 217). This could be due to a high impulsivity and apathetic, and not put forth a

higher effort in their program. Additionally students who were deemed more extraverted were

found to have lower scores (McLaughlin et al. 2007, p. 218). This could be due to the highest

risk of being distracted. The strength is that it does confirm previous research that self-

efficacy is a significant factor in success. On the other hand, limitations the study presented

was an unclear picture of why a student dropped out, they only studied one program, and the

study included self reports of the students. The results suggest the psychological profiling

may be important in contributing in pre admission profiles to prevent attrition in nursing

programs. The article recommends that further research is needed to build up a knowledge

base and establish an evidence-base to inform policy in understanding attrition issues.

Overall, I rate this study a 7/10 because it provides us with a background of

knowledge regarding the personality factor we are studying, as well as directly relates to our

topic. Additionally, utilizing 350 students over 3 years is a good length and sample size.

However, I did not give it a perfect score because the study was done in 2007, it was a self-

reported study of one program, and the conclusions and data are suggestive and not concrete.

Theoretical Framework

Most studies have an underlying mechanism that creates a foundation for the research

or runs throughout the study in the background. This project is built upon Maslow's

Motivation and Heider's Attribution theories as a basis of research. Regarding motivational

theory, human behavior is influenced by external and internal factors concurrently. Generally

speaking, students are affected by their ability to make choices and express free will. Factors

that determine success can be inside one's mind as well as environmental. Heider's theory on

the other hand, attempts to understand why something happens so that future events can be

predicted and controlled in some way (Attribution theory, 2013). This is exactly what we are

examining regarding the link between GPA and success.

One major tenant of Maslow's Motivational theory is the need to stay motivated to

satisfy cravings, such as motivation and other esteem needs (Maslow's Theory of Motivation,

n.d.). Therefore, our statement of the problem can be stated as: students have a choice in

determining their academic success or failure. Their choice is influenced by motivation, self-

efficacy, and personality traits. In contrast, Heider's Attribution theory stresses dispositional

or internal factors (Attribution theory, 2013). According to these factors, Attribution theory attempts to explain the behavior of other people or events (Attribution theory, 2013). This theory correlates with our study because we will be examining internal and dispositional factors of successful nursing students.

As mentioned previously, our hypothesis states: "If students are highly motivated, show an introverted personality while managing their stress and emotions, they will be successful in the nursing program." Maslow's theory suggests that motivation occurs through unsatisfied needs, and that certain basic factors need to be met before superior needs can be satisfied (Maslow's Theory of Motivation, n.d.). Satisfying needs is achieved and driven in regards to wanting to be successful and to showcase your abilities accomplishments.

Operational Definition of Concepts

The main instrument of our study is a 20 item questionnaire. In order conduct our research in a clear fashion, it is important define what concepts we are using. Construction of an operational definition consists of defining the concept and stating how we will measure it. This study will gather qualitative and quantitative concepts. Our qualitative concepts consist of: gender, semester, grade satisfaction, weekend, motivation, motive, identity, activities, habits, leisure, nursing beliefs, adaptability, leadership, and program frustrations.

1.   *Gender* – self-reported question which will separate all subjects into two categories, male and female. Likewise, semester of study represents categories that will further divide participants into 3 groups – Junior II, Senior I, and Senior II.

2.   *Grade satisfaction* – self-rated score on a 5 level scale, ranging from Disappointed to Very satisfied.

3.   *Weekend* – period of Friday evening through Sunday evening, participants will report a studying method that resembles what they will most likely do during that time.

4.   *Motivation* – reason or reasons for choosing nursing as a major, measured by multiple choice of five most common reasons.

5.   *Motive* – cause or being the reason for goals in the BSN program, measured by a multiple-choice question.

6.   *Identity* – close similarity or affinity. Identity will be measured through self-reported choices; caring, intelligent, outgoing, empathetic, and loyal.

7.   *Activities* – things that a person or group does or has done on a typical weekend night, measured through multiple choices of possible actions.

8.   *Habits* – a self-reported concept measured through multiple choices.

