# The Relationship between Self-Efficacy and Academic Motivation on Student Achievement Among Baccalaureate Nursing Students

by

Nicole Bell Rogers

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This thesis is approved by the following members of the Final Oral Review Committee:

Dr. Richard Phillips, Committee Chairperson, Department of Education, Delaware State University
Dr. Patricia Carlson, Co-Chairperson, Department of Education, Delaware State University
Dr. Nirmaljit Rathee, Committee Member & Director of Graduate Education, Department of Education, Delaware State University
Dr. Agnes Richardson, Committee Member & Chair of Department of Nursing. Delaware State University
Dr. Evelyn Crump, External Committee Member, Department of Nursing, Hampton University

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## DEDICATION

First, I give honor and glory to God, my personal savior. He has ordered my steps and has been my shining light during this difficult journey by giving me strength from day to day. Thank you Lord for allowing me to successfully complete this major chapter of my life. Thank you for taking every step with me to get here.

I dedicate this work to my husband, Michael B. Rogers II and my parents, Kenneth and Nickie Bell, who have inspired me to pursue my educational and career goals. I could not have completed this dissertation without your sacrifice and support.

To my mom, Nickie, thank you for always working tirelessly to support me in my educational endeavors and dreams. You are an awesome mother, beloved educator and trailblazer in your field. To my dad, Kenneth, you have shown me how a father should lead his family with God first. You have devoted your years to caring for your family and being a resounding example of success, love and support. I love you both and I hope that one day I can be an example to my children in the way that you have always been for me. Thank you, Mom and Dad, for being such awesome parents. You have both instilled in me the importance of education and always doing my best, no matter how difficult the task.

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## ABSTRACT

The purpose of this study was to investigate the relationship between self-efficacy and academic motivation on student achievement among baccalaureate nursing students as measured by Grade Point Average (GPA). A quantitative research method was used for this study. The research used self-reported GPA from the fall of 2016. The General Self-Efficacy Questionnaire (GSE) and the Academic Motivation Survey (AMS-28) were used for this study. Statistical analysis was computed from a sample of eighty-one study subjects using stepwise regression, Pearson *r* correlation, and ANOVA. The statistical data were computed using SPSS version 23.0. The correlation between self-efficacy and GPA was statistically significant. Four of the six correlations related to academic motivation were found to be statistically significant with the largest of the correlations being between GPA and extrinsic motivation identified and GPA with intrinsic motivation to know being the second highest. Pearson correlations between GPA with the four demographic variables (age, gender, race, and student classification) were discussed. The correlations for age, gender and race were not significant. However, there was a significant positive correlation between GPA with student classification rank, specifically seniors. The final 2-variable ANOVA model (N=81) was significant and accounted for 24.6% of the variance in the student's GPA. Implications and research for leaders in nursing education and recommendations for future research studies were also discussed.

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CHAPTER I

# INTRODUCTION

*"Nursing faculty must take the lead in educating a well prepared workforce with requisite skills and knowledge to function in an ever-changing healthcare environment" (Brown, 2012, p. 49).*

Nursing practice in the 21st century faces a number of challenges including a growing number of comorbid patients who are sicker and in need of care amidst growing healthcare costs. Therefore, the need to stay current with vast medical changes is of an even more urgent nature. These changes are even more complex in the face of new challenges of an existing shortage of nurses, an aging nurse workforce population and the possibility of a worsening shortage on the horizon. Additionally, according to Brown (2012), changes to the development and methods of overall healthcare delivery are being implemented to meet the increases in healthcare costs and the urgent need to attempt to address a range of other healthcare challenges. The Institute of Medicine of National Academes (2010) reports that there is a current need for change of the status quo, transforming current nursing practice, preparing nurses to improve nursing care and giving them the tools they need to be leaders in their field (Brown, 2012). Nursing education must continue to increase its educational standards for academic nursing practices and other transformations in healthcare in an effort to continue to produce quality nurses. According to the American Association of Colleges of Nursing (AACN, 2011) a recent analysis indicates that the United States shortage of registered nurses will increase to 260,000 by the year 2025. The nursing shortage is expected to continue to intensify if significant changes in nursing education, practice, and policy are not implemented. The Bureau of Labor Statistics (2013) and Sephel

(2011) predicts that the U.S. registered nursing shortage, by the year 2025, will lie somewhere between 500,000 and 1,000,000 nurses or 19%. It is presumed that this shortage is due to a number of factors including retirement, graduation rates, and retention (Bureau of Labor Statistics, 2013).

Many qualified applicants are being denied admission. This is due to an unprecedented shortage of qualified nurse faculty (AACN, 2011). One survey conducted in 2011 by the American Association of Colleges of Nursing (AACN) indicates that over 32,000 qualified applicants were not accepted to baccalaureate, masters, and doctoral programs in nursing due to faculty shortages. Seventy-one percent of surveyed schools cited an insufficient number of faculty members as the main reason they were unable to accept qualified applicants along with the current vacancy of greater than eight percent for the current full-time nursing faculty (AACN, 2011). In order to alleviate the shortage of nurses, nursing schools are tasked with increasing the number of prepared and qualified nurses (Beauvais, Stewart, DeNisco and Beauvais, 2014). According to the National Advisory Council on Nurse Education and Practice (NACNEP, 2010), it has become increasingly more difficult to provide student nurses with the necessary educational experiences, skills and tools aligned with the requirements of various healthcare settings. There is a substantial need to focus on case management, health promotion and disease prevention to improve traditional nursing and overall wellness services (NACNEP, 2010). This is due to an increasingly unhealthy population. It is critical for nursing programs to produce prudent and career ready nurses at an even faster rate. In an effort to stay ahead, the "nursing profession must keep pace with changes in healthcare to ensure continued delivery of high quality, safe, and effective patient care" and acquiring the appropriate training, and skills

necessary to do so (NACNEP, 2010, p.2). The goal of nurse educators is to "develop educational approaches and curricula required for nurses to fulfill their career roles" and provide the nursing students with appropriate resources to prepare them for their field. These tasks are vital to generate prudent and well-prepared nurses of the future (NACNEP, 2010, p.2).

The lack of appropriate numbers of qualified faculty, the worsening nursing shortage of graduate nurses, faculty and healthcare changes are very pressing issues in nursing and education. An even bigger issue is that students lack non-cognitive factors like self-efficacy and academic motivation, which affect levels of student achievement (Yusuf, 2011). It is important that academic leaders and nursing faculty focus on the way nursing education is provided to begin to counteract the nursing shortage through programming and instruction. If students possess these characteristics, they can be more successful in their learning and performance. Students can be equipped with the tools they need within themselves to improve their achievement as learners. The lack of these characteristics can have huge impacts on learning and achievement (Khalaila, 2015; Yusuf, 2001).

**1.1 Background of the Problem**

Khalaila (2015) and Yusuf (2011) both support that self-efficacy and academic motivation serve as a core cause of human action and makes individuals believe in their own abilities to enhance their success and academic achievement. Instruction alone cannot be the sole proponent in the success of a student (Yusuf, 2011). Many times, inherent and internal beliefs and commitment to academic goals and achievement is a significant predictor in academic success. There are many variables including cognitive and non-cognitive factors like self-efficacy and academic motivation that can have a bearing on influences related to achievement

and performance (Zhang, Z., Zhang, C., Zhang, X., Liu, X., and Zhang, H., 2015; Ferla, Valcke, and Schuyten, 2010; Bandura, 1977). These characteristics can also assist in finding a correlation related to the enhancement of student achievement and academic success (Pugachov, Maxwell, Yomans, Wahnschaff, 2015). Yusuf (2011) indicates, student self-efficacy can influence and modify human behavior and improve academic achievement, which adds to classroom instruction and professional growth and development. Creating positive influences that will increase student achievement and success will hopefully assist in graduating successful well-prepared nurses to enter the workforce as educational institutions work to increase graduation at a faster more efficacious rate (Khalaila, 2015).

While nursing is a profession of skill and application, self-efficacy and academic motivation shed light on the fact that, even when a student possesses these skills, they may not be motivated enough to apply them without additional support and the necessary tools to do so (Ferla, Valcke and Schuyten, 2010). To some extent, students must possess traits or qualities, whether learned or innate, that provides them with some perspective on how to use their own knowledge to complete tasks effectively. They must be capable of developing their respective skills and educational abilities to be academically and professionally successful (AACN, 2011). Providing assistance through teaching as well as other educational opportunities will assist students with self-learning. On the other hand, when faced with learning these skills on their own, students may need additional instruction (Bandura and Schunk, 1989). Conceptually, academic motivators have become important models in the academic context, in terms of choices of activities for student engagement and performance (Akoto, 2014). The purpose of this research is to explore the relationship between self-efficacy and academic motivation as factors

that can increase academic achievement, as measured by Grade Point Average (GPA), among baccalaureate nursing students.

According to Yusuf (2011) "causal effects of self-efficacy and motivation on academic achievement is among one of the important issues that has been raised in educational research" (p. 2623). In an effort to continue to produce improved, more qualified nurses, efforts to determine growth and increase achievement are essential. In doing this, other non-cognitive factors (motivation and self-efficacy) may be a beneficial focus for higher education as influences that may modify behaviors and improve student success outside of the classroom setting.

Research to date has not shed much light on specific reasons behind why there is a shortage of nurses. Current research does support that the core of attaining an adequate supply of nurses to meet the current demand is in part related to the ability to prepare students in becoming nurses by enabling them to practice to the fullest extent of their education (Brown, 2012). By better preparing nurses to practice to the fullest extent of their education, they will be prepared to practice in a more efficient manner without compromising quality of care or ultimately affecting patient outcomes (Brown, 2012; Gerolamo and Roemer, 2011). Another issue of concern is the retention of nursing staff and students. Retention is also a global challenge for the nursing profession (Pugachov et al., 2015). Nursing programs are struggling to meet demands to generate nurses. According to AACN (2012), the lack of nursing faculty, which is currently at a growing rate of eight percent for full-time faculty members, has caused schools to decrease the number of students they accept per semester into their nursing programs. The lack of qualified educators has also decreased the number of available instructors to meet current demands and has placed

financial strains and other organizational limitations on the quality of students enrolled to maximize available resources. There is a gap in the literature that indicates the importance of self-efficacy and academic motivation specifically among nursing students. Many nursing programs currently aim to increase student achievement, meet the demands to produce educated nurses, and strive for success in a competitive market. There has been little research conducted in the United States on the relevance of self-efficacy and motivation as factors that can be utilized among nursing students to improve student achievement. According to Yusuf (2011), there is a lack of educational research that analyzes self-efficacy, motivation, and student achievement as an integrated model. This study will add to the current body of literature by exploring the relationship between levels of self-efficacy and academic motivation, as measured by college GPA, to improve academic success especially among baccalaureate nursing students.

**1.2 Statement of the Problem**

Nursing programs are currently facing a major challenge regarding the national nursing shortage (Sephel, 2011). The current increases in enrollment are making it difficult for nursing schools to keep up with the increase in demands. There are not enough nursing faculty to educate nurses to prepare them professionally for the nursing workforce. Some institutions have had to decrease the number of students within their nursing program based on the number of faculty able to lecture and provide clinical instruction. Many schools have had to rely on simulation, accelerated programs and other methods that provided faster avenues of instruction to accommodate the high volume of students (Gerolamo & Roemer, 2011). In addition to increased cost and decreases in the number of credentialed faculty, schools are facing difficulty in meeting the demands for well-prepared, graduate nurses in the 21st century (Gerolamo & Roemer, 2011).

It is crucial to make sure that educators and higher educational leaders have the tools to ensure students have the support and gain the necessary skills to succeed. The need for opportunities to increase self-efficacy and academic motivational levels is imperative to produce nurses that are well rounded. Nursing students need a solid educational foundation so they can succeed both in and out of the educational setting to keep our nation healthy and save lives (Gerolamo & Roemer, 2011).

The nursing field will need to challenge current standards and trends, as it finds itself with an aging workforce, high turnover and the rise of various job opportunities. According to the U.S. Department of Health and Human Services (2014), 16 southern and mid-western states within the U.S. are projected to be the most affected by the nursing shortage by the year 2025. This contributes to the fragile and limited supply of nursing educators and will also negatively impact hospitals, nursing homes, ambulatory care, facilities and schools. There are many factors that can influence a student's well-being, academic success and performance. There is a gap in existing research that sheds light on constructs, such as academic motivation and self-efficacy, with the goal to provide more insight to improve student achievement (Munir and Nielsen, 2009).

### 1.3 Importance of the Study

The purpose of this study is to investigate the relationship between self-efficacy and academic motivation on student achievement, as measured by GPA, among baccalaureate nursing students.

## 1.4 Definition of Terms

*Self-Efficacy*

*Conceptual definition.* Self-efficacy is defined as a persons' ability to believe that they can effectively deal with or accomplish a task with some level of skill and ability in dealing with everyday life problems that will result in an expected outcome. Self-efficacy is the belief that one can effectively carry out a behavior when required in an effort to produce a desired outcome (Miyoshi, 2012; Bandura, 1977).

*Operational definition.* Self-efficacy will be measured using the cumulative score of an instrument by Schwarzer and Jerusalem known as The General Self-Efficacy Scale (1995). Permission for use of the scale was granted (Appendix A). This scale is a 10-item scale with summative scores that range from 10-40 (Schwarzer and Jerusalem, 1995). The expected completion time of the scale is approximately four minutes.

*Academic Motivation*

*Conceptual definition.* Academic motivation is a fundamental aspect of learning where an individual is moved to do something by having excitement, interest and enthusiasm towards learning (Nilsen, 2009; Brewer and Burgess, 2005; Ryan and Deci, 2002).

*Operational definition.* Academic Motivation will be measured by the Academic Motivation Survey (AMS-28) created by Vallerand et al. (1992, 1993). Permission for use was granted (Appendix B). This scale is a 28-item scale. The expected completion time of the scale is approximately 15-20 minutes.

*Student Achievement*

*Conceptual definition.* A collection of measures and data that determines the level of student educational progress, performance and evaluates the effectiveness of curricular programming and academic success. This can include items such as: Grade Point Average (GPA), formative and summative assessment data, standardized testing, coursework, etc. (Soh, 2011).

*Operational definition.* Student achievement will be measured using self-reported GPA levels obtained from each participant.

*Nursing Student*

*Conceptual definition.* A student enrolled in an ACEN (Accreditation Commission for Education in Nursing) accredited nursing program.

*Operational definition.* A nursing student enrolled full-time in a nursing program at a college or university in the Mid-Atlantic region of the United States (ACEN, 2015).

**1.5 Theoretical Framework**

The theoretical framework that supports the leadership implications of this study is Social Learning Theory. Bandura's Social Learning Theory (1977) supports the idea that people learn from one another via concepts of observing the behaviors of others through: instruction, modeling, and imitation from previous experience. Many behaviors are socially motivated and are part of learned behaviors rather than an innate trait. Factors that affect human behavior that are also part of the foundation of this theory include: behavioral, environmental, and personal intrinsic factors (Bandura, 1977). These behaviors can be related to personal actions and beliefs that influence the bio-psycho-social environment related to individual well-being that are shaped

by a person's surroundings, individual choices and external constraints. An individual's behavior is limited to performances and values closest to him or her and those with whom they most frequently associate. This is also known as self-efficacy. The term self-efficacy, coined by Alfred Bandura, suggests that one has the internal capability to handle prospective problems or situations. Self-efficacy can be influenced by one's level of personal experience (MacNab and Worthley, 2012), vicarious and mastery experiences, performance goals (Bandura, 1994) and verbal persuasions in an effort to reach goal achievement (Robb, 2012; Bandura, 1995). People's perceived thoughts, judgment, and self-efficacious beliefs will be enhanced if they are better able to handle situations, which can be learned through interactions with others (Bandura, 1997). According to Bandura (1986), our interactions with others have a direct impact on how a person views themselves and their own capabilities to handle potential difficulties and situations that they encounter.

This theoretical framework helps to illustrate the connection between students and the social interaction that serves as an important component to this theory. "Self-efficacy, as a construct, has been identified as a strong predictor of student motivational learning, academic performance and career goal orientation" (Hudson, 2013, p.52). Students mature and develop through social interactions and thrive based on collectivist and teamwork learning exchanges and reasoning. Individuals interact and learn based on their own behaviors, the behavior of others, personal rewards and constraints as well as internal and personal satisfactions and consequences (Cokley and Patel, 2007). "The overwhelming majority of research has shown a positive relationship between self-efficacy and performance" (Sitzmann and Yeo, 2013, p.531). Research supports that self-efficacy has been shown to increase performance levels by 28% which is

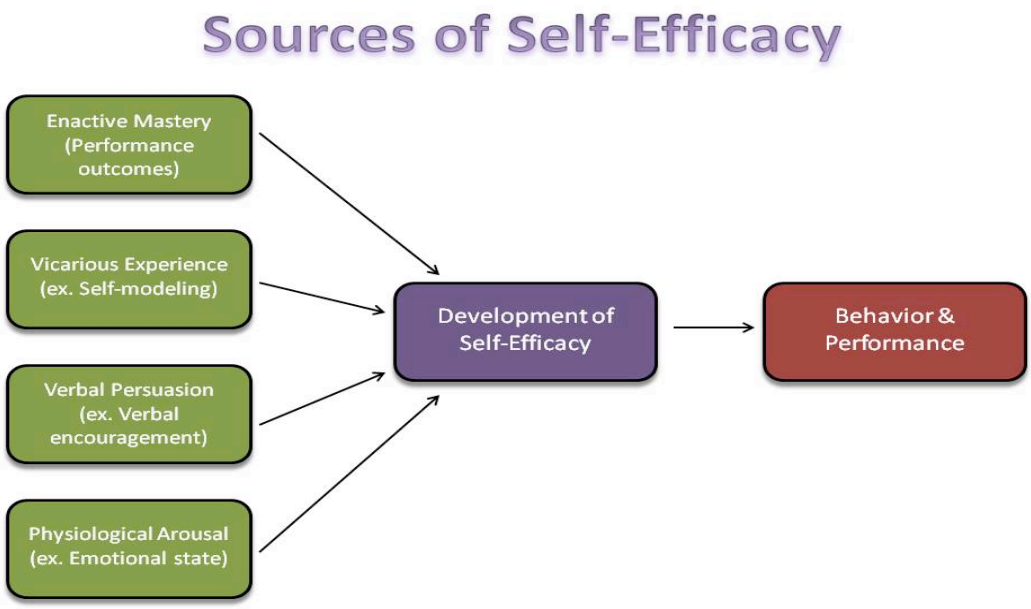
stronger when compared to other learning modalities like goal setting, feedback interventions, or behavior modifications (Sitzmann & Yeo, 2013). Bandura's Social Learning Theory also reveals that people individually reflect on personal and situational factors by evaluation of available resources to accomplish a given task (Bandura, 1994). Self-efficacy is achieved through personal achievement and mastery of various experiences and goals (Bandura, 1997). Students' beliefs about their academic abilities play a critical role in their motivation to achieve and regulate their own learning actions (Zimmerman, 2008; Bandura, 1997). According to Bandura (1997), beliefs regarding self-efficacy have shown "convergent validity in influencing such key indices of academic motivation as choice of activities, level effort, persistence and emotional reactions" (Zimmerman, 2008, p.166). Self-efficacious students have shown to participate more readily, work harder, persist longer, and have fewer adverse emotional reactions when they encounter difficult situations (Bandura, 1997). Those with high self-efficacy are "presumed to set higher goals and outperform those with low self-efficacy" (Sitzmann & Yeo, 2013, p. 532). Self-efficacy enhances performance by growing the challenge of self-set goals and escalating the levels of effort that is expended and strengthening persistence among students (Sitzmann & Yeo, 2013; Bandura, 1997). Building on a successful relationship and relational identification incorporates mastery experiences to bolster self-efficacy and increase student achievement. People develop self-efficacy through their own interactions and observations of others. Without these interactions they may lack the ability to develop this quality all together (Bandura & Schunk, 1989). According to Linnenbrink & Pintrich (2002) and Bandura (1997) motivation and self-efficacy are two of the most influential factors that affect student's academic performance and success. Sitzmann & Yeo (2013) reports that "past performance has a positive effect on self-

efficacy and can be used to judge one's capacity to succeed in the future" (p.534). Through classroom social interactions with cohorts and teamwork, self-efficacy can be enhanced. Research supports that,

> Students whose sense of efficacy was raised set higher aspirations for themselves, showed greater strategic flexibility in the search of solutions, achieved higher intellectual performance, and were more accurate in evaluating the quality of their performances than were students of equal cognitive ability who were led to believe they lack such capabilities. (Bandura, 1997, pp. 215)

*Figure 1.1*

*Bandura's Social Learning Theory (Bandura, 1977)*



## 1.6 Research Questions

The following research questions will be addressed:

**R1:** To what extent is there a relationship between self-efficacy and academic achievement (GPA) of baccalaureate nursing students?

**R2:** To what extent is there a relationship between academic motivation and academic achievement (GPA) of baccalaureate nursing students?

**R3:** Is there a correlation between self-efficacy, academic motivation and academic achievement among baccalaureate nursing students?

### Significance to Educational Leadership

As higher education is clearly faced with demands for renewal and change, specific findings in the field of educational leadership offer support of self-efficacious and academic motivational behaviors among nursing students to improve performance. New and evolving models in educational leadership practices must emerge in order to meet current student demands and be accountable to the public. Yusuf (2011) and Bandura & Schunk (1989) state that self-efficacy and academic motivation both play a critical role in the practice of professional development. According to Nilsen (2009), "pedagogic research has found that motivation and self-efficacy are two of the most influential factors that influence student achievement" (p.544). These factors are heavily affected by "how students reach academic success, confidence, well-being, motivation and enthusiasm and how theory and practice are tied together through instruction" (Nielsen, 2009, p.544). The aforementioned study focused on academic motivation in terms of self-efficacy and individual decision-making capabilities.

Self-efficacy and academic motivation indicate higher levels of achievement based on individual actions (Yusuf, 2011). Bandura & Schunk (1989) further indicate the necessity for research on topics such as self-efficacy that can be evaluated in the classroom setting while involving educators. The use of academic content assists students in learning techniques that "can help to extend the generality of self-efficacy in a theoretical context by testing predictions as they relate to classroom motivation" and assist with classroom practices in various professions (p. 228). There is a gap within the research that illustrates the relationship between self-efficacy, academic motivation, nursing education, nursing practice and nursing employment (Kennedy, Murphy, Misener and Alder, 2015; Townsend and Scalan, 2011). Educational leaders and administrators will benefit from further research to help faculty understand students' academic motivators and needs, which have been influenced by the national discussion on student achievement and comparisons of globalized educational standards and practices (Bandura & Schunk, 1989).

Educational leaders can provide programs and educational opportunities for students to enhance their levels of self-efficacy and academic motivation to increase their levels of student achievement (Kennedy et al., 2015). Educational leaders can also have an influence on higher education by increasing self-efficacy and academic motivation to increase retention and persistence among students (Nielsen, 2009). Implementation factors should be considered by educational leaders in order to enhance these factors for all students and determine a deeper understanding of the mechanisms behind self-efficacy, motivation and academic achievement among nursing students.

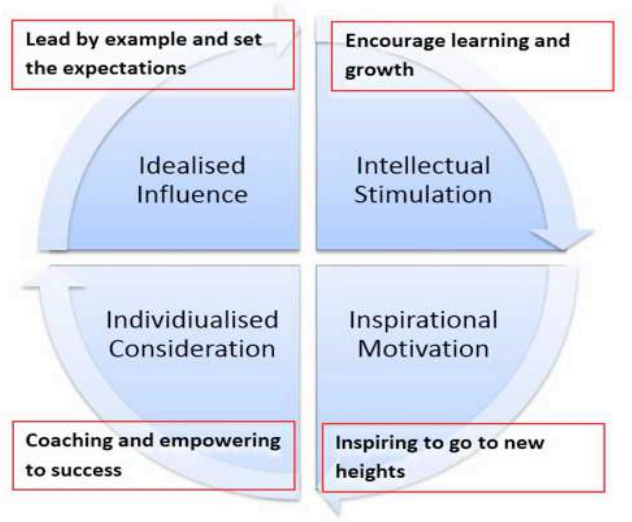
## 1.7 Educational Leadership Theory

Bandura's Social Learning Theory (1971) was chosen for this study to enable researchers to understand the relevance of this research. Educators and policy makers, in the area of higher education, can utilize this research to evaluate theoretical frameworks that can be useful in increasing student achievement. Nursing as a profession requires people to have a complex skill set and that also involves uncertainty and change (Kennedy et al., 2015). James Burns introduced transformational leadership as a concept in 1978 (Bass, 2008). Transformational leadership encourages leaders to inspire and motivate others by appealing to their moral and intellectual feelings (Kezar and Eckel, 2014). Leaders must have confidence in their own abilities. According to Bass (2008), this is accomplished by increasing the followers' levels of maturity, ideals and concerns for the well-being of others, the institution and society. Transformational nursing leaders are perseverant in their yearning to remain current in practice, maintain job skill, mobilize resources, and participate in life-long learning. Transformational leaders have optimistic, charismatic characteristics and a mutual respect amongst their followers with the use of moral leadership (Bass, 2008). Transformational leadership theory is a powerful contextual resource that influences the components of self-efficacy, motivation and performance (Salanova, Lorente, Chambel, and Martínez, 2011; Eyong, 2016). There is also evidence of general well-being, motivation, health outcomes and the influential role that transformational leadership represents among leaders (Munir and Nielsen, 2009). The premise of this theory is to promote interpersonal relationships, which emphasizes the natural and sensitive nature of people. A transformational leader is a visionary leader, who influences values-oriented, and change-oriented leadership. A transformational leader motivates others to flourish beyond their own

immediate egotisms to achieve organizational goals and success (Deluga, 2008). These qualities are what make transformational leadership effective for universities and other organizations of the like.

Figure 1.2

*Transformational Leadership Theory (Bass, 1995)*

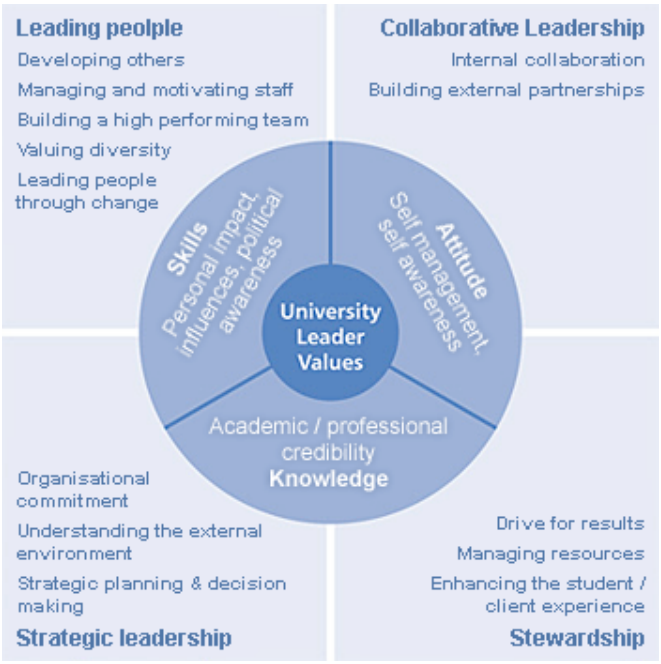



According to Bass (1985), Transformational Leadership Theory is a major goal of transformational leaders and also enhances followers' sense of self-worth and confidence by expressing confidence in their followers, setting high performance expectations, and encouraging them to come up with new and creative ideas. Because of this, we can anticipate that students who relate to transformational leaders will be highly efficacious, because such leaders not only set clearly defined expectations, but also challenge their followers to do their best (Avolio, 1999). Nursing faculty that exhibits transformational leadership, when interacting with students, has been shown to improve student performance (Eyong 2016). Similarly, according to Bass (1985), when it comes to transformational nursing leaders, they retain a shared path toward self-discovery by eliciting strengths in others, supporting others to make decisions, and enabling

others to become leaders. The components of transformational leadership, self-efficacy and leaders in higher education can all influence students through role modeling, leadership opportunities and faculty enrichment programs to increase these characteristics which will ultimately improve and enhance student achievement (Aviolio, 1999).

Figure 1. 3

*Transformational leadership practices and higher education (Avolio, 1999)*



### 1.8 Significance to Nursing Education

According to a 2014 report by the U.S Department of Health and Human Services National Advisory Council on Nurse Education and Practice (NACNEP), the importance of implementing well-designed, effective and well sustained strategies to promote effective nursing education programs and practices with innovative concepts and practice models is crucial to enhance learning opportunities and achievement among future nursing students. Change has to be implemented in order to improve current practices. Former experiences and minimally met objectives can no longer drive the models of current nursing educational practices. There is little research that currently assesses student characteristics and their ability to improve success among students (Brown, 2012).

Richardson, Gilmartin and Fulmer (2012) and Brown (2012) reports that schools of nursing need to reexamine current educational curricula and consider innovative philosophies and programming to implement change within current nursing programs. Consequently, self-efficacy and academic motivation are applicable both at the educational and professional level for many students from various backgrounds who are preparing to transition from college into the workforce. Utilizing self-efficacy to increase knowledge attainment, critical thinking and clinical performance is significant in establishing and demonstrating clinical skills and nursing competence (Robb, 2012). Building levels of perceived self-efficacy and academic motivation can result in increases in student accomplishments and achievement within various areas and activities (Robb, 2012; Nilsen, 2009). According to Hegarty (2010), positive approaches to increase these constructs include focusing on appropriate challenging tasks, reasons for choosing those specific tasks and positive feedback. These approaches are universally known as “mastery

goals" and "performance goals" (Bandura, 1986, 1971), which are also similar to self-efficacy concepts and similar ideologies. These same concepts are also valuable to promote and increase academic motivation. According to Stover et al. (2012), previous research suggests that low achievement and difficulties in matriculation are often evidence of lower motivational levels among students. Therefore, supportive interventions that strive to increase levels of these concepts may be helpful and should be targeted toward motivational and self-efficacious perspectives to increase such factors (Shellenbarger and Hoffman, 2016; Feldman, Greenberg, Jaffe-Ruiz, Kaufman and Cignarale, 2015). Improving current nursing programs and changing the way nursing education is provided by increasing self-efficacy and academic motivation will increase levels of student achievement through enrichment of supportive interventions (Feldman et al., 2015; Nardi & Gyurko, 2013; Brown, 2012; Selphel, 2011). There is a current need for further research to investigate curricula and program needs, changes and student characteristics to help understand learning and content needs (Megginson, 2008) to adequately prepare students for safe and effective nursing practice.

**1.9 Enhancing Nursing Programs**

Nurse educators can play an important role in enhancing nursing student self-efficacy and academic motivation (Kennedy et al., 2015; Duchscher, 2009). The implementation of supportive interventions, like programming and mentoring, can assist students and faculty to achieve these factors. According to Miyoshi (2012), therapeutic curricular and educational programs can improve general self-efficacy among students. Hall, Causey, Johnson and Hayes (2012) state that while the current nursing shortage receives a lot of general attention, the causative influences need to be further explored in order to identify explanations. The

recommendations to increase self-efficacy and academic achievement include: creating a mentor-mentee program for faculty and students, fast track faculty preparation programming and increasing improvements in innovative online instruction (Feldman et al., 2015; McDermid, Peters, Jackson and Daly, 2012). These suggestions may provide educational opportunities and mentoring experiences to enrich faculty and student abilities. Nilsen (2009) supports Bandura's philosophy that motivation and self-efficacy are two of the most influential factors on student's academic performance. Factors that can be exhibited by faculty and are the most influential in academic success include: fostering student success, emphasizing student well-being and confidence, increasing motivation and enthusiasm among lectures in the classrooms, and learning by doing (Nilsen, 2009).

The implementation of a mentor-mentee program would be beneficial in enhancing student career options and optimizing faculty resources that will enhance the likelihood of success between both groups (Ferrell, DeCrane, Edwards, Foli and Tennant, 2016). Mentor-Mentee programs help students' transition into the nursing profession as prudent graduate nurses and also foster a supportive environment for those faculty members currently in the workplace (McDermid et al., 2012). Educators and university leaders should consider curricula that take into consideration experiences that are both practical and meaningful to students (Altmann, 2011). The implementation of mentorship programs will enhance these characteristics along with current practices to increase self-efficacy and academic motivation among students. Alvari (2014) suggests practices that should be encouraged in mentor-mentee are programs and activities where students have "verbal validation, receive continuous and effective advice

regarding student learning and positive feedback and support. These factors can increase factors like self-efficacy" (p. 58).

Creating fast track faculty prep and enrichment programs will allow for faculty to be trained quickly and be informed on how to increase self-efficacy and academic motivation levels among students to assist in improving performance and increase student achievement. Various approaches to advising may help students provide direction and support to promote general academic success (Shellenbarger & Hoffman, 2016). Faculty may need professional development seminars or workshops on how to increase self-efficacy and academic motivation among students. The goal is to create mutually beneficial agreements to serve both faculty and staff such as professional development seminars and other opportunities to provide preceptorship (mentorship) for students that create avenues to enhance self-efficacy and academic motivation among students (Nardi and Gyuroko, 2013).

Fast track faculty-prep training will also help with the orientation process to get faculty quickly acclimated with university practices and job expectations to improve current issues regarding the aforementioned faculty shortage. Nardi & Guyrko (2013) conducted a meta-synthesis study to compare current practices and critical research solutions to alleviate the current faculty shortage. Researchers found there is currently no consensus or organized plan in place to address this problem. Strategies to attract qualified nurses to become full-time tenured faculty are important to counteract this issue. The researchers encouraged strategies that support faculty and allow them to have options that can quickly get them to a tenured position, which may encourage and attract more applicants to increase the current number of needed faculty in the classroom (Nardi & Guyrko, 2013).