9.   *Leisure* – a concept of measuring time not taken up by one's usual activities – measured by four choices of typical activities defined by research team.

Our quantitative concept consists of GPA groupings, defined as GPA brackets. Once all variables the have been accounted for, we will categorize our results according to the GPA brackets. Ultimately, our goal is to connect various characteristics and qualities to their appropriate GPA brackets.

10. GPA Brackets – GPA acquired during the classes taken in the nursing program, instead of the students overall GPA.

- 2.0-2.99
- 3.0-3.5
- 3.51-4.0

In conclusion, our instrument will be our 20 item questionnaire designed to obtain reliable data and to determine what characteristics successful nursing students contain. Furthermore, we will also use this information to describe how students behave regarding adapting to change, leadership, and frustrations. This information will be measured on a 1 to 5 scale of *Never* to *All the time* and *Ineffectively* to *Effectively*.

Methods

We designed a survey questionnaire in order to gather quantitative data relating non-academic characteristics to academic success in nursing students. Each question was designed to assist in finding data that works to correlate student academic success, personality variances, motivational factors, self-efficacy characteristics, and important perceived nursing qualifications. The 20-question survey was distributed to each nursing student who meets the criteria in one of their scheduled classes at Georgia Southern University. Students were informed that the survey will remain anonymous and that by completing it they were implying informed consent that their data may be used.

Our sample size was dependent on the amount of students in the program and their attendance in class the day we passed out our survey, as a result our sample number was 115. The purposive sample was chosen because these students are in the nursing program at Georgia Southern and have at least one finalized graded semester of nursing school. The surveys were distributed by one of our approved IRB researchers specific to this research project, students completed them during their class and they were returned to the distributor immediately afterwards. Junior I's were surveyed during Nursing Research October 15, 2014 at 9:00 AM, Senior I's during Nursing Community on October 13, 2014 at 1:00 PM, and Senior II's during Advanced Med/Surg. on October 7, 2014 at 9:00 AM.

Instrument Description

To perform our study, we have constructed a survey as the means to obtain information from our participants. Our survey consists of 20 questions that utilizes multiple-choice answers, and questions that rate severity. Through this survey, we intend to gain insight into the participants' personality and learn what factors describe them the most. When analyzing participant's personalities we hope to uncover their aptitude in factors such as: caring, intelligence, outgoingness, empathy, and loyalty. In addition, we will ask participants to circle the range of their GPA that was earned within the nursing program. This will give us all of the data we need to find correlations that may lead to a discovery in what characteristics successful nursing students have.

Since this study is gathering information through use of a survey, we are counting on participants to be honest with their responses. Consequently, we are only allowing participants who are second semester or higher to participate in the survey – all of our participants will have done a research project, or are currently conducting one. With this being true, all of the participants understand how important research is and know the value of truthful answers for research collection.

Our research group composed this survey specifically for the purposes of this study. A variety of question types were incorporated in an attempt to get both situational and opinionated data. These questions were created and formed by our research team based on knowledge of psychology, the nursing program, motivations, study habits, and perceptions. Therefore, questions were designed specifically to elicit data about the information we intend to seek out. Since the questions were designed by our group for this reason, the correspondence to what we are looking for makes them exceptionally valid. In addition, the

questions were worded in such a way to not create a bias in what answer to choose. Therefore,

the survey provided as our instrument of research will supply us with all the data we need to

make proper correlations between personality characteristics in nursing students and academic

success among them.

Results

Data was analyzed using SPSS version 22 software. Descriptive statistics from our

data were analyzed with demographic and other participant characteristics. The data

comparisons were made using appropriate statistical analysis methods such as: cross tab

tables, correlation coefficient, and chi-square. Alpha was set at 0.05 for all analyses.

Correlation coefficient was calculated between five aspects including assuming leadership

role, dealing with stress, program frustration, adaptation, and grade satisfaction using

Spearman 1-tailed significance. Among independent variables, two cross tabs were analyzed

for motivation, two for personality, three for study habits, two for perceptions, and two for

self surveying attributes. Dependent variable was then the nursing program GPA. Crosstabs

were analyzed and interpreted based on their significance and chi square data.

Table 1: Cross-tab of Motivation to Pursue Nursing as Career and Program GPA

		Nursing School GPA Range			Total
		2.0-2.99	3.0-3.5	3.51-4.0	
I picked a major and I am moving forward with it	Count	0	1	1	2
	%	0.0%	2.2%	1.6%	1.7%
I am a compassionate person, and I wanted to do something where I can care for others.	Count	3	21	26	50
	%	50.0%	45.7%	41.3%	43.5%
It fits my academic and personal strengths and I enjoy the active work environment	Count	1	10	16	27
	%	16.7%	21.7%	25.4%	23.5%
I had a past experience with a nurse(s)	Count	0	5	16	21

that inspired me to pursue nursing	%	0.0%	10.9%	25.4%	18.3%
It's a great field, I am guaranteed a job,	Count	2	9	4	15
and the pay is great.	%	33.3%	19.6%	6.3%	13.0%
Total	Count	6	46	63	115
	%	100.0%	100.0%	100.0%	100.0%

Table 2: Cross-tab between In Program Motivation and Program GPA

		Nursing Program GPA			Total
		2.0-2.99	3.0-3.5	3.51-4.0	
I made it to nursing school, now I just need to make my 75 and move on to the next class	Count	3	5	5	13
	%	50.0%	11.4%	7.9%	11.5%
I want to do well so I can work at a top hospital	Count	0	8	6	14
	%	0.0%	18.2%	9.5%	12.4%
I want an advanced degree in nursing and I need to do well to be admitted to a masters/doctorate program	Count	2	13	21	36
	%	33.3%	29.5%	33.3%	31.9%
I've always done well academically, and that is not going to stop while I am in the nursing program	Count	1	10	16	27
	%	16.7%	22.7%	25.4%	23.9%
Myself and others have high expectations of me, and I work to do well so I don't let them or myself down	Count	0	8	15	23
	%	0.0%	18.2%	23.8%	20.4%

Total	Count	6	44	63	113
	%	100.0%	100.0%	100.0%	100.0%

Motivation was our first factor surveyed Table 1 shows percentage of student results for why they perused nursing, and Table 2 shows what motivations students have to do well while in the program. Pearson Chi-square value for Table 1 was 10.406a with P-Value 0.238 Table 2 chi-squared was 12.809 and P-value 0.119.

Two tables were analyzed for study habits. However, Table 3 was also included in looking at personality. Table 3 relates to how many people the student studies with and their GPA, thus relating to both factors. Table 4 compares how students study on the weekends and their GPA. Table 5 chi-squared at 3.127 with P-value at 0.793, Table 6 chi-squared at 5.914a

Table 3: Cross-tab Between Typically How Student Studies and Their Nursing Program GPA

		Nursing Program GPA			
		2.0-2.99	3.0-3.5	3.51-4.0	Total
By myself	Count	5	35	41	81
	%	83.3%	76.1%	65.1%	70.4%
With a large group (4+)	Count	0	0	1	1
	%	0.0%	0.0%	1.6%	0.9%
With a small group (2-3)	Count	1	11	20	32
	%	16.7%	23.9%	31.7%	27.8%
Did not answer correctly	Count	0	0	1	1
	%	0.0%	0.0%	1.6%	0.9%
Total	Count	6	46	63	115
	%	100.0%	100.0%	100.0%	100.0%

with P-value at 0.206, and Table 7 chi-squared at 13.496 with P-value of 0.096.