Many universities have been working very hard to increase the use of technology and innovation within their program and in the classroom. The consideration of using appropriate and relevant technology is essential in nursing practice and also in education. Practical use of technology in the classroom could potentially enhance understanding and motivate students especially among Millennial and Generation X populations (Turale, 2011). It is important to consider increases in innovative and technological opportunities to stay current and also allow enrichment of self-efficacy and academic motivational qualities among students through avenues like modules, online courses and other learning modalities. Kenny, Van Neste-Kenny, Burton and Qayyum (2012) states, "in the nursing educational context, technological learning supports more situated, experiential and contextualized learning and affords the use of up to date and accurate information" (p.277). Particularly within nursing education, technology is very useful in clinical courses, simulation learning, human learning capacities and social aspects of learning (Kenny et al., 2012). Nielsen (2009) also found, by similar means, through use of technology among undergraduate students that there was evidence of value with use of information technology in undergraduate programs and classrooms. Valuable evidence can also be collected on what influences motivation and self-efficacy to improve student success, confidence and well-being. These factors, in turn, influence academic behaviors and academic success (Nielsen, 2009).

**1.10 Scope of the Study**

This study aims to explore the relationship between self-efficacy and academic motivation and the effects on student achievement among baccalaureate nursing students. The goal is to focus on avenues that can refine self-efficacy and academic motivation to increase

student achievement. The scope of this study will investigate the aforementioned non-cognitive factors among sophomore, junior and senior nursing students.

**1.11 Limitations & Delimitations**

Study limitations are potential characteristics and weaknesses that occur and are outside of the researchers control and limit the scope of the study. Researchers must explain limitations and delimitations in order to address factors that may impact study findings (Lochmiller and Lester, 2016). For this particular study, the limitations include:

1) By providing surveys to the nursing students, this researcher assumes that the answers that will be provided reflect the honest and open opinions of the study subjects. The surveys consisted of self-reported data (GPA). The researcher recognizes that the survey results and data depend on the honesty of the study subjects.

2) Students in this study may face unique challenges related to the location of their perspective university and the rigor of the nursing program.

The ability to generalize the results of this study was limited to the demographic make-up of the sample of nursing students. Most nursing programs deal with the same or similar challenges.

3) The results for the study may or not be applicable to those universities that have a more culturally diverse student population. The sample for this study was limited to nursing students enrolled in an HBCU institution within the mid-Atlantic region.

4) The baseline levels of self-efficacy, academic motivation and baseline GPAs of the students, the study cannot control for life experiences such as student work or family experiences, which, may influence an individual's self-efficacy and may not be related to the study.

5) Only one semester GPA was examined. Previous academic performance and standardized test scores, prior to university admission, were not examined. It is therefore not possible to know school entry (admission) GPA scores.

Delimitations are those characteristics that define the boundaries of a study. There were several boundaries of this study:

1) The study's scope was limited to male and female nursing students at a single university in the Mid-Atlantic region of the United States.

2) Self-efficacy was measured by the General Self-Efficacy Questionnaire (GSE).

3) Academic Motivation was measured by the Academic Motivational Survey (AMS).

5) Additionally, this study was purposeful in that only nursing students were surveyed for this particular research even though there may be evidence to support these variables are relevant in other professions or geographic regions. The purpose of this study was to shed light on those undergraduate students within the nursing profession.

**1.12 Summary**

Improving nursing student performance is a major focus in an effort to improve student achievement and confidence to provide exceptional clinical care and make appropriate clinical decisions. Clinical expertise is improved by seeking out learning opportunities and challenges. According to Bandura's Social Learning Theory, a student's sense of self-efficacy motivates them academically to increase learning opportunities and be able to overcome difficult tasks (Bandura, 1977). Personal experiences, whether they are direct or vicarious, may impact and influence self-efficacious beliefs and academic motivation regarding student performance and success. Students' self-efficacy and academic motivation are improved with measurements of

progress and overcoming challenges. Research indicates that self-efficacy and academic motivation have statistically significant impacts on improving student achievement (Yusuf 2011; Nielsen, 2009; McEwan and Goldenburg, 1999). In an effort to provide students with appropriate opportunities that will adequately prepare them for safe practice as nurses, enhanced clinical learning and application of theory are imperative to nursing practice. The challenges today's students face can be intimidating and daunting. Self-efficacy and academic motivation both play a critical role in the practice of professional development (Yusuf, 2011). According to Bandura & Schunk (1989), there is a necessity for research on self-efficacy and academic motivation to be conducted in the classroom pertaining to educators and academic content. Self-efficacy, as a theoretical concept, relates to classroom motivation and can assist with classroom practices. These benefits and practices can also be advantageous for educational leaders in the nursing profession as well as other health professions. The goal of this study is to add to the current body of research on the importance of self-efficacy and academic motivation among nursing students and the positive impact these variables have on student achievement. With the use of innovative teaching strategies, mentoring programs and fast track faculty preparation, to increase motivation and self-efficacious beliefs, nursing educators can begin to overcome the difficult task of appropriately educating current and future nursing students by honing in on internal motivators that encourage students to persist and succeed (Feldman et al., 2015; McDermid, Peters, Jackson and Daly, 2012). In doing so, these factors can assist students to be equipped in a globally changing and challenging profession.

CHAPTER II

# REVIEW OF LITERATURE

*"People who regard themselves as highly efficacious act, think, and feel differently from those who perceive themselves as inefficacious. They produce their own future, rather than simply foretell it" (Bandura, 1997, p. 230).*

Nursing programs continue to face many challenges including retention and recruitment issues on a global level. Unfortunately, available and adequately prepared nursing faculty is on the decline, as economic challenges in the United States continue to multiply at continuous rates (Rose, 2011). These economic challenges include lack of adequate insurance coverage and the overwhelming number of sicker patients. Many efforts have been made to address the variety of complex issues that nurse educators and nursing institutions currently face. According to the National League for Nursing Annual Data Review (Kaufman, 2011), motivating forces for choosing a career in nursing, the changing demographics of nursing students, and the students' motivation to learn can all provide challenges for nurse educators. Currently, nursing programs struggle to find qualified nurses that have the ability to educate the growing number of nursing students in higher educational institutions. There is a need for further scholarly research on the relevance of the relationship between self-efficacy and academic motivation and the impacts on student achievement, among baccalaureate nursing students, in order to influence, encourage and enhance factors that can highlight implications for teaching pedagogies at the higher educational level (Hegarty, 2010).

Providing students with suitable and challenging opportunities that will adequately prepare them for safe practice as novice nurses through clinical learning and application of theory is imperative to nursing practice. The challenges students face can be overwhelming with advances in healthcare and the demands for prudent nursing students to be able to make critical decisions and have suitable clinical judgment (Nardi & Gyurko, 2013). Current trends have continued to reach new heights in an ever-changing and complex healthcare system. Ensuring that students are exposed to appropriate experiences will assist students in learning applications and theoretical concepts to develop and enrich nursing practice in the 21st century. Through the use of innovative teaching strategies to increase academic motivation and self-efficacious beliefs, nursing educators can begin to overcome the difficult task of appropriately educating current and future nursing students (Khalaila, 2015; Bandura & Schunk, 1989). This literature review focuses on how self-efficacy and academic motivation can increase student achievement to prepare and promote successful learning and educational growth among today's nursing students in a globally evolving and challenging profession.

> Self-efficacy beliefs have shown convergent validity in influencing key indices of academic motivation that indicated students who are self-efficacious participate more readily, work harder, persist longer, and have fewer adverse emotional reactions when they encounter difficulties than those who doubt their own capabilities. (Zimmerman, 2008, pp.180)

The effects of self-efficacy have been found to influence student's methods of learning as well as their academic motivational processes (Zimmerman, 2008; Bandura & Schuck, 1989). Zimmerman (2008) also indicates that motivation does too play a role in academic achievement.

## 2.1 Self-Efficacy and Student Achievement

Demonstrating how self-efficacy builds student achievement is a focus of this research. Self-efficacy can be utilized in many different contexts (Bandura, 1997). Self-efficacy is defined as the ability to use one's own personal experiences and judgment to accomplish a certain level of performance to produce a desired outcome (Bandura 1977, 1986). This concept occurs when an individual evaluates his or her own ability to make decisions and perform certain tasks. A person's self-efficacious beliefs determines how people "think, motivate themselves and behave" (Fitzgerald and Schutte, 2009, p.500). According to Bandura (1986), individuals acquire information that helps them establish their self-efficacy from four sources: actual experiences, vicarious experiences, verbal persuasion and physiological indexes. Students' personal previous experiences, such as past failures and successes, can provide the most reliable basis for gauging self-efficacy. Vicarious experience also offers self-efficacy by conveying that if students put forth effort, they too can accomplish a similar task. Verbal persuasion is extending encouragement to an individual that empowers them to feel that that they are capable of accomplishing a task. Physiological indexes refer to physical indicators such as increased heart rate, breathing or elevated blood pressure that are typically interpreted as signs of fear or anxiety, and when experienced, often result in decreased self-efficacy (Bandura, 1986). Higher levels of self-efficacy are related to positive outcomes associated with an array of disciplines (Bandura, 1997). The use of Social Learning Theory as a theoretical framework for this study was selected as an appropriate theory because it outlines human behaviors and human interaction. These interactions are built on personal experiences and judgment that helps people to reach a desired outcome. The ability to reach a desired outcome encompasses motivational aspirations, previous

experiences and personal interactions, making this theory very appropriate for this particular study. This literature review focuses on self-efficacy, as it relates to nursing students, with an emphasis on self-efficacy and student achievement.

Self-efficacy is positively related to key organizational outcomes, such as self-determination, because of individual choices pertaining to goals and goal related behaviors, consequences and persistence when a person is faced with a variety of challenges and obstacles (Bandura, 1997). According to Walumba and Hartnell (2011), when people have high levels of self-efficacy, they evaluate a challenge or activity. They believe that they can successfully accomplish that task. Possessing high levels of self-efficacy allows a person to pursue work environments and organizations in which they are expected to perform at high levels or to their maximum ability (Bandura, 1997). Self-efficacy is a significant predictor that indicates how students will perform in clinical practice by providing mastery over one's environment (Alavi, 2014). This can also help students to improve other factors such as independence, confidence to feel competent in meeting challenging entry-level requirements in the clinical setting. Furthermore Bandura (1997) reveals, those with lower levels of self-efficacy have lower aspirations and weaker commitments to the goals they pursue.

Kennedy et al. (2015) studied the use of self-efficacy as a means of evaluation for baccalaureate nursing students and the effects on practice competence. The researchers used a 22-item scale to assess senior nursing students that measure self-efficacy for practice competence. With use of the self-efficacy tool, the results indicate there was an increased awareness about the nursing profession. Providing an understanding of self-efficacy and its importance in enhancing future nursing practice will aid in producing prudent nurses. The results

also indicate that further psychometric assessment and promoting self-efficacy among nursing students can assist in evaluating new curriculum interventions. The results can also be utilized to increase students' self-efficacy to comprehensively assess practice knowledge within the nursing profession while also improving performance outcomes.

In the field of general education, researchers (Usher and Pajares, 2006; Bandura, 1994) stated that it is imperative that classroom strategies aim to be most effective; students must experience achievement within the classroom amid the tasks that they anticipate to fail. This can also be applicable to many areas of study including those in nursing and similar disciplines or professions. There are limited studies that relate to self-efficacy that are currently found in nursing education, nursing practice or nursing research. McLaughlin, Moutray and Muldoon (2008) conducted a longitudinal study, using the self-efficacy scale that was administered to 384 students during the first year of their nursing program that examined the relationship between personality and self-efficacy on academic performance, attrition, and achievement in nursing programs. The results yielded that upon graduation from the program, self-efficacy was a statistically significant component in predicting levels of student achievement and performance. Other researchers like Alvari (2014) state that self-efficacy may be directly related to higher levels of attrition among nurses in the clinical setting. Those students with lower levels of self-esteem and self-efficacy may leave their profession (Alvari, 2014). When students believe in their abilities, they will use maximum efforts in the clinical setting and in various situations to ensure prudent nursing care and demonstrate patient advocacy (Alvari, 2014).

Kim, M.A., Kim, J., and Kim, E. (2014) conducted a study, which examined the effects of rational emotive behavior therapy (REBT) on stress coping strategies and self-efficacy for

senior nursing students. Senior nursing students face various types of stressful situations, such as taking the national certification licensure exam, graduating from an accredited nursing school and finding employment. These situations can generate maladaptive behaviors as well as physical and psychological symptoms. The results of this study suggest that group counseling enhances self-efficacy among senior nursing students before graduation, while the study also suggests that stress coping strategies may require a longer intervention period. This study is significant for nursing educators and policy makers as it highlights the importance of group or individual counseling for problem solving. This particular technique helped to reduce negative emotions and stress similar to that experienced by senior nursing students that could ultimately hinder educational advancement and personal development. REBT could be utilized to aid nursing students in becoming better skilled through self-efficacy and stress coping to promote professional development and proficiency.

Nurses have a difficult task of caring for others, and at many times, they themselves can struggle with their low self-esteem, low motivation, avoidance behaviors, and self-regulation regarding situations that can affect their physio-psycho-social health. These limitations can have an impact on student achievement while in school as well. It is important for leaders, instructors, department chairs, etc. to care for nurses and nursing students in the same way that they care for their patients. This is crucial in order to help maintain the health and wellness of those who care for people within our community and for nursing students who will ultimately do so in the future upon completion of their nursing program (Kim et al., 2014).

There has been little evidence that sheds light on the role that nurse educators play in developing nursing students' self-efficacy for nursing career competence. However, research

does support in nursing academe and higher education that self-efficacious practices for students and future nursing leaders is crucial to increasing student achievement. A students' self-efficacious belief in caring for a patient is related to how well they understand circumstances surrounding the client and how comfortable they were with their decisions and actions. Making effective decisions necessitates confidence in an individual's ability to use intellectual, cognitive and critical thinking skills (Bandura, 1997). How students feel about themselves can have a direct effect on how they perform academically and how well they care for their patients.

Wilson (2013) explored the relationship between perceived academic self-efficacious beliefs, academic performance, and remediation of pre-licensure baccalaureate nursing students. The study used a prospective, correlational research design and included six public baccalaureate nursing programs. Data analysis included correlational analysis of the research variables using Pearson's *r*. The findings revealed a statistically significant relationship between remediation and perceived academic self-efficacious beliefs among students. Both Wilson (2013) and Ofori & Charlton (2002) investigated self-efficacy measurements as an approach for predicting avenues for building and testing a model that relates some of the psychological processes that are essential to nursing students' academic performance. The accepted model also showed that students judged their self-efficacy to be higher and therefore expected higher grades. Ultimately, these highly optimistic expectations led to less support seeking. Results indicate that both support seeking behaviors and entry qualifications directly impacted performance. The more support sought and the higher the number of entry qualifications, the better the performance. The effects of support seeking were much greater than that of qualifications. Support seeking increased with the level of academic worry and with increasing internality of control beliefs. The

better the outcome expected the lower the amount of support sought. Stronger self-efficacious beliefs were depicted as leading to higher outcome expectations but inversely led to fewer academic worries. Older students had a lower number of entry qualifications and therefore, were more modest in their self-efficacious beliefs but had stronger internal control principles. A higher number of entry qualifications were depicted as having a direct positive effect on students' self-efficacious beliefs, which yielded fewer academic worries. Seeking academic support had the greatest direct effect on academic performance. Although the number of entry qualifications also had a direct effect on performance, this effect was not as great as that of support seeking. The current observation is that student learning behaviors, such as support-seeking, can compensate for the effects of low-entry qualifications. The participant's levels of concern cause them to seek more academic support or remediation within these two studies, which ultimately led to overall increased levels of academic achievement.

Pouravelis (2012) investigated the relationship between self-efficacious student beliefs and achievement among graduate level nursing students. This mixed methods study used a sequential explanatory design to research comparisons between academic achievement and perceived self-efficacy. The study compared adult students who returned to school after five years, and those continuing within one year after completing their undergraduate degree. The self-efficacy scale was utilized within the study, which had a Cronbach alpha result of 0.797. According to the student Grade Point Average (GPA) results, the findings indicated increases in self-efficacy were a significant predictor of academic achievement among the studied population of 101 participants. The qualitative results of this study also indicate high levels of self-efficacy as significant indicators of student achievement among returning graduate level nursing students.

Findings suggest that many levels of experiences and challenges within the nursing profession could contribute to individual levels of self-efficacy for academic achievement. Learning was found to be a significant factor that guided past experiences among participants. Interactions between classmates, faculty, and clinical experience were influenced by time away from college and personal previous experiences.

Raman (2010) conducted a study on the academic achievement of nursing students, specifically math-concepts and self-efficacy factors that increase GPAs. This study examined 104-second year associate degree nurses' academic achievement scores (GPA) utilizing purposeful sampling and the General Self-Efficacy Scale (Schwarzer & Jersalem, 1995). The focus of this study was to examine the relationships among several variables (faculty support, student general self-efficacy, academic self-concept, goal orientation and math self-concepts) as affective and normative commitment to the nursing program and first year GPA in an Associate Degree Nursing (ADN) program. The findings indicate that self-efficacy was a major motivational factor for academic achievement.

Mclaughlin, Moutray, and Muldoon (2007) also conducted a longitudinal study that assessed the role of personality and self-efficacy in the selection and retention of nursing students. With the use of a longitudinal design, a questionnaire, which included measures of personality, occupational and academic self-efficacy of 350 students was utilized. Hierarchical multiple stepwise regression was employed to predict students' academic performance. The results indicated that self-efficacy was found to be a statistically significant predictor of higher marks (Grade Point Average). Considering the practical nature of nursing, it seems likely that being able to meet the demands of the job will enhance self efficacy and the commitment to

being effective (McLaughlin et al., 2007). This study determined by increasing levels of self-efficacy, there could also be increases in personal control and performance.