		Nursing Program GPA	Total

		2.0-2.99	3.0-3.5	3.51-4.0	
Only if I have a test on Monday	Count	1	10	15	26
	%	16.7%	21.7%	23.8%	22.6%
Often, I use the weekends to catch up on the material	Count	0	25	30	55
	%	0.0%	54.3%	47.6%	47.8%
Never, the weekends are a time for me to relax	Count	1	0	3	4
	%	16.7%	0.0%	4.8%	3.5%
A little, but I get most of it done during the week	Count	4	11	14	29
	%	66.7%	23.9%	22.2%	25.2%
Did not answer choices given	Count	0	0	1	1
	%	0.0%	0.0%	1.6%	0.9%
Total	Count	6	46	63	115
	%	100.0%	100.0%	100.0%	100.0%

Perceptions of Nursing has to do with aspects of the profession in which student perceive as the most important when caring for patients. Table 5 shows a cross-tab of what students believe is the most important thing for a professional nurse to do properly and their program GPA. Table 6 shows a cross between what students believe is the most important characteristic of a nurse and their program GPA. Table 5 has a chi-squared of 10.599a and P-value at 0.225. Table 6 chi-squared is 4.203 and P-value at 0.649.

Table 5: Cross-tab Between Perception of Most Important Task for a Professional Nurse and The Student's Program GPA

		Nursing Program GPA			Total
		2.0-2.99	3.0-3.5	3.51-4.0	
Explaining a procedure to a patient's understanding	Count	1	2	6	9
	%	16.7%	4.3%	9.8%	8.0%
Making the patient feel	Count	3	20	22	45

comfortable	%	50.0%	43.5%	36.1%	39.8%
Giving medications	Count	2	24	31	57
and tests appropriately	%	33.3%	52.2%	50.8%	50.4%
Proper education about	Count	0	0	2	2
discharge	%	0.0%	0.0%	3.3%	1.8%
Total	Count	6	46	61	113
	%	100.0%	100.0%	100.0%	100.0%

Table 6: Cross-tab Between Student's Perception of the Most Important Characteristic of a Professional Nurse and their Nursing Program GPA

		Nursing Program GPA			Total
		2.0-2.99	3.0-3.5	3.51-4.0	
Intellect in practice	Count	2	6	12	20
	%	33.3%	13.0%	19.0%	17.4%
Compassion in patient care	Count	3	33	29	65
	%	50.0%	71.7%	46.0%	56.5%
Humble with disturbances and mistakes	Count	0	1	8	9
	%	0.0%	2.2%	12.7%	7.8%
Driven with passion	Count	0	0	1	1
	%	0.0%	0.0%	1.6%	0.9%
Chose none of choices	Count	1	6	13	20
	%	16.7%	13.0%	20.6%	17.4%
Total	Count	6	46	63	115
	%	100.0%	100.0%	100.0%	100.0%

Table 7: Correlation Table Between Self-reporting Student Aspects of Adaptation, Stress Coping, and Leadership role Among Nursing Program Students

		When presented with change, I am able to adapt...	On a day where I am overwhelmed, I am able to deal with stress...	In a given situation, I assume a leadership role...
When presented with change, I am able to adapt...	Correlation Coefficient		.449**	.319**
	Sig. (1-tailed)		.000	.000
	N		116	116
On a day where I am overwhelmed, I am able to deal with stress...	Correlation Coefficient	.449**		.375**
	Sig. (1-tailed)	.000		.000
	N	116		116
In a given situation, I assume a leadership role...	Correlation Coefficient	.319**	.375**	
	Sig. (1-tailed)	.000	.000	
	N	116	116	

**Correlation is significant at the 0.01 level (1-tailed).

Finally, Table 7 shows Correlations between three of self-report student scales. This includes change adaptation, stress coping, and assuming leadership role. Significant positive correlations are apparent with each student characteristic. Data not shown in tables was deemed insignificant and not worthy of result display.

Discussion

Our study had many conclusions congruent with the findings found in our review of literature, but a portion of our research explored areas that the other studies did not. Self-efficacy was a factor studied in both Peterson (2009) and Mclaughlin, Moutray, and Muldoon (2008) research studies. Although our research did not report self-efficacy scales, it did look at attributes related to self-efficacy, shown in Table 7, such as leadership, stress coping, and adaptation to change. These three factors each had a strong positive correlation with each other. However, similar to the findings of Peterson (2009), the data failed to show a significant correlation or relation to academic success (Peterson, 2009, p. 413).

Our study also analyzed introverted personality characteristics compared to extraverted. Mclaughlin, Moutray, & Muldoon (2008) found lower scores associated with extraversion (Mclaughlin et al., 2008, p. 218). In comparison, our data was inconclusive and insufficient enough to gain a thorough understanding of someone's personality. Table 3 shows the majority of >3.5 GPA study individually or in a small group. This could be considered an introverted way of studying, but there is not enough evidence to say so without a doubt. Other personality questions asked got an evenly distributed answer response, therefore were not used for analyzing. Based on previous studies, personality can be seen as an important characteristic; however our instrument lacked in validity to support this theory.

Lancia (2013) found female students achieved higher success (Lancia et al., 2013, p. 1503). In comparison, our data showed no significant evidence of either gender having a higher rate of success. However, gender was not a true focus for our study because of the overall small sample size and small amount of male students. Perhaps, other studies may be designed specifically looking at gender related to academic success in nursing.

Factors that were specific to our study compared to our previous literature reviews were study habits, perceptions, and motivation. Study habit results are shown in Tables 3 and 4. Table 3 results show that of the highest GPA category (3.51-4.0), the highest percentage of students study individually or in a small group. In Table 4, data reveals that a high percentage of students in the 2.0-2.99-category study a little (16.7%) or none (66.7%) on the weekend. This is in strong contrast to the 3.51-4.0 GPA category where 47.6% of the students say they study on the weekend often. Furthermore, Table 4's P-value is 0.096, meaning this data can be supported with greater than 90% confidence.

In addition, perceptions differed among the highest and lowest GPA categories as well. When asked, "What is the most important task for nurses?", the majority of the lowest GPA category said, "Making the patient feel comfortable." Whereas 50.8% of the highest GPA category answered, "Giving medications and tests appropriately." When asked about the most important characteristic of a nurse, compassion was the most common answer among all GPA categories. However, 20.6% of the highest GPA category and 17.4% overall did not answer. This response leads us to believe there is another important nursing characteristic that should have been included in this study.

Maslow's motivational theory was one of two theories that provided framework for our study because we believed that a student's motivation would be influenced other

categories, such as study habits. To test this, the survey contained two motivational questions. The first question asked, "Why the student chose nursing as a career?" The most common response in both the highest and lowest category was "They were a compassionate person, and wanted to do something to help others." However, 36.3% of the students answered that a past experience with a nurse inspired them, and none of these respondents had a GPA below 3.0. This raises the question if the circumstance was a specific experience with a nurse, or if these were highly motivated and diligent students that sought nursing experience before the program. The second question was, "What motivates the student to do well once in the program?" Our results show the goal oriented people have higher GPA's. Correspondingly, 33.3% of the 3.51-4.0 GPA bracket said, "They wanted to well to get into a Masters/Doctorate program." Whereas in the 2.0-2.99 GPA category 50% said, "They wanted to get their 75 and move on." This raises a pivotal question of if it is better to accept students to the nursing program who are long-term goal oriented pre-admission? For example, these students would include those who have a goal for an advanced degree, to teach or do research, or have a role in management growth after they have received their license.

Strengths and Limitations

The major strength of our study is that it incorporated current nursing students from Georgia Southern University. We were able to sample every nursing student from Junior II, Senior I, and Senior II classes. This makes our results relevant to characteristics of students specifically in the nursing program at Georgia Southern. Additional strength is that our study incorporated different characteristic classifications such as: perceptions, study habits, personality, self-attributes, and motivation. This allowed for a broader spectrum of things to study, rather than just one subject.