More recently, Chan (2015) investigated the effects of education in 128 nursing students' self-efficacy in urinary catheterization. The study focused on positively and negatively worded examples after vicarious experiences involving medical incidents. Each student completed a survey on performance, general self-efficacy, and self-efficacy in urinary catheterization before being assigned to one of three groups: the instruction with negative examples, the instruction with positive examples and the control group. All three groups read the same reports and encompassed the same medical knowledge. Results indicated that all three groups increased their self-efficacy regarding urinary catheterization. Statistical treatment with the use of Analysis of Variance (ANOVA) indicated there was a statistically significant difference regarding the change in self-efficacy after the experiment among all the three groups. There was a statistically significant increase in the positive and negative example groups but results were also significantly higher in the control group. This study helped to enhance students' self-efficacy by bridging the gap between real-world experience and theoretical knowledge through instruction and use of positive and negative examples (Table 1). This approach is cost-effective and also an easier approach to incorporating learning into different areas of nursing.

Table 2.1

*General Self-Efficacy, Self-Efficacy and Self-Evaluation of Urinary Catheterization Performance (Chan, 2015)*

| **TABLE 2.1** General Self-Efficacy and Self-Efficacy and Self-Evaluation of Urinary Catheterization Performance | | | |
|---|---|---|---|
| | | | Mean (SD) |
| **Performance** | **Control Group** | **Instruction with positive examples group** | **Instruction with negative examples group** |
| General self-efficacy | 26.67 (3.85) | 27.93 (3.68) | 27.73 (2.96) |
| Self-evaluation of urinary catheter performance | 6.05 (1.25) | 6.08 (1.23) | 6.38 (1.41) |
| Self-efficacy to perform (urinary catheterization pre-experiment) | 5.99 (1.59) | 6.25 (1.43) | 6.06 (1.29) |
| Self-efficacy to perform (urinary catheterization post-experiment) | 6.12 (1.62) | 6.56 (1.31) | 6.73 (1.23) |
| Change in self-efficacy to perform urinary catheterization | 0.12 (0.68) | 0.32 (0.78) | 0.67 (1.00) |

A most recent investigation conducted by Lin (2016), used simulation testing and a five-point Likert self-efficacy scale to determine levels of satisfaction regarding the evaluation of learning objectives, enhancing the level of students' learning motivation, their interests, and their thinking abilities regarding simulation testing. This study used a one group pre-posttest design to evaluate acquired self-efficacious beliefs and learning outcomes from simulation-based learning, which was conducted in four stages. Participants were also asked to submit written feedback regarding education, professional knowledge and acquired skills. The average scale of

satisfaction for students was rated a 4.5 out 5 on a Likert Scale. The results indicated that individual past experiences can create high self-efficacy and promote a general set of expectations that a person carries into new situations and in turn develops a sense of self-assurance as they prepare for an upcoming task or exam. The results concluded that students had significantly higher levels of general self-efficacy. The findings support the theory that a measure of self-efficacy can be used to test the sufficiency of any model designed to predict future academic success with use of skills, training and performance indicators (such as GPA) among nursing students.

Babenko-Mould, Ferguson, Riddell, Hancock, and Athill (2014) assessed methods of empowerment among nursing students with the use of simulated and actual clinical competencies for a community and simulation based learning activity. During this study, students completed a simulation experience in which they learned expectations for administering flu vaccines. Levels of self-efficacy were assessed after each clinical experience. This study used community based learning opportunities and simulated learning to increase self-efficacious beliefs among students. Data were analyzed using descriptive statistics as frequency distribution and correlational analysis. The sampled population included 228 students that voluntarily agreed to participate. The results indicated that students felt empowered after completion of the simulated and actual community vaccination clinic. There was a significant correlation between empowerment and self-efficacy. The students also showed higher levels of self-efficacy for public health nursing competencies after actual community vaccination clinic experiences.

Kenny et al. (2012) researched using self-efficacy to assess the readiness of nursing educators for mobile learning and use of technology. The study focused on teaching implications

and practice learning in various educational contexts including nursing. Using a cross-sectional survey design, the researchers included 121 faculty member and students in two nursing university educational programs. The results determined hat both faculty and students had high levels of self-efficacy and high levels of confidence in their use of mobile technologies and were found to be willing and prepared to engage in mobile learning. These findings also indicate that BSN students, in comparison to pre-nursing students, have higher levels of self-efficacy. Participants appeared to adopt the use of technology in teaching and learning activities.

Rowbatham and Owen (2014) piloted a study that focused on clinical practicum experiences among 236 nursing students from a traditional nursing program in the Midwestern United States. These practicum experiences were applied to learned in class concepts, scholarly practice skills learned in the simulation lab. The practicum experiences assisted students in better being able to interact with families, patients and other nursing peers. The researchers examined the relationship between the perceived instructors' effectiveness and student self-efficacy, while also considering other factors such as intimidation and anxiety. The data utilized was collected from a traditional BSN nursing school within a comprehensive university masters program. The instruments used were the Nursing Clinical Teacher Effectiveness Inventory (NCTEI) and the student self-efficacy (SSE) questionnaire. Data was analyzed using Pearson's correlation and MANCOVA. The study results indicated that out of five participants showed significant ($p < 0.01$) difference between the higher and lower self-efficacy groups investigated. Those students with higher levels of self-efficacy; however, were also exposed to specific teacher behaviors of those evaluated. These students reported that faculty who suggested ways to improve, identified strengths and weaknesses, observed frequently, communicated expectations, gives positive

reinforcement and corrects without belittling had higher levels of self-efficacy. The findings from this study can help faculty develop behaviors that increase student learning and student self-efficacy among future students in nursing education.

**2.2 Academic Motivation and Student Achievement**

Students acquire a great deal of motivation through life experiences, various disciplines, and personal situations. Individuals have different degrees of motivation as well as different kinds of motivation. Nielsen (2009) reports that the level of orientation of motivation will vary based on the situation. Academic motivation will lead to actions; specifically motivation to learning that is characterized by long-term involvement and vested interests in learning. According to Vallerand et al. (1992), academic motivation is coined by researchers Ryan & Deci (2002). Vallerand et al. (1992) added several tenants to the concept, while also creating a tool to measure academic motivation among students in the educational setting. The tenants of this concept are: Intrinsic Motivation (IM), extrinsic motivation (EM), and amotivation (AM). According to Karagüven (2012), IM is the personal ambition to pursue an activity simply based on personal desire and gratification that is derived from it. IM is the internal desire that a person possesses regarding the desire to learn, explore and seek out challenges because they enjoy or find pleasure in doing so (Ryan & Deci, 2002). EM is when a person pursues an activity or action out of a sense of obligation or as "a means to an end" (Karagüven, 2012, p. 2612) based on external circumstances. The motivational influence with EM is related to external influences as opposed to internal influences. The goal of EM is to fulfill a specific need caused by an external force, events or influential stimuli needed to reach a particular outcome, that keeps a person from exercising increased levels of autonomy. EM is considered more "extrinsic in nature

because the behavior is performed to accomplish a goal rather than bringing intrinsic pleasure" (Cokley, 2015, p.127). AM is when there is no intent or drive to pursue a goal or activity due to previous failure to ascertain possibilities between an activity and their performance (Deci & Ryan, 2000, 2002). Lastly, AM reflects a lack of purpose or objective and is driven by neither intrinsic nor extrinsic influences. AM is considered to be the lowest level of autonomy on the continuum of motivation. Those individuals who are amotivated will either avoid action all together or act with no purpose or provocation (Cokley, 2015; Ryan & Deci, 2002).

People, especially students, acquire motivation through achievement of life goals and successes. The relationship between academic motivation and achievement is supported through empirical research (Kaufman, Agars and Lopez-Wagner, 2008) and is also believed to be a major predictor for higher GPAs for both male and female students (Olani, 2009). Academic motivation enhances performance and efficacy in work and academic settings and among university students (Ryan & Deci, 2002). Currently, there are very few studies in nursing that have researched the effects of the quality of academic motivation on student performance and achievement within the nursing profession. Academic motivation affects academic performance through high study efforts of students. Most of the current research in education is centered around identifying diverse types of motivation among various student populations (Hegarty, 2010). This research also supports that motivation is an important factor in student achievement and school success. Yusuf (2011) found a positive significant relationship between academic motivation (extrinsic motivation and intrinsic motivation) and student achievement. The findings also indicate that the aforementioned variables of motivation also positively influence cognitive learning strategies and higher levels of student achievement. In addition, positive outcomes are

due, in some ways to self-determined types of motivation, like intrinsic motivation (Rose, 2011). This review focuses on motivation as it relates to nursing students with an emphasis on academic motivation and student achievement. According to Timer and Clauson (2011), students will not be academically successful without qualities like academic motivation. Motivation is an indicator of academic proficiency and clinical success.

Academic motivation suggests that with the use of optimistic approaches to learning, termed "adaptive attitude", students can achieve their potential (Vallerand et al., 1992). Underperforming students' attitudes toward learning can lead to identifying learning tasks with either being "smart" or "maladaptive." The use of these positive approaches includes methodologies that lead to "mastery goals" and "performance goals." Mastery goals, as a concept, state that a student is motivated by a positive learning experience, while performance goals are when an individual is motivated by outperforming others" (Hegarty, 2010). Scholars concluded that identifying motivating factors and the source of motivation must be influential in learning outcomes and achievement. This is why determining measureable motivational levels among students is such an important task.

Radi (2013) investigated the relationship between motivation for baccalaureate nursing students and academic achievement. In a stratified random sample of 150 students enrolled in a baccalaureate nursing program students reported high cumulative GPA ratings and high levels of motivation during their nursing program. Using stratified random sampling this study was conducted with the use of a motivation questionnaire to measure levels of university student's academic motivation. The results indicated that students reported high levels of academic

performance and high levels of academic motivation, specifically intrinsic and extrinsic motivation, while attending their perspective nursing program.

Khalaila (2015) explained using a descriptive quantitative study, which showed a significant relationship between self-concept, motivation and academic achievement among undergraduate nursing students. Using convenience sampling of 170 students, descriptive statistics showed that motivation was positively correlated with academic achievement. The internal consistency reliability was examined (pre-and post test) using a self-administered questionnaire that assessed academic motivation, academic self-concept and anxiety. The Cronbach alpha of the questionnaire was 0.78, 0.80, and 0.84 respectively. The study noted the strongest correlation between motivation and student achievement, which indicates that the higher the motivation, the higher the student achievement.

Navidad (2013) explained the principle of achievement and motivation in nursing students in mathematics. Of the 145 participants, there were two groups, the control group and the experimental group. Only the experimental group received treatment. The control group received the traditional methods of teaching mathematics. Using true experimental methods and administration, as a formal procedure to determine the achievement level of the experimental and control groups, t-tests were used for paired samples to show significant differences between both groups of nursing students' mathematical scores. This means that assisting in the development of games and simulations is effective in increasing the academic achievement of students. In addition, the mean also indicated that there was a greater improvement in the students' math scores. With the use of a pre and posttest, the results showed greater improvement in the academic achievement and motivation of nursing students using the students' devised games and

simulations. Students who used game-simulations had higher academic achievement than those who did not use game simulations. There was a significant improvement in the motivation and academic achievement in mathematics of the students who devised games and simulations. Learning, with use of game simulation, motivated students and increased achievement levels.

Reed (2007) conducted a study to determine the relationship between academic motivation and academic outcomes among students in health professions. Medical students (MS) and physician assistants (PA) participated in the study. This study was a non-experimental study that explored the causal relationship between academic motivation and academic achievement in medical students at a university health center in Texas. The study contained a total of 160 study participants. Multiple regression was utilized and yielded statistically significant results. It was determined that PA students were more likely to be motivated by external factors, which contributed to end of semester GPA scores. Although these students may have favored intrinsic motivation, it may have been the vigor of external motivation that added to academic success during that particular semester. Results indicate that depending on certain courses that focused on basic scientific concepts (in this case endocrine and cell science), there were higher levels of intrinsic expectations. The students were able to apply these concepts to medical cases and clinical problem solving when accessible. Mastery learning, therefore, would be beneficial for the courses. Reed (2007) determined the effects of external motivators on these young students entering professional programs for the first time immediately following college were shown to have statistically significant findings between motivation and academic outcomes (GPA) especially between PA and MS students (specifically Osteopathic Manipulative Medicine).

Hamaideh and Hamdan-Mansour (2014) conducted a correlational descriptive cross-sectional study to investigate the psychological, cognitive, and personal variables that predict college academic achievement among students within the health science arena. The number of participants included 510 health sciences students within various health fields who completed a self-administered questionnaire. According to Hamideh and Hamdan-Mansour (2014), there are many variables that correlate with current academic achievement scores. For example, motivation was positively correlated with the academic GPA scores among health professionals studied. Psychological, cognitive and personal predictors were also correlated with higher academic achievement levels. Academic motivation was correlated considerably with academic achievement as measured by GPA. Motivation was found to be 25% of the total variance and the major predictor of academic achievement explained in this study (Hamaideh and Hamdan-Mansour, 2014).

Motivation in general is typically classified as either intrinsic, extrinsic or amotivation. Students who are intrinsically motivated view learning as opportunities to satisfy their own curiosity and their own yearning for knowledge. According to Altmann (2011) students can be motivated through personal/internal professional beliefs/attitudes or a combination of the two. Ryan & Deci (2002) suggest that many students exhibit aspirations of motivation through wanting to assist others in obtaining good grades to their parents, family members or co-workers because the person feels that it will end in a desired outcome (e.g., pay increase, satisfied family members, positive work related outcomes).

Rose (2011) explained the principle of Associate Degree Nursing (ADN) programs and the concept that high levels of motivation (specifically the self-determined components of

motivation) are significant predictors of academic achievement, academic success, and retention for nursing students. The study also concluded the locus of control (intrinsic versus extrinsic motivation) can be predicators of success in higher education. Additionally, motivation has been a positive component related to learning outcomes, and positive learning outcomes have been correlated with increased retention in higher education. The author did suggest the necessity for future studies for BSN students.

There is a relationship between learning, performance and motivation. The way that a student performs depends on his or her prior knowledge, intentions and motivation for studying (Biggs, 2011). According to Schunk, Pintrich, & Meece (2008), motivation is a process, which requires students' physical or mental activity. These activities are what lead students to be directed and geared toward attaining their goals. Research conducted by Bengtsson & Ohlsson (2010) aimed to obtain information regarding what students consider important motivational factors in attaining knowledge. Their study focused on determining motivational factors of 31 nursing and medical students. The study utilized a qualitative design, which included interviews with semi-structured questions, focus groups of study participants and content analysis. The students expressed a need to include more superficial knowledge with learning while also being able to incorporate theoretical knowledge into practice. The study determined that motivation comes from within (intrinsic motivation) through the use of different learning strategies. By providing an educational environment that resonates with students' needs, scholars may find that students are more successful academically. The participants within this study were motivated and aware of their own responsibility for their study results (Bengtsson & Ohlsson, 2010). The

nursing and medical students had similar thoughts about learning, but they had situational differences (i.e., age, backgrounds, and social situations).

Bengtsson and Ohlsson (2010) also explored how extrinsic and intrinsic motivating factors and rewards that may have an impact on medical students' ability to learn. All participants agreed that intrinsic factors are the most important as well as nursing and medical students' motivation to study. The findings exhibited that medical students were generally more satisfied with their studies than nursing students. Findings also indicated, this may depend on differences in pedagogy and teaching, but it may also depend on differences in the locus of control among participants, which can either be intrinsic or extrinsic motivational factors. Students had a high internal locus of control and believed that their efforts and activities were successful. They were also more effective in seeking knowledge concerning their learning as opposed to other external factors. Participants with an external locus of control also assumed that educators, as well as environmental and other outside factors control their success, and were, therefore, less likely to work hard for higher grades.

Kusurkar, Ten Cate, Vos, Westers, and Croiset (2013) assessed how motivation affects academic performance using a structural equation modeling analysis. Motivation strategy and efforts were captured from 383 medical students attending medical school. The Academic Motivation Scale (AMS-28) was utilized (Vallerand et al., 1992, 1993). The Cronbach alpha ranged from 0.568 to 0.745. Multiple regression and Structural Equation Modelling (SEM) was used as statistical treatment. The study was distributed through a weighted lottery selection procedure. A regression analysis was performed to determine the relationship between motivation, certain demographics (age, gender, year of curriculum) and methods of admission.

Results indicated that relative autonomous motivation is positively associated with the use of a good study strategy by the students who had higher study efforts (Kusurkar et al., 2012). Relative autonomous motivation (intrinsic motivation) had a positive association with GPA in females (Pearson correlation coefficient= 0.121) and also a positive association with study effort. For males, there was an indirect positive association in relative autonomous motivation through a positive association with good study effort. According to Kusurkar et al. (2012) results indicated that study efforts that were relative to autonomous motivation are positively linked to the use of a good study strategy among participants. Findings were positively associated with high study efforts and GPA.

Kosgeroglu, Acat, Ayranci, Ozabaci, & Erkal (2009) investigated motivational learning and socio-demographic characteristics between midwives, nurses and heath care related fields of study. The researchers used a determinative study of 2,850 students from Schools of Nursing (SoN) and Schools of Health Care (SoH). Using a motivational scale instrument, the study assessed intrinsic, extrinsic and amotivation (negative) motivations among the participants. Descriptive statistical analysis was utilized. Female students had higher levels of intrinsic and extrinsic motivation than males that were studied. Mean levels of motivation are also lower among females than males. The study hypothesized that this may be due to females being more prevalent within the nursing profession and may have also been more widespread within this study. Mean levels of intrinsic motivation were higher in SoN than in SoH. It was also found that mean levels of intrinsic motivation and extrinsic motivation in the SoH were determined to be lower than those of the departments of SoN. While mean levels of negative motivation were

found to be lower in the SoN, they were found to be higher in other healthcare related fields of study (SOH).

Altmann (2011) conducted a study on issues emerging from a meta-analysis regarding registered nurses (RN) returning to school for a Bachelor of Science degree in nursing (BSN) versus a diploma in nursing (ADN). The meta-analysis focused on U.S. issues surrounding this topic with a global perspective. According to Altmann (2011), the findings can be useful globally. The author researched 28 previous studies. There were many similarities between the studies, which included the instruments used, sampling methods, size, types and locations researched. The meta-analysis revealed personal characteristics, motivational factors for pursuit of educational advancement, and student needs for those students who returned and those who did not return. According to Altmann (2011), the literature is full with reasons regarding why RNs return to school to pursue their BSN. Along with personal characteristics, the research addressed the motivational factors concerning participation in continued education to pursue a BSN. The motivators described within the study relate to professional personal/internal benefits, and past, present, and future motivators. Motivators, according to Altmann (2011) can "either be real or perceived as an attitude, belief, or combination of both" (p. 260). Altmann (2011) and Dowswell, Hewison and Hind (1998) indicate that those individuals' studied with future orientations regarding their careers tended to be positive about change, while those with past or present orientation tended to have more negative attitudes. Carlson (1992) expressed that the reason many students did not return to school was due to a lack of confidence (Altmann, 2011). Another researcher (Waddell, 1993) found in their meta-analysis of 22 studies that

"motivational orientation explained 46% of the variation in RN participation or non-participation in continuing nursing education" (Altmann, 2011, p.260).

TABLE 2.2

*Personal Motivational Factors (Altmann, 2011)*

| ***Personal Motivational Factors*** | |
|---|---|
| **Personal motivational factor** | **Authors' who identified this concept** |
| Personal achievement or satisfaction | Bahn (2007); Cavanaugh (1990); Delaney and Piscopo (2004); Martin (1992); Reilley (2003) |
| Positive attitude regarding BSN education | Carlson (1992); Emerson (1992); Jerdan (1993); Roche (1990) |
| Improved self-esteem | Dowswell et al. (1998); Martin (1992); Root (1991) |
| Future career plans | Davey and Murrells (2002); Reilley (2003); Zuzelo (2001) |

The literature within this meta-analysis identified professional motivational factors as another reason for returning to school, which included pressure from employers and the profession, career advancement, career mobility, career options, professional enhancement, increased professional values, need for obtaining a BSN in their career, improved clinical judgment, and increased knowledge as some of the reasons provided (Table 2.2). "Registered nurses that typically fail to recognize their own acquisition of skills and knowledge were intrinsic to professional development" (Altmann, 2011, p. 260). Megginson (2008) summarized the current motivational factors of RNs to pursue advanced degrees. These reasons included being able to: "access programs at the right time in life, work with various options, achieve personal goals, acquire a credible, professional identity (after obtaining a BSN) status, receiving encouragement from other colleagues, and accessing friendly RN-BSN programs" (p.260).

The results from this study revealed a number of changes that are needed within academe to improve current programming that appeals to professional nurses which include: curriculum changes, advising, mentorship that will encourage advanced educational endeavors (Megginson, 2008), and increase access to nursing programs (Altmann, 2011). Other existing issues and barriers mentioned within the meta-analysis include a more simplified process for admission and matriculation within nursing programs (Megginson, 2008), motivators for continuing education, and wanting to be treated as a professional (Altmann, 2011). Megginson (2008) states, the purpose of the meta-analysis is to enable nursing faculty and higher educational institutions to more fully identify student needs. The meta-analysis advises that educators should enhance "student advising and support mentorships and articulation agreements between ADN or diploma programs and BSN programs" (p. 264). Additionally, institutions should market more to the younger and more seasoned nursing students. According to Altmann (2011), interest improves with age. It was also recommended that there is a need to define motivational factors and attitudes towards educational advancement on a larger scale using various methodologies (Altmann, 2011). This would help to address the identified problem regarding the nursing shortage and as "qualified applicants are being turned away from nursing schools because of faculty shortages" (Altmann, 2011). "As a result of the current job market and faculty shortage, RNs are not motivated to return to school to secure or retain employment" (p.266). Motivators for learning can be personal, professional or academic in nature. Altmann (2011), states that several motivators to return for educational advancement include: "increased self-confidence, autonomy, quality patient care, improved clinical judgment, career advancement and personal growth, which can be used as components that enhance lifelong learning (p.266). If nurses

become more engrossed in their own educational plan, some may be motivated to continue to further their education and possibly become future faculty educators (Altman, 2011).

**2.3 Student Achievement and Higher Education**

According to Soh (2011), current student academic achievement measures are based on existing standards and content. A student's learning is dependent upon many factors. The use of learning goals and instructional standards can be utilized as tools for educators providing instruction to assemble objectives, facilitate learning and improve student performance. These standards and goals are used in an effort to guide instructors to ensure that existing benchmarks are met. There are several tools used to assess academic achievement, but the literature greatly supports the use of Grade Point Average (GPA) as the instrument most widely used presently in education (Caskie, Sutton & Eckhardt, 2014; Soh, 2011; Hallfors et al., 2002). The causal effects of self-efficacy on academic achievement are among one of the more significant issues raised in educational research (Yusuf, 2011). The causal effects become more interesting when researchers try to determine if a student's levels of self-efficacy is a primary cause of academic success or whether success is largely rooted in the students' significant efforts and skills (Yusuf, 2011). When levels of self-efficacy are developed and enhanced, motivational levels do improve (McEwan and Goldenberg, 1999; Yusuf, 2011). Determining the extent of the relationship between self-efficacy and academic motivation on student achievement will add to and enrich current research on a student's potential especially among nurses to enhance academic function and promote better learning practices.

Research conducted by Wei-Chieh, Chunfu, Mei-Hsin, and Jenny (2015) examined problem-based learning utilizing technology and its impact on nursing students' academic

achievement and critical thinking abilities. This quasi-experimental study was designed to investigate the influences of unique teaching methodologies on academic achievement, success and critical thinking practices of undergraduate nursing students. The study assessed a student's willingness in facilitating self-regulation to be effective. The study pointed out that some students are great critical thinkers but lack the desire or motivation to do so. Critical thinking skills are a crucial necessity to being a nurse. This quasi-experimental study explored traditional instruction, problem-based learning (PBL), and blended problem-based learning (B-PBL). This research assessed the aforementioned variables and their relationship on students' academic achievement and critical thinking dispositions. The results were compared and the findings revealed that the use of B-PBL strategies had a positive impact on student achievement. Findings within the study revealed academic achievement and showed higher test scores related to problem-based learning for all groups. The B-PBL results indicate statistically significant increases in test scores over PBL and traditional instruction in posttest results. However, no significance was found among the groups in critical thinking dispositions for categorical variables within the results of the pretest and posttest. Findings indicate that P-PBL strategies did not have a positive impact on critical thinking dispositions.

Kukulu, Korukco, Ozdemir, Bezci, and Celic (2013) examined of the role of self-confidence development in undergraduate nursing students. The study aimed to assess the self-confidence levels of nursing students and related factors via use of a self-confidence questionnaire that that measured socio-economic characteristics. The study used a self-confidence scale and descriptive statistics to examine demographic characteristics. Statistical methods chi-squared (non-parametric) tests were used to analyze categorical data, while

continuous data was summarized in statistics including means and standard deviations. The results revealed that 78.6% of female students and 92.3% of male students had high levels of self-confidence. Of those studied, 84.5% of first year students were highly self-confident and 76% of students held high self-confidence by their fourth (senior) year. Students with high self-confidence also performed better academically and professionally within the study.

McCarey, Barr and Rattray (2007) evaluated predictors of academic performance amongst a cohort of pre-registered nursing students in part due to the difficulties in retention and selection of nursing students in today's higher educational settings. Current concerns about academic performance have led researchers to explore current predictors of the entry changing processes, which was studied within this cohort of pre-registered diploma nursing students. The goal of this study was to investigate the predictive relationship between entry qualifications (age, gender, attendance) and academic performance in this cohort (McCarey et al., 2007). The data were collected from a cohort of 154 nursing students. The university records department provided secondary data used for the study that included specified demographic data (age, gender, and non-attendance) during the pre-determined course. Non-attendance was documented. Student achievement exams and assignments were recorded as percentages. In total there were four examinations and seven assignments used within the study. All assignments and exams were selected from year one and year three. The use of statistical analysis confirmed that students with higher entry level qualifications performed consistently better than students with lower level qualifications. When assessing age, older students over the age of 26, achieved better average grades in coursework and examinations compared to their younger peers. When comparing the first and third year performance ratings, in this case, there were similarities when assessing the

same examinations and assignments. Non-attendance was shown to have a negative impact on academic performance. There was also a statistically significant correlation between high absenteeism and poor academic achievement. The findings emphasize thought-provoking issues for nurse educators related to academic student support. There was a significant correlation between academic performance, recruitment and selection of the most appropriate candidates while also focusing on absenteeism monitoring and curriculum design (McCarey et al., 2007).

Pugachow, Maxwell, Youmans, Wahnschaff (2015) conducted a study to assess attrition rates in nursing programs by analyzing non-academic factors such as standard university admissions data. The research focused on the non-academic characteristics that can improve success among students (Pugachow et al., 2015). The study sample included 115 students from Georgia Southern University who had completed, at the time of the study, at least one semester of nursing school. The study utilized a 20-item survey including self-reported GPA. The survey used an anonymous and passive content questionnaire. The researchers used Pearson's *r* and chi-square for statistical analysis. The Cronbach alpha was 0.05. The results indicated that there was a strong statistical correlation between stress, assumed leadership roles and the ability to adapt to change among the participants. The possibility to move on to obtain an advanced degree was the highest motivating factor for students with a GPA of > 3.5.

Liao, Ferdenzi and Edlin (2012) explored and compared how intrinsic motivation and self-regulated learning efficacy influences academic achievement among international and domestic students. There were 310 participants within this study. This study utilized a motivational scale that assessed self-regulated learning. Additionally, this study also utilized participant self-reported GPAs. Results indicated that for both international and domestic

students, motivational influences did have a direct effect on their student achievement. Self-regulated learning efficacy affected academic achievement for international students specifically. The study also used several path models to assess the direct and indirect relationships among the existing variables. It was also determined that for international students, motivation indirectly affected academic achievement mediating efficacy for self-regulated learning. However, it is important to note that this path model did not have the same results for domestic students.

Goff (2011) focused on stressors, academic performance and learned resourcefulness among baccalaureate nursing students. The purpose of this explanatory quantitative correlational study was to examine the mediating effects of learned academic resourcefulness on the relationships of both personal and academic stressors, as they related to academic performance in baccalaureate nursing. The statistical treatment used included descriptive statistics and Pearson's *r*. Alpha significance level for this study is 0.05. A demographic data sheet was created to obtain all demographic data. Other instruments utilized included a stressor scale and a scale that measured participant self-control. The Cronbach alpha was between 0.82 to 0.83. High stress levels indicated a positive correlation between age and academic performance. Due to the correlation, reductions in environmental stressors and stress management, there was a high level of importance to improve academic performance especially among baccalaureate nursing students. Additionally, academic and personal stressors were the most bothersome to the students surveyed. Females were found to have higher stressors that affected their performance. Students with higher levels of learned resourcefulness developed greater self-confidence, motivation, and academic persistence. These same students were also less likely to become anxious, depressed, and frustrated. High levels of personal and academic stressors were evident

and were not significant predictors of academic performance (p = .90). Age was a significant predictor of academic performance (p = < .01). Males and African-American/Black participants had higher learned resourcefulness scores than females and Caucasian participants.

Reyes (2007) explored the relationship between classroom engagement activities and the academic performance of 317 professional nursing students. Using a classroom survey that assessed classroom engagement, it was determined with the use of a correlational research study design that the responses regarding student engagement were compared to the grades earned from seven respective nursing courses. Each course represented a different level of nursing education from current nursing curricula and different semesters. The data analysis showed significant relationships between specific engagement practices and the grades earned in the course.

Livingston (2013) compared academic achievement of accelerated and baccalaureate programs among nursing students. The purpose of this study was to compare a national sample of accelerated and traditional baccalaureate prepared nursing students on measures of academic achievement using Health Education Systems (HESI), exit exam scores and first-time passage of NCLEX-RN® scores. Results were analyzed using t-tests and chi-squared statistical formulas. Livingston (2013) indicated that of the majority of the students in accelerated programs scored significantly higher than traditional students on the exit HESI exam and were, therefore, twice as likely to pass the NCLEX-RN on their first attempt.

Stover, De la Iglesia, Boubeta and Liporace (2012) reviewed the Academic Motivation Survey among 723 Latino high school and college students (393 high school and 330 college students). The study assessed cultural and linguistic differences among students of the Latino

population from a randomized sample of students from public and private institutions. The purposeful sampling consisted of schools within Buenos Aires. The statistical treatment used was Aiken Indexes and content analysis. The Aiken coefficients had an equal or higher value of 0.80, which ensured content validity for each educational group level. The study verified adequate psychometric properties using the 28-item Academic Motivation Survey (AMS-28), which alleviated concerns regarding the instruments dimensionality and the ability to use it among different cultural and linguistic groups. The study results indicated that motivation is associated with academic achievement and psychological adjustment. The factors of extrinsic motivation and intrinsic motivation scales showed high correlations among college students.

Dyes (2011) studied the effects of stimulation learning of self-efficacy and intrinsic motivation levels among junior level baccalaureate nursing students. The quantitative experimental design explored the effects of alternative teaching methods of human patient simulation (HPS), virtual clinical excursions (VCE) and intrinsic motivation among 126 culturally diverse junior level nursing students. The focus of this study was to determine if simulation activities that utilized efficient teaching processes for students from culturally diverse backgrounds had impacts on students' motivation (Dykes, 2011). The results reveal intrinsic motivation was higher in HPS and VCE. Both types of simulation were found to be motivationally effective teaching methods for all students no matter their cultural background or demographic.

**2.4 Self-Reported Grade Point Average**

Caskie, Sutton and Eckhardt states "GPA is widely considered as one of the more popular measures utilized to assess collegiate academic achievement" (2014, p. 385). GPA can ultimately

have an effect on the future of a student and their own feelings about academic endeavors and is also an indication of school performance and achievement. GPA can also influence whether students will be interviewed and hired in the private sector (Baily, Rosenthal and Yoon, 2014). GPA is described as a popular historical theoretical quantitative educational assessment utilized among primary and secondary level schools to higher educational settings (Soh, 2011). This study, aligned with current research, will use GPA as an outcome variable to assess the relationship between the dependent and the independent variables. GPA will also be used to evaluate the correlation between all three variables among this population.

Previous studies conducted by Caskie et al. (2014) and McEwan and Goldenberg (1999) assessed college self-reported GPA values. In a sample population of 194 students, the study examined whether accuracy of self-reported GPA differs based on unique levels of academic performance or levels of self-efficacy and whether the differences are affected by gender and current academic classification. The results indicated that further research on college achievement regarding GPA scores might be beneficial in the higher educational realm.

### 2.5 **Nursing and Baccalaureate Programs**

Current requirements stipulate that 80 % of the nursing workforce must hold a baccalaureate degree by 2020 (AACN, 2012). AACN and the Institute of Medicine of National Academes (2010) are implementing recommendations to move the nursing profession forward to better position nurses to change the current healthcare delivery system. The nursing profession is a very important component in this process. There is a rationale for the push to graduate more BSN prepared nurses due to decreases of morbidity and mortality within hospitals that employ large numbers of baccalaureate prepared nurses (Altmann, 2011; Aiken, Clarke, Cheung, Sloane

& Silber, 2003; and Clarke & Aiken, 2003). There is also public awareness that nurses need to be baccalaureate prepared (Altman, 2011). Many nurses have graduated from ADN programs only to return years later to obtain a BSN degree.

The population survey for this study includes second, third and fourth year nursing students. According to Baker and Griffin (2010), learning occurs as a social process that affects relationships, especially those with faculty. Learning is also a powerful tool that is critical in building scholarly student capacity, promoting degree completion and increasing retention. The rationale of the population chosen for this study of second, third and fourth year students is related to the program layout of pre-nursing students transitioning to nursing majors. These students have had at least one to two years of college completion and have established some level self-efficacy and academic motivation, which provide some benefits in matriculating through their first year within the organization studied. By sophomore (second) year students are preparing to enter the nursing program and are in the process of taking pre-requisite courses. Pre-nursing students are preparing to apply to their school of nursing, but have not formally been accepted into the nursing program. In order to become a nursing major, all prerequisite courses have to be completed along with meeting other benchmarks (fulfilling GPA requirements, successful completion of all general education/prerequisite courses, preliminary testing, and completion of the nursing application. By the junior year (third) year, nursing students have been officially accepted into the nursing program, changing their classification from pre-nursing to nursing majors. A junior level-nursing student has met all of the requirements for admission into the program. Clinical courses usually qualify those eligible students to begin the program to ultimately obtain a BSN degree. These requirements must be met in order to be admitted into the

School of Nursing (Baker and Griffin, 2010). The need for improvements to be implemented is paramount to guide faculty in identifying helpful and useful tools that can be used among second, third and fourth year students. This would be in an effort to help them to graduate and increase student success, while involved in the official nursing curriculum and nursing courses. Sophomore, junior and senior years are critical years for nursing students as they are engrained in the nursing program curriculum and clinical experience. Wells (2007) and Brown and Marshall (2008) concluded that students that were well oriented into the nursing program by their second year and that were exposed to actual nursing curricula were less likely to leave the nursing program.

**2.6 Historically Black Colleges/Universities & African American Students**

There are a limited number of studies conducted at Historically Black Colleges/Universities and among African American students that addresses self-efficacy, academic motivation and student achievement. Hudson (2013) states, "black students in the United States continue to struggle academically as they matriculate into postsecondary education, placing them at risk for missed opportunities for work and social success" (p.3). There are many social factors that contribute to academic success as discussed by a study conducted by Hudson (2013). This quantitative study assessed factors that contribute to the abilities of Black college students to ascertain their racial identity as well as other influences like demographics, academic support, self-efficacy and religious/spiritual support as elemental factors that may contribute to academic success (Hudson, 2013). The results indicated that self-efficacy was found to be a significant predictor of academic performance and success where most students within the study performed well academically. According to Hudson (2013), the "results also

suggest that high school and college counselors and educators can gain insight in to Black students by understanding influences like racial identity, and academic support" (p.96). The results support that the students within this study developed a high degree of self-efficacy due to the aforementioned supporting factors and also indicated that high achieving Black students are learning to be more resistant amidst today's academic struggles and also when faced with adversity (Hudson, 2013; Fries-Britt & Griffin, 2008; Harper, 2008). Hudson (2013) reports that although research does "provide evidence of self-efficacy as associated with academic achievement, its relationship to Black identity and success has not been sufficiently explored" (p.67). Fries-Britt and Griffin (2007) indicated that students who preformed well academically were typically faced with common stereotypes regarding Black Americans and reported a low level of self-efficacy.

Crawford (2016) found in a qualitative exploratory study that assessed motivational factors that influence African American students to pursue a college education that academic motivational factors and valuable personal characteristics among those studied influenced academic success. This study was comprised of 10 African American students enrolled in a four-year college or university. The results signified that internal and external motivational factors were very influential in the participants' decision to go to college and perform well academically. Of the participants, 90% reported at least one African American person influenced them to pursue a post secondary education. Those who reported an external motivator indicated that it was a parent, family member, teacher or friend who influenced their decision. The study identified academic and self-motivational factors as an emerging theme for academic success and

indicated those motivating factors that influenced them to pursue higher educational opportunities and achieve higher academic success.

Reid (2013) conducted a quantitative study of 190 black full-time sophomore students. The participants were all from five predominantly white institutions. The results of this multiple regression analysis study reveled that their self-efficacious beliefs, high school GPA scores and combined Scholastic Aptitude Test (SAT) scores influenced academic achievement of those black male students studied. The study also indicated that self-efficacy is a significant predictor for improving the educational outcomes and collegiate achievement among black college students (Reid, 2013).

Jaret and Reitzes (2009) conducted a study that focused on 652 college students at a "traditional urban university' (Hudson, 2012, p.68). The statistical treatment used within the study was multivariate analysis. The results of this study indicated a positive correlation between self-efficacy and academic achievement. African American students showed higher levels of self-efficacy than Caucasian or Asian students.

Ingram, Williams, Coaxum, Hilton and Harrell (2016) piloted a study of 14 African American students at selected community colleges to "call attention to the realities that are specific to African American male community college students" (p.1). The findings of this study revealed the differences of educational experiences between African American students and those experienced by their counterparts. This study employed a qualitative narrative methodology. The results indicated that when faced with specific personal challenges and obstacles, internal and external motivational factors such as: "improving life status, societal pressures, being head of their household and faculty and staff encouragement" provided them

with a sense of needing to continue their education (p.1). The participants also reported that faculty and staff were a significant source of motivation. Faculty and staff that interacted with the participants provided "expert advice, meaningful interaction and served as role models" (p.11).

Self-efficacy and academic motivation are educational factors that address relevant influential aspects. These characteristics can enhance and highlight implications for teaching pedagogies at the higher educational level (Hegarty, 2010). The investigator of this research hopes to shed light on elements that can improve the educational experience and student success of nursing students and add to the current body of empirical knowledge. This literature review focuses on how self-efficacy and academic motivation can increase student achievement in efforts to prepare and promote successful learning and educational growth among today's nursing students in a globally evolving and challenging profession. This literature review provides supports to the investigating research discussed in this study. The purpose of this study is to investigate the relationship between self-efficacy, academic motivation and student achievement, as measured by GPA, among baccalaureate nursing students.

**2.7 Faculty Leadership & Social Learning Theory**

Bandura (1997) supports the connection between Social Learning Theory and academic achievement. He indicates that social learning and self-efficacy can be influenced by a person's educational experiences, upbringing, external influences, and social interactions. Social Learning Theory also supports the connection between role modeling and observation. In this case, faculty can possess role modeling characteristics and attributes that can be influential to those students they actively engage. As learners observe, they can be influenced by those that they view as

influential (Bandura, 1997). Additionally, academic motivating factors can also impact how self-efficacious a person is to achieve, set goals and influence their own success. According to Eyong (2016), nursing faculty can be role models for students and influence their academic achievement. With nursing faculty as role models, nursing students are more likely to influence theory into common practices within the classroom and clinical practice or craft knowledge (Perry, 2009). There is a connection between the theory chosen for this research, human behaviors, academic motivation and self-efficacy, which are all crucial components that can ultimately affect academic success among nursing students. The tools of academic motivation and prior experiences such as role modeling and personal experience can be helpful in clinical performance and academic success among health professionals like nurses (Timer & Clauson, 2011).

**2.8 Summary**

Self-efficacy and academic motivation are educational factors that address relevant educationally influential aspects. These characteristics can enhance and highlight implications for teaching pedagogies at the higher educational level (Hegarty, 2010). The investigator of this research hopes to shed light on elements that can improve the educational experience and student success of nursing students while also adding to the current body of empirical knowledge. This literature review focuses on how self-efficacy and academic motivation can increase student achievement in efforts to prepare and promote successful learning and educational growth among today's nursing students in a globally evolving and challenging profession. This literature review provides support to the investigating research discussed in this study. The purpose of this study is

to investigate the relationship between self-efficacy, academic motivation and student achievement, as measured by GPA, among baccalaureate nursing students.

CHAPTER III

# RESEARCH METHODS

*"Nursing leaders must strive to use the same terms to describe data. They must develop plans within a global context, collaborate globally on projects to increase the number and qualifications of nursing faculty, and consider the effect of increasing globalization and migration as they project local faculty needs" (Nardi and Gyurko, 2013, p.324).*

This non-experimental correlational quantitative study was designed to: (a) explore the extent of the relationship between self-efficacy and student achievement (GPA), (b) explore the extent of the relationship between academic motivation and student achievement (GPA) and (c) determine a correlation between self-efficacy, academic motivation and academic achievement, as measured by GPA among baccalaureate nursing students. The purpose of this study is to investigate the relationship between self-efficacy and academic motivation on student achievement, as measured by GPA, among baccalaureate nursing students.

## 3.1 Research Design

The variables used within this study, based on previous research, have been shown to have statistically significant impacts on student achievement specifically within nursing and related health professions. Using multiple regression analysis, the independent variables were used to group variables that best predict the dependent variable (Mertler and Vanatta, 2013). According to Sprinthall (2007), "regression analysis capitalizes on the correlations between the dependent and independent variables in order to make specific predictions about the dependent variable" (p. 163). Multiple regression was used because there is one outcome variable and two

independent variables that were assessed. There have been no previous studies within the United States that have researched both of the aforementioned variables together among HBCU baccalaureate prepared nursing students. Additionally, "regression analysis procedures have as their primary purpose the development of an equation that can be used for *predicting* values on some dependent variable for all members of a population" (Mertler and Vannatta, 2013, p.163). A quantitative method was most preferred method for this research because the researcher was seeking information pertaining to numerical data and statistical patterns, which will be generalized to a larger population (Lochmiller and Lester, 2016). A descriptive design was applicable to this study because, as Lochmiller and Lester (2016) indicated, the intent of a descriptive study is to describe the existing relationship and practices between the variables.

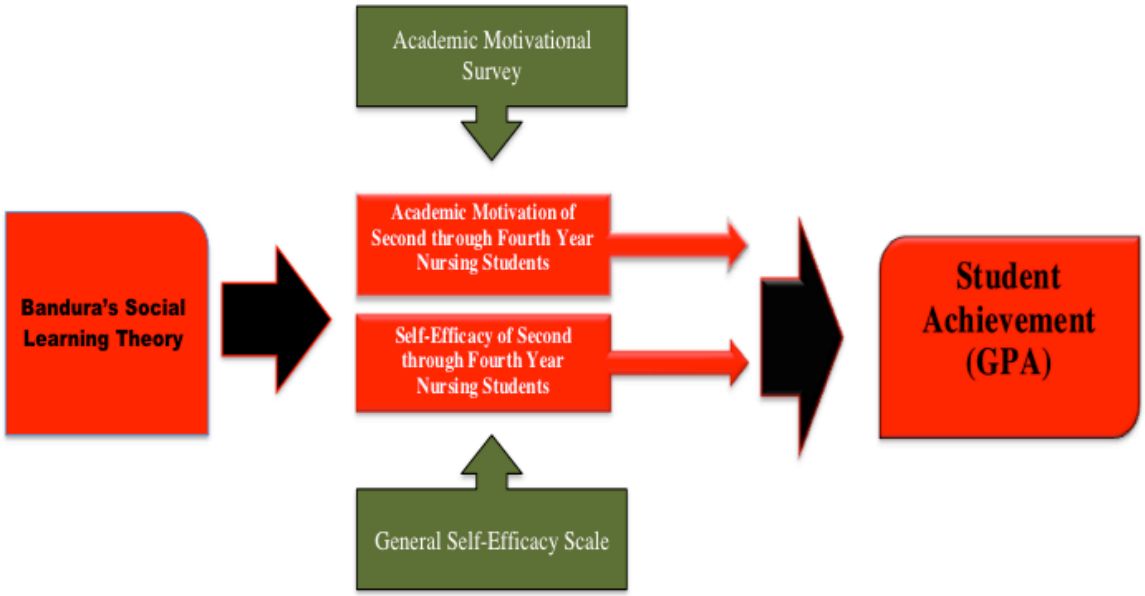
This study was designed to identify the relationship between perceived self-efficacy and academic motivation of nursing students on student achievement. A quantitative non-experimental correlational study was conducted using Pearson product moment-correlation coefficient (Pearson's *r*) correlation with the use of two surveys given to student nurses that contain Likert scale responses. Pearson's *r* correlation was selected to examine the individual and collective effects of the independent variables. Often, it is feasible to make better predictions by using more than one independent variable within a study. Pearson's *r* correlation is useful to examine a linear relationship between two or more variables. In this study, there are two independent variables and one dependent variable (Parahoo, 2006). SPSS statistical software, Version 23.0 was used to compute the data.

A demographic questionnaire administered at the beginning of the survey was used to extract and assess participants' age, gender, ethnicity, current classification, and GPA. The

demographic questionnaire contained five questions. Following the demographic section, there was a 38-item paper and pencil questionnaire administered to the participants. According to Kaur (2013), demographic surveys are significant for researchers to assess what factors may influence answers, interests and opinions on various issues. These demographic questions assisted the researcher with the comparison of the population studied and its subgroups. The demographics also defined the characteristics or attributes of the population that was collected and used to describe qualities about the sample studied (Kaur, 2013). The participants' GPA was self-reported and assessed within the demographic questionnaire. All surveys were collected by the researcher upon completion of the survey, which took approximately 10-15 minutes for each participant to complete. ANOVA (Analysis of Variance) was also used to assess the statistical means between the independent and dependent variables. ANOVA compares the means between groups of interest and determines any existing differences between those groups. ANOVA will be used in this study to test the means of the variables for statistical significance to develop and confirm explanations of observed data (Lochmiller and Lester, 2016).

Figure 3.1

*Research Design Framework*




**3.2 Study Subjects and Setting**

The study subjects were comprised of nursing students from a university within the Mid-Atlantic Region. Only students enrolled in this program were included in the study. The General Self-efficacy Scale (GSE) and Academic Motivation Survey (AMS) was utilized to collect data from nursing students to assess their levels of self-efficacy and academic motivational levels during the fall of 2016. The population of nursing students studied was 81 (N=81) from a university in the Mid-Atlantic region. The study population (N=81) has been chosen to provide an adequate sample size for this study (M. Gall, J. Gall and Borg, 2016). Participation for this study was on a voluntary basis only. The sample population in this study is an appropriate representation of similar HBCUs (Historically Black Colleges/University) in the surrounding

region. The survey was disseminated to undergraduate nursing students from a single educational institution via pencil and paper format during the fall semester. Requirements for the survey and special instructions were also provided.

The sample for the study was a convenience sample of baccalaureate level nursing students enrolled at the sophomore, junior and senior level. Recruitment was completed through verbal announcements by the program chair and faculty. The study subjects were selected from a convenience sampling pool of 81 undergraduate nursing students enrolled in a regionally accredited program through ACEN (Accreditation Commission for Education in Nursing). There was a 38-item paper pencil based questionnaire administered to 81 undergraduate nursing students during their second, third or fourth year (sophomore, junior and senior level).

**3.3 Data Collection Procedures**

Faculty informed and recruited full-time enrolled sophomore, junior and senior level nursing students for participation in this study. Following a brief explanation regarding the purpose of the study and all expectations for completion of the survey were reviewed with the study subjects. This took approximately 2-3 minutes to complete. After all questions were answered, informed consent was reviewed with each participant and signed. There was no interaction between faculty members or the researcher after the surveys were underway. Each survey took approximately 10-15 minutes to complete. All surveys and consent forms were collected and stored in a locked filing cabinet after collection. Students were reminded to maintain confidentiality about the surveys and the research project.

The questionnaire administered contained 38-items from two pre-existing questionnaires (General Self-Efficacy Questionnaire and the Academic Motivation Survey). The characteristics

of the study subjects such as age, ethnicity, sex, and GPA were addressed through demographic analysis from data collected within the questionnaire. Study subjects included sophomore, junior and senior level nursing students enrolled within the college/university who voluntarily agreed to participate within the study. The summative scores of two questionnaires were measured by looking at the levels of self-efficacy and academic achievement. Jersusalem and Schwarzer's General Self-Efficacy Scale (Jerususalem & Schwarzer, 1992) and the Academic Motivation Survey (Vallerand et al., 1992) were used. Both questionnaires assessed student levels of self-efficacy and motivation specific to assessing the correlation to student achievement. Internal behaviors or emotions experienced among nursing students that could impact academic achievement were also evaluated. The procedure for data collection involved administering a 38-item survey questionnaire. The survey was disseminated to undergraduate nursing students from an educational institution via pencil and paper format. Requirements for the survey and special instructions were also provided.

**3.4 Ethical Implications**

The goal of data collection is, according to Creswell (2014), meant to utilize the instruments chosen is to capture the causal relationships between self-efficacious beliefs and academic motivation as they relate to GPA (student achievement) in a university setting. The researcher ensures that they were free of any bias or prejudice. If some prejudice did exist among the study subjects or toward other cultures, it could potentially affect the results of the study (Creswell, 2014). This study utilized a population of a culturally diverse student population from a university in the Mid-Atlantic region of the United States.

During this study, the investigator was mindful of possible ethical issues that should be avoided. Ethical issues that may arise in this study included ensuring that the anonymity of each participant was maintained. It was critical, when working with students, that their human rights remained intact and that the researcher maintained IRB rules and regulations. It was kept in mind that IRB should also be consulted for ethical issues and for review of a code of ethics should an issue arise.

All study subjects remained anonymous via use of data coding. No students' names appeared anywhere on the questionnaire to protect the anonymity of each participant. All written materials and consent forms were stored in a locked filing cabinet in the researcher's office. The scores of the study subjects' responses appear in statistical data analysis in a concise and summarized manner.

Agreement to participate was obtained through signed informed consents completed by each participant prior to completing the survey. Informed consent contained information specific to the purpose of the study and what was asked of each participant, including the risks and benefits (if any). Once consent was obtained, data was collected during the fall semester utilizing a single-stage sample design and convenience sampling of the study subjects (Creswell, 2014).

Each student was informed that their participation was considered completely voluntary and they may withdraw their consent at any time and for any reason during the study. The decision to participate or not participate was not to be used against them in any way. The study subjects were provided with contact information for the researcher and IRB chair in the event that there were any questions regarding concerns or questions about the study.

### 3.5 Research Questions

The following research questions were addressed:

**R1**: To what extent is there a relationship between self-efficacy and academic achievement (GPA) of baccalaureate nursing students?

**R2:** To what extent is there a relationship between academic motivation and academic achievement (GPA) of baccalaureate nursing students?

**R3:** Is there a correlation between self-efficacy, academic motivation and academic achievement among baccalaureate nursing students?

### 3.6 Instrumentation

There were two instruments utilized within this study. Self-efficacy reflects an "optimistic self-belief that a person can perform a variety of difficult tasks and cope with adversity in various domains of human functioning" (Schwarzer & Jerusalem, 1995, p. 1). Having increased levels of self-efficacy promotes goal setting, personal "effort investment" and persistence when faced with barriers, challenges or difficulties that allow people to recover from setbacks (Schwarzer & Jerusalem, 1995, p.1). One of the instruments utilized will be the General Self-efficacy Scale. This 10-item scale uses a 5-point Likert response questionnaire ranging from "not at all true" to "exactly true". For the General Self-Efficacy Scale, the sum of all 10-survey items yields the final composite score with a range from 10 to 40. This survey takes on average approximately 4 minutes to complete. The higher score indicates increased levels of self-efficacy. The total score is calculated by finding the sum of all of the items. This scale is helpful for clinical practice and to promote behavior modification.

The second instrument utilized within this study is the Academic Motivation Survey (AMS), which measures several components of motivation including intrinsic, extrinsic and amotivation. Research by Vallerand et al. **(**1992) and Hegarty (2010) supports that the AMS is a popular and flexible instrument that has been used in a reliable and effective manner to study and measure motivation levels in elementary, high school, undergraduate and graduate university students across various disciplines. With its many psychometric properties, it can be used in multicultural settings and is useful in "motivation research in educational settings" (p. 1016). The AMS serves to "assign values to the three types of motivation (intrinsic, extrinsic, and amotivation) amid different student populations. Additionally, there are six subscales (sub-components) related to academic motivation contained in the AMS scale: intrinsic motivation to know, intrinsic motivation towards accomplishment, intrinsic motivation to experience stimulation, extrinsic motivation identified, extrinsic motivation external regulation, and motivation (Table 3.1). This scale was developed to further enhance the sub-constructs of the intrinsic motivational dimensions, to provide a complete and comprehensive measure for assessing various specifics of students' motives relevant to various academic contexts (Vallerand et al., 1992) and were also evaluated in this research. The six sub-scales make up the components of academic motivation (Vallerand et al., 1992). Results from various studies have been used to improve motivation among students. Motivation, as a concept, is correlated with various outcomes such as curiosity, persistence, learning and performance (Hegarty, 2010). It is a scale used in several studies within the educational setting. This scale is a 28-item scale divided into seven subscales assessing the three different types of motivation (Table 3.1). Each question

assesses motivation on a 7-point Likert response scale ("1-does no correspond at all" to "7-correspond exactly"). On average, it takes approximately 15 minutes to complete.

Table 3.1

*Academic Motivation Scale (AMS-28) Legend (Vallerand et al., 1992)*

| Scale Questions | Types of Motivation |
|---|---|
| #2, 9,16, 23 | Intrinsic motivation- to know |
| #6, 13, 20, 27 | Intrinsic motivation- towards accomplishment |
| #4, 11, 18, 25 | Intrinsic motivation- to experience stimulation |
| #3,10, 17, 24 | Extrinsic motivation- identified |
| #1, 8, 15, 22 | Extrinsic motivation- external regulation |
| #5, 12, 19, 26 | Amotivation |

**3.7 Validity and Reliability of The General Self-Efficacy Scale**

The reliability of the General Self- Efficacy Scale (GSE) has previously been used in 23 nations. Schwarzer & Jerusalem (1995) reported an internal consistency with Cronbach's alpha reliability coefficient of 0.76 to 0.90, with the majority in the high .80s. Scherbaum, Cohen-Charash and Kern (2006) performed a study using the General Self-Efficacy scale factor structure in 28 countries using confirmatory factor analysis and found the scale to be unidimensional. This previous research was a large-scale study. In a health related study, an adapted version of the Jerusalem & Schwarzer General Self- Efficacy Scale (1995) was used to measure pulse and blood pressure measurements (Rockstraw, 2006). The reliability analysis used within the pilot test conducted with use of the self-efficacy scale used demonstrated a Cronbach alpha of 0.9870 and a Pearson Correlation of 0.864 for the test-retest reliability coefficient ($p < 0.0005$).

### 3.8 Validity and Reliability of Academic Motivation Survey (AMS)

The three sub-constructs of intrinsic motivation as stated by Vallerand et al. (1992) are knowledge acquisition, accomplishment and experience simulation. The sub-dimensions of extrinsic motivation postulated by Vallerand et al. (1992) and Deci and Ryan (2000) are identified as regulation, integrated regulation and external regulation. Vallerand et al (1992) developed the Academic Motivation Survey as a reliable tool to measure motivation levels among elementary, high school and undergraduate university students. Previous research has been utilized to measure and demonstrate the consistency of the AMS measurement scale as an instrument that can provide teaching recommendations within various educational settings.

The use of the AMS scale has not previously been used among baccalaureate nursing students. Several studies have also used AMS across many cultures (Akoto, 2014; Karagüven, 2012; Hegarty, 2010; Vallerand et al., 1992). The construct validity of the AMS has been previously studied and found to be statistically significant (Vallerand et al., 1992). The AMS has a Cronbach alpha that ranges from 0.62 and 0.86 (Vallerand et al., 1992). In accordance with this study, preceding research previously investigated African American students within various areas of study in the HBCU setting using the AMS scale (Cokley 2000, 2015).

A study conducted by Wilksmann, Fischer & Virgillito (2012) used a sample of 3,687 students. In an effort to assess different departments, the participants were from various areas (social sciences, economics and engineering). The Cronbach alpha of the AMS ranged from 0.771 to 0.847 and used OLS-regression analysis for statistical analysis. Similarly, a study conducted by Vallerand et al. (1992) used confirmatory factor analysis to survey 745 university students from Canada using the AMS scale. The internal consistency was assessed with the use

of the Cronbach alpha. The values varied from 0.72 to 0.86. A pretest and posttest supported the reliability of the scale. The results from both of the abovementioned studies support the internal consistency and the reliability of the AMS scale. Vallerand et al. (1992) describes the AMS-28 scale as a multilevel structure that is a useful tool in research on topics related to motivation in educational settings.

### 3.9 Research Procedures

Once the Institutional Review Board (IRB) approval was obtained on September 29, 2016. The study subjects were informed that the purpose of this study was to investigate their personal levels of self-efficacy and academic motivation. The researcher did not recruit the study subjects, but did in fact rely on faculty members to announce this opportunity to students regarding information on the study. Faculty members were aware of which students were chosen to participate in the study. The researcher was able to hand out surveys to the study subjects and collect them once completed. The total time commitment for the participation in the study was approximately 15-20 minutes. The study subjects were asked not to share information pertaining to the survey with other students to protect the content revealed during the study. There were no identified risks associated with participation. Participation and performance were not used for evaluation in any course (Creswell, 2014).

### 3.10 Data Analysis

The purpose of this study was to examine the correlation and causal relationships between self-efficacy and academic motivation and their impact on student achievement. Data analysis was conducted by administering a 38-item survey to nursing students using paper and pencil and then transferred to an Excel spreadsheet by the investigator. Next, it was analyzed

using the Statistical Package of Social Sciences (SPSS) software version 23.0 (Statistical Package of Social Sciences, Inc., Chicago, IL, USA). Additionally, multiple regression analysis (Creswell, 2014) was sequentially used to correlate the relationships between the independent and dependent variables.

According to Creswell (2014), multiple regression and Pearson's correlation analysis (Pearson's *r*) can be used to explain the overall best fit of a particular variable and the relative contribution to each variable of the total variance explained. Multiple regression is useful to research the existing functional relationship between variables (Chatterjee and Hadi, 2006). Using a set of data analytic techniques multiple regression examines the interactions between the categorical variables. Correlational analysis was used to determine the direction and strength of the relationship between the indicators and the dependent variable (Chatterjee & Hadi, 2006). Correlational analysis was conducted using Pearson's *r* to estimate the association between the variables used and their impact on the dependent variable (Babenko-Mould et al., 2014; Hegarty 2010). The correlation coefficient was calculated to measure the strength and direction of the linear relationships between each demographic category, AMS and GSE scales respectively. In an effort to examine whether demographics had any impact on motivation and self-efficacy, ANOVA was used to determine the presence of significant relationship(s) between the means of the demographics (Hegarty, 2010).

**3.11 Summary**

The methodology investigated the relationship between self-efficacy and academic motivation on student achievement, as indicated by GPA, among baccalaureate nursing students. The descriptive information gathered from the study subjects and the analysis was utilized as a

method to identify existing relationship(s). Previous research confirms the presence of internal validity of both scales. The intent of this study was to examine the relationship between self-efficacy and academic motivation on student achievement by measuring GPA among baccalaureate nursing students. The use of the Pearson's *r* and ANOVA was used to calculate the strength, measurement and direction of the linear relationships among the variables and demographic data collected (Lochmiller and Lester, 2016). Currently, there have been no previous studies within the United States that investigate the aforementioned variables together among HBCU baccalaureate nursing students. The use of multiple regression, as a statistical analysis, allows the researcher to determine if there was a significant relationship among the variables. This is an appropriate technique because the outcome variable of interest lies between the questionnaire variables and the dependent (outcome) variable.

CHAPTER IV

# RESEARCH FINDINGS

*"Every crisis presents an opportunity for positive change. The nurse shortage creates both an incentive and moral imperative for the nursing profession and key stakeholders to act" (Allan and Aldebran, 2008, p. 296).*

The purpose of this study was to investigate the relationship between self-efficacy and academic motivation on student achievement among nursing students at a university in the Mid-Atlantic Region. There were 81 surveys completed and used for analysis.

Table 4.1 displays the frequency counts for selected demographic variables. Table 4.2 provides the psychometric characteristics for the seven summated scale scores. Table 4.3 displays the Pearson correlations for 11 variables with GPA. The results indicate positive correlations for all 11 variables with the exception of amotivation and intrinsic motivation to experience stimulation when compared to the dependent variable (GPA). Both amotivation and intrinsic motivation to experience stimulation were not significant. Student classification rank did show that senior level students had better GPAs than sophomore students. Table 4.4 provides the Pearson intercorrelations for the seven summated scale scores, which also showed high correlations among the variables. Table 4.5 displays the results for the stepwise multiple regression model that predicted GPA based on the 11 variables. Table 4.1 provides the frequency counts for selected demographic variables. Most of the nursing students in the study had ages between 18-24 years (84.0%) and were female (91.4%). The most common racial/ethnic group was Black/African-American (77.8%), followed by White/Caucasian (14.8%). The median GPA

in the sample was 2.50. The most common student classification rank was sophomore (65.4%), followed by junior (19.8%) (Table 4.1).

Table 4.1

*Frequency Counts for Selected Variables (N = 81)*

| Variable | Category | *n* | % |
|---|---|---|---|
| Age | 18-24 | 68 | 84.0 |
| | 25 and Over | 13 | 16.0 |
| Gender | | | |
| | Male | 7 | 8.6 |
| | Female | 74 | 91.4 |
| Race | | | |
| | Black/African American | 63 | 77.8 |
| | White/Caucasian | 12 | 14.8 |
| | Other | 6 | 7.4 |
| GPA [a] | | | |
| | 1.0-2.0 | 7 | 8.6 |
| | 2.0-3.0 | 40 | 49.4 |
| | 3.0-4.0 | 34 | 42.0 |
| Student Classification Rank | | | |
| | Freshman | 2 | 2.5 |
| | Sophomore | 53 | 65.4 |
| | Junior | 16 | 19.8 |
| | Senior | 10 | 12.3 |

[a] GPA: *Mdn* = 2.50.

Table 4.2 displays the psychometric characteristics for the seven summated scale scores. The Cronbach alpha reliability coefficients ranged in size from $\alpha = .62$ to $\alpha = .89$ with a median sized coefficient being $\alpha = .86$. A common guideline for reliability coefficients is that the alpha coefficient should be $\alpha \geq .70$ (Creswell, 2014). This suggested that all scales except amotivation ($\alpha = .62$) had adequate levels of internal reliability (Table 4.2).

Table 4.2

*Psychometric Characteristics for Summated Scale Scores (N = 81)*

| Score | Number of Items | *M* | *SD* | Low | High | α |
|---|---|---|---|---|---|---|
| General Self-Efficacy Scale | 10 | 33.72 | 4.32 | 17.00 | 40.00 | .87 |
| Intrinsic motivation to know | 4 | 6.05 | 0.96 | 2.75 | 7.00 | .89 |
| Intrinsic motivation towards accomplishment | 4 | 5.77 | 1.11 | 2.25 | 7.00 | .88 |
| Intrinsic motivation to experience stimulation | 4 | 5.15 | 1.13 | 2.00 | 7.00 | .81 |
| Extrinsic motivation identified | 4 | 6.37 | 0.84 | 3.00 | 7.00 | .86 |
| Extrinsic motivation external regulation | 4 | 5.89 | 1.08 | 2.25 | 7.00 | .80 |
| Amotivation | 4 | 1.57 | 0.91 | 1.00 | 4.75 | .62 |

## 4.1 Answering the Research Questions

Research Question 1 was: To what extent is there a relationship between self-efficacy and student achievement? To answer this question, Table 4.3 displays the Pearson correlation between self-efficacy and GPA. The correlation was significant ($r = .30$, $p = .007$) (Table 4.3).

Table 4.3

*Correlations for Selected Variables with GPA (N = 81)*

| Variable | GPA | |
|---|---|---|
| General Self-Efficacy Scale | .30 | ** |
| Intrinsic motivation to know | .37 | *** |
| Intrinsic motivation towards accomplishment | .31 | *** |
| Intrinsic motivation to experience stimulation | .21 | |
| Extrinsic motivation identified | .44 | **** |
| Extrinsic motivation external regulation | .32 | *** |
| Amotivation | -.15 | |
| Age | .04 | |
| Gender [a] | .02 | |
| Race [b] | .09 | |
| Student Classification Rank [c] | .31 | ** |

* $p < .05$. ** $p < .01$. *** $p < .005$. **** $p < .001$.

[a] Gender: 1 = *Male* 2 = *Female*.

[b] Race: 0 = *Others* 1 = *African-American*.

[c] Student Classification: 1 = *Freshman* to 4 = *Senior*.

Research Question 2 was: To what extent is there a relationship between academic motivation and student achievement? To answer this question, Table 4.3 displays the Pearson correlations between the six academic motivation variables with GPA. Four of the six correlations had significant positive correlations with the largest correlations being between GPA with extrinsic motivation identified ($r = .44$, $p = .001$) and GPA with intrinsic motivation to know ($r = .37$, $p = .001$) (Table 4.3).

Also in Table 4.3 are the Pearson correlations between GPA with the four demographic variables (age, gender, race, and student classification). The correlations for age, gender and race were not significant at the $p < .05$ level. However, there was a significant positive correlation between GPA with student classification rank ($r = .31$, $p = .005$) (Table 3).

Table 4.4

*Intercorrelations among the Summated Scale Scores (N = 81)*

| Score | 1 | | 2 | | 3 | | 4 | |
|---|---|---|---|---|---|---|---|---|
| 1. General Self-Efficacy Scale | 1.00 | | | | | | | |
| 2. Intrinsic motivation to know | .60 | **** | 1.00 | | | | | |
| 3. Intrinsic motivation towards accomplishment | .51 | **** | .77 | **** | 1.00 | | | |
| 4. Intrinsic motivation to experience stimulation | .55 | **** | .72 | **** | .65 | **** | 1.00 | |
| 5. Extrinsic motivation identified | .55 | **** | .77 | **** | .74 | **** | .54 | **** |
| 6. Extrinsic motivation external regulation | .25 | * | .37 | **** | .48 | **** | .30 | **** |
| 7. Amotivation | -.31 | *** | -.27 | * | -.27 | ** | -.22 | * |

* $p < .05$. ** $p < .01$. *** $p < .005$. **** $p < .001$.

Table 4.4 *Continued*

| Score | 5 | | 6 | 7 |
|---|---|---|---|---|
| 1. General Self-Efficacy Scale | | | | |
| 2. Intrinsic motivation to know | | | | |
| 3. Intrinsic motivation towards accomplishment | | | | |
| 4. Intrinsic motivation to experience stimulation | | | | |
| 5. Extrinsic motivation identified | 1.00 | | | |
| 6. Extrinsic motivation external regulation | .60 | **** | 1.00 | |
| 7. Amotivation | -.42 | **** | -.12 | 1.00 |

* $p < .05$. ** $p < .01$. *** $p < .005$. **** $p < .001$.

Research Question 3 was: Is there a correlation between self-efficacy, academic motivation and student achievement among baccalaureate nursing students in the Mid-Atlantic Region? As a preliminary analysis, Table 4.4 displays the intercorrelations among the seven scales scores. Inspection of the table found 11 of the 21 correlations to be at least $r \geq .50$ with four of those correlations $r \geq .70$. Given the concern of multicollinearity (high correlations among the predictor variables) invalidating the model, stepwise regression was used instead of standard multiple regression to eliminate non-significant predictors and redundant predictors (Cresswell, 2014).

Table 4.5 provides the results of the stepwise multiple regression model that predicted GPA based on the 11 candidate variables listed in Table 4.3 (seven scale scores and four demographic variables). The findings did show correlation between academic motivation and student achievement (GPA) among the study subjects. The results for the stepwise regression

model indicate specifically that extrinsic motivation identified and student classification ranks are the two strongest predictors to determine student achievement (higher GPA). Students were found to have higher GPA when they had higher extrinsic motivation identified and higher student class rank (specifically seniors). The final 2-variable ANOVA model was significant ($p$ = .001) and accounted for 24.6% of the variance in the students' GPA. Specifically, higher GPA was related to greater levels of extrinsic motivated identified (β = .39, $p$ = .001) and a higher student classification rank (β = .23, $p$ = .03) (Table 4.5).

Table 4.5

*Prediction of GPA Based on Selected Variables. Stepwise Multiple Regression (N = 81)*

| Variable | *B* | *SE* | β | *p* |
|---|---|---|---|---|
| Intercept | 0.97 | 0.49 | | .05 |
| Extrinsic motivation identified | 0.30 | 0.08 | .39 | .001 |
| Student Classification Rank [a] | 0.20 | 0.09 | .23 | .03 |

Final ANOVA Model: $F$ (2, 78) = 12.70, $p$ = .001. $R^2$ = .246. Candidate variables = 11.

[a] Student Classification: 1 = *Freshman* to 4 = *Senio*

**4.2 Summary**

In summary, there were 81 surveys completed for this research and used for analysis to investigate the relationship between self-efficacy and academic motivation on student achievement among nursing students at a university in the Mid-Atlantic Region. Research Question 1 (self-efficacy and GPA) found a significant, positive relationship (Table 4.3). Research Question 2 (motivation and GPA) found significant, positive correlations for four of the six motivation variables with GPA (Table 4.3). Research Question 3 (self-efficacy, motivation and GPA) found the final stepwise regression model to include extrinsic motivation

identified and student classification rank to be positively related to GPA (Table 4.5). In the final chapter, these findings will be compared to the literature, conclusions and implications will be drawn, and a series of recommendations will be suggested.

CHAPTER V

# CONCLUSIONS

*"Nursing is the protection, promotion, and optimization of health and abilities, prevention of illness and injury, alleviation of suffering through the diagnosis and treatment of human response, and advocacy in the care of individuals, families, communities, and populations" (American Nurses Association, 2010, p.1).*

In this chapter, the researcher will compare research findings in this study to the literature, draw conclusions based on the knowledge of self-efficacy, academic motivation and student achievement (GPA), and evaluate implications to make a series of recommendations. The purpose of this study is to investigate the relationship between self-efficacy and academic motivation on student achievement, as measured by GPA, among baccalaureate nursing students. The following research questions were addressed: R1: To what extent is there a relationship between self-efficacy and academic achievement (GPA) of nursing students? R2: To what extent is there a relationship between academic motivation and academic achievement (GPA) of nursing students? R3: Is there a correlation between self-efficacy, academic motivation and academic achievement among baccalaureate nursing students? This study was considered because there is limited existing research on the variables among HBCU baccalaureate nursing students. Gaps in the literature on the relationship between the independent and dependent variables will also discussed in this chapter. The limitations will be reviewed and suggestions for future research will also be made.

## 5.1 Summary of Research Results

This chapter presents the conclusions and findings of this study. It also contains the methodology in light of its implementations, gaps in the literature, results, and the effects on the knowledge base of self-efficacy, academic motivation and student achievement. The findings of this study addressed self-efficacy, academic motivation and student achievement among baccalaureate nursing students at an HBCU institution. The results confirm the conclusions of previous studies regarding the significance of the variables. There are no previous studies that research the same variables among the studied population of baccalaureate nurses at an HBCU. Many of the previous analyses and research were conducted in the context of different educational settings. This study also assessed demographic variables amidst the population studied and contributed to the literature for future research and implications in higher education and nursing practice. Implementation factors should be considered by educational leaders in order to enhance these factors for all students and determine a deeper understanding of the mechanisms behind self-efficacy, academic motivation and academic achievement among nursing students (Yusuf, 2011). The hope is that future research will be able to use the findings from this study to assist faculty, staff and administration in understanding cognitive learning modalities (like self-efficacy and academic motivation) that can be useful in increasing student achievement and success. Future researchers may also be able to use studies like this one to make changes to current and future nursing, educational practices and policy implementations for nursing education. The lack of research in these areas suggests that additional research is necessary. Studies such as this one are important to the nursing profession and education because it helps to fill gaps in the literature.

## 5.2 Discussion of Results

The findings of this study indicate statistically significant positive correlations between self-efficacy, academic motivation and the affects of these variables on GPA, specifically among senior students. GPA was increased among students who reported higher levels of self-efficacy. There is a positive statistical relationship between self-efficacy and GPA among those studied. The findings also revealed a positive statistical relationship between academic achievement and GPA in four of the six subscales (66.7%) assessed within the survey. Student achievement was also higher when students had more extrinsic motivation identified, intrinsic motivation to know and higher class rank (specifically seniors). Four of the six correlations were significantly positive correlations with the largest correlation being between GPA with extrinsic motivation identified and GPA with intrinsic motivation to know. Using stepwise regression analysis, the findings support the strongest predictors relative to GPA of those studied were student class rank, extrinsic motivation identified (to do something because one has decided to do it even though it is not exciting) and intrinsic motivation to know (to do something for the desire and fulfillment they experience while learning) out of all other variables studied (11 candidate variables). Amotivation (the lack of extrinsic and intrinsic motivation) and intrinsic motivation to experience stimulation (to do something in order to experience exciting feelings) were both found to be of no statistical significance (Vallerand et al., 1993). Therefore, students in this study were motivated by both extrinsic and intrinsic factors. Four of the six academic motivational factors were most influential on student GPA. The findings show that students were more motivated by external factors than intrinsic factors. Out of all sophomore, junior and senior students studied, the findings revealed seniors had the highest GPA. This may be due, in part to,

the GPA requirements for many nursing programs, nursing program pre-entry qualifications, and various benchmarks that students must meet in order to enter and remain in the program as discussed in Chapter 2. Vallerand, Pelletier and Koestner (2008) indicates, in regards to the impact of motivation on outcomes, "one should take into consideration the nature of the task in making predictors regarding which type of motivation has the most positive impact on outcomes" (p.259). Further research may be important to determine how a students' environment may regulate the "content of motivational clusters and their consequences" (p.259).

The results of this study also indicate that the percent of variance accounted had 24.6% explaining power. This means the independent variables studied accounted for approximately 25% of the explaining power for positive statistical significance of GPA (extrinsic motivation identified and student classification rank). The researcher realizes there are many other outside factors that can account for increases or decreases in student GPA that were not addressed in this study (approximately 75.4%). Other factors that can influence student performance or success (GPA) may include, but are not limited to work-life balance, high school GPA, family/parental influences, external pressures, etc. Therefore, contributions to the literature that explore these and other influential factors are necessary to add to the current body of research. The investigation of these factors should be further examined to see which factors possibly have the most influence on student GPA and achievement. Vallerand et al. (2008), indicates that there are many situational factors that, given the social context, can affect student performance and future research. The level of motivation is directly related to the task at hand and the situation a student is faced with and may vary depending on the circumstance. Faculty, staff and administration may be able to use these factors to establish which of them have the highest influence on GPA

and work with students to alleviate or cope with additional stressors to increase achievement and performance in the classroom.

### 5.3 Variations in Reliability Coefficients

The reliability of this research was similar to both pre-existing surveys utilized within the research (GSE scale and AMS). In comparison to the research questions addressed in this study, the correlations did have a positive impact on the research findings. The correlations ranged from 0.30-0.70. This indicates positive moderate to high levels of significance were noted. The validity of this research also supports that the measures researched did accurately reflect the researchers study intentions.

### 5.4 Opposing Views

There are some researchers with opposing views regarding the effects of self-efficacy and academic motivation as factors that positively impact student achievement (GPA). For example, Brannagan, Dellinger, Mitchell, Lewis-Trabeaux and Dupre (2013) found during a mixed-methods study that there was no statistical significance in levels of knowledge acquisition and self-efficacious beliefs for those nursing students who received peer tutoring in conjunction with faculty instruction. This study included 179 first year and 51 third year nursing students. The results did show that those who received peer tutoring in conjunction with faculty instruction, in some cases, had increased levels of anxiety while performing lab skills with their tutors as opposed to their instructors. The researchers stated that these findings were different from previous research outcomes with the use of peer tutors not improving levels of self-efficacy (Brannagan et al., 2013).

Another opposing study conducted by Nilsson and Stomberg (2008) focused on feelings of motivation among students concerning their studies between their first and third year in nursing school. According to Nilsson & Stomberg (2008), previous studies have analyzed the importance of motivational factors in comparison with their commitment to study using content analysis and statistical calculations (Nilsson & Stomberg, 2008). The findings of the 315 participant study concluded that the students did have high levels of motivation throughout their entire three-year nursing career and had statistically significant levels of extrinsic and intrinsic motivational levels due to their desire to want to embark on their nursing careers.

Cokley (2015) also conducted a study utilizing confirmatory factor analysis of the AMS and Black college students. The results indicated that the hypothesized seven-factor model data were not a good fit and further research with use of AMS is needed.

Taylor and Reyes (2012) conducted a study on self-efficacy and resilience in baccalaureate nursing students. The findings indicated no statistical differences among the study subjects. Those who possessed the characteristics of self-efficacy and resilience were not more academically successful as evidenced by test scores over the course of their education. Among those 136 baccalaureate nursing students studied, during a single semester, no statistically significant differences were found in perceived self-efficacy or resilience in total scores between early semester and late semester measurements.

Maurer, Allen, Bell Gatch, Shankar, Sturges (2012) conducted a study that assessed student motivations in allied health classes utilizing multivariate multiple regression analysis and an adapted version of the AMS questionnaire. The results yielded that when allied health professional courses were assessed, in comparison to previously published data, only intrinsic

motivation and amotivation were significantly related to their academic behaviors and course perceptions. Extrinsic motivation was not found to be statistically significant in relation to academic behaviors and course perceptions among allied health professional students. It was also noted that despite the high levels of extrinsic motivation among those studied, the findings were not related to students' academic behaviors. This study recommends that instructors consider alternate avenues that may influence behaviors that promote academic success. Findings also show that faculty staff and instructors "may need to consider alternate routes to influence students' academic success behaviors as it appears attempts to influence their extrinsic motivations may not essentially translate to changes in academic behavior" (Maurer, 2012, p.1).

**5.5 Conclusions Related to the Field of Nursing**

Based on the findings of this research, it was determined there were several recommendations for the nursing profession that can improve student achievement among nursing students. The importance of developing an educational environment to promote academic success can be done through the enhancement of current programming, mentorship and other educational opportunities for nursing students in the classroom setting (Turale, 2011; Brown, 2012; McDermid et al., 2012; Maurer et al., 2013; Feldman et al., 2015). This research evaluates the effects of self-efficacy and academic motivation on student achievement among nursing students and was undertaken using the theoretical context of Social Learning Theory (Bandura, 1977). Bandura's Social Learning Theory (1971) was chosen for this study to enable researchers to understand the relevance of this research. Educators and policy makers in the area of higher education can utilize this study to evaluate other theoretical frameworks that can be useful in increasing student achievement. Change has to be implemented in order to improve

current practices. Former experiences and minimally met objectives can no longer drive the models of current nursing educational practices (Brown, 2012). There is little research that currently evaluates student characteristics and their ability to improve success among students (Brown, 2012). This study will be used to fill gaps in literature and increase existing research regarding self-efficacy, academic motivation and student achievement in higher education.

According to Eyong (2016), the ability to determine which students are not likely to succeed is an ethical and professional duty of faculty in nursing. There is a need for further study to determine what other variables may influence academic success as this study cannot independently be used to conclude which students are not likely to be successful in any nursing program (Eyong, 2016). This researcher also hopes that the findings will assist in identifying necessary goals and direction for faculty regarding the implementation of practices that can affect student achievement and increase faculty retention to reduce the current nursing shortage. New avenues to improving student achievement should be considered as higher education is shifting and the need for an advanced degree becomes even more vital, especially within the nursing profession. Giving students the tools they need to improve their own success also provides them with increased independence and autonomy to build confidence in both career and professional practice.

**5.6 Conclusions Related to Educational Leadership**

It is the goal of this researcher to contribute to education and the nursing profession by looking at key factors that can be beneficial in adding to the educational experience of students in higher education and encourage increases in student achievement. The researcher hopes that nursing leaders and faculty can also use the results and the conclusions from this study to provide

insight in creating programs and improving policies and practices in leadership development, not only in nursing but in various areas of study. The hope also is that new and more current options will be considered to improve student achievement based student needs while bridging generational differences in the classroom setting to improve success outcomes. The consideration of using appropriate and relevant technology is essential in nursing practice and also in education. Practical use of technology in the classroom could theoretically enhance understanding and motivate students, especially among Millennial and Generation X populations (Turale, 2011). There is a need to also consider options for improving the current view on nursing education as a career option for students in the future. Making the educational profession more attractive through options like fast-track faculty prep and mentorship programs for faculty and students will hopefully provide the necessary to reduce the current faculty shortage. This is crucial to educate and create prudent and well-prepared nurses for the future.

**5.7 Alignment of Theoretical Framework**

Nilsen (2009) and Linnenbrink & Pintrich (2002) support Bandura's philosophy that academic motivation and self-efficacy are two of the most influential factors on a student's academic performance. These same concepts are also valuable to promote and increase academic motivation. Students with higher levels of self-efficacy have been shown to readily participate in the classroom, have higher persistence and encounter fewer negative experiences when faced with difficult situations (Bandura, 1997; Sitzmann & Yeo, 2013). Successful relationships between faculty and staff along with incorporating the enhancement of mastery experiences will bolster self-efficacy and increase student achievement. People develop self-efficacy through their own interactions and observations of others. Sitzmann and Yeo (2013) report that "past

performance has a positive effect on self-efficacy and can be used to judge one's capacity to succeed in the future" (p.534). The use of Social Learning Theory as a theoretical framework for this study was selected as an appropriate theory because it outlines human behaviors and human interaction.

Self-determination Theory is an alternate theoretical framework that can be utilized for additional research (Maurer et al., 2013; Vallerand et al., 2008). Future researchers may find that use of an alternate theoretical framework that is related to human behavior, student interaction and performance could be useful for further research. According to Maurer et al. (2013), student motivation is an essential predictor of academic performance and achievement. Deci and Ryan's Self-Determination Theory (SDT) is an appropriate framework that has been utilized to explain student behaviors through the understanding of student motivation and experience.

**5.8 Conclusions and Implications for Future Research**

The results of this study can be advantageous for students, faculty and nursing leaders. This researcher cautions that the results of this study should not be generalized to all student populations and recommendations for further research. Nurse educators can play an important role in enhancing nursing student self-efficacy and academic motivation (Kennedy et al., 2015; Duchscher, 2009). According to Miyoshi (2012), therapeutic curricular and educational programs improve factors like general self-efficacy among students. Hall et al. (2012) supports that the nursing shortage receives a lot of general attention. The causative factors for the shortage should be further explored in order to identify possible explanations behind why it exists. Future research may help to discuss other cognitive factors to enhance learning in higher education and possibly for other subject areas. The implementation of supportive interventions is important to

improve student achievement. For example, programming, mentoring, fast track faculty prep and technology in the classroom can be used to enhance the use of educational resources. Previous researchers also support that these factors can enhance nursing curricula, improve current educational standards and also increase the number of nursing faculty (Wyte-Lake, Tran, Bowman, Needleman, and Dobalian, 2012).

**Mentor-mentee programs.** The recommendations to increase self-efficacy and academic achievement include creating a mentor-mentee program for faculty and students and implementing fast track faculty preparation programming (Feldman et al., 2015; McDermid et al., 2012). These suggestions may provide educational opportunities and mentoring experiences to enrich faculty and student abilities.

Faculty can be influential in the academic success outcomes of their students through various support mechanisms, which include: fostering student success, emphasizing student well-being and confidence, increasing motivation and enthusiasm among lectures in the classrooms, and learning by doing (Nilsen, 2009). The implementation of mentor-mentee programs would be beneficial in enhancing student career options and optimizing faculty resources that will foster the likelihood of success between both groups (Ferrell et al., 2016). These programs help students' transition into the nursing profession as prudent graduate nurses and foster a supportive environment for those currently in the workplace (McDermid et al., 2012). Educators and institutional leaders should consider curricula that take into account these experiences that are both practical and meaningful to students (Altmann, 2011).

**Fast track faculty preparation and training.** Creating fast track faculty preparation and enrichment programs will allow faculty to be trained quickly and be informed on how to increase

self-efficacy and academic motivational levels among students to assist in improving performance and increase student achievement. Various approaches