On the other hand, our study had the burden of many limitations. Although we were able to look at a broader spectrum of characteristic classifications, this made each section short and only a few questions for each one. For example, many personality questionnaires contain more than fifty questions, but we only had a couple. This makes our data interesting for further research, but non-concrete to make conclusions from. Another major weakness is the absence of students that drop or fail out. This data would be crucial to compare what characteristics they possess as compared to higher achieving students and those who remain passing. Furthermore, our data includes only the students in good academic standing so their GPAs are not as varied. As a result, GPA classification percentages are often only based off a small number of students. Additionally, our overall sample size was only 115 students, and not all students were at the same academic level. Our surveys were self-reported, leaving the possibility of lying about sensitive subjects such as GPA. Overall there were many limitations, but these limitations were mainly due to the strict time frame of our research planning and implementation, and the resources available for measurement, such as relying on self-reports for comparison.

Implications of Findings

Our results are not concrete, but can provide framework for more advanced studies. We currently believe that personality and perceptions carry implications to students' success, but we were unable to establish any major correlations in this study. However this study does contain information on several aspects that we can take away from and can apply to nursing admission programs. To start, we look at motivation. Based on the percentages found, we can see that students whose goals that are extended beyond nursing school acceptance attain higher GPA's. This knowledge can be particularly helpful to admission committees.

Obviously, as an admission committee you want to look at test scores, overall GPAs, and perhaps specifics such as math and science GPA. However, based on our research, means such as an essay or interview, and establishing goals students have can provide additional framework for accepting the best-suited students. In turn, this could reduce the program attrition rates and integrate the nursing field with the demand of quality providers.

In another aspect, resumes can also allow students to show any leadership opportunities. Our research shows a high positive correlation between leadership and stress coping. Therefore, students who exemplify leadership may be more resilient to the stressors of the nursing programs. For students already in the program, we can establish that professors can recommend students to utilize weekend time, as well as using individual and small group studying for greater academic success. Overall, the biggest implication this study carries is raising awareness to nursing programs and further researchers to follow our ideas and recommendations in establishing what characteristics of potential nursing students can correlate to academic success.

Recommendations

Our recommendations to further researchers are to advance and expand our study. We were unable to make any conclusive correlations for personality and perceptions. However, we believe a larger, less time constrained, and advanced study will better decipher the implications of these aspects. In addition, the implications we have made do not carry much weight because of the limitations to our study. A larger study can help make the other aspects we looked at more concrete, and provide a better application of the results.

As a result, this is our recommended study. We still want to look at the aspects of personality, attributes, motivation, study habits, and perceptions. However, more advanced

resources are needed for developing a higher abundance and more particular questions to

better distinguish and define these characteristics in students. For example, a psychology

professor, who specializes in personalities, can provide proper questions to help establish

personalities of surveyed students. This will make the survey larger in volume to make better

conclusions and carry with it more credibility.

Time and sample size was our biggest limitation. To combat this, we recommend that

once a strong credible survey is established, we survey students in their first semester in

nursing school. This should be done for a minimum of 3 to 5 years. This will establish a larger

sample size, it will survey everyone at the same level, and will get questionnaires from

students who might then drop or fail out. GPA's will not be self reported but factually looked

at through records. Results of the characteristics reported of all students will then be

compared to their GPA, once they complete the program or have dropped out. A better

standard comparison can then be made among students who do not make it, succeed, and who

exceptionally exceed, such as a nursing GPA above 3.5. This recommended framework for a

study will take our idea to something that can truly be applied to admission programs and the

nursing community.

Conclusion

Our study offers insight to further explore the aspects we have established as potential

contributors to academic success. However, our study was simple and highly limited with

both the sample size, and instruments applied. We could not establish concrete evidence about

perceptions and personality effects on nursing success. However, positive correlations were

found between leadership, stress coping, and adaptation. Therefore, we believe our data

supports Heider's Attribution Theory that a person's attributes or characteristics affect

dependent factors such as behaviors or reactions to situations. Additionally, Maslow's

motivational theory is somewhat supported by our data because a higher percentage of goal

oriented students contain higher GPAs. Overall, our results are limited and our P-value for

each question was higher than our established 5%. Therefore, we are to reject our alternative

hypothesis that each personality characteristic carries significance, and that highly motivated,

and introverted students will have higher academic success. However, we have established

some interesting findings that suggest a correlation may exist, and following our previous

stated recommendations could advance further research.

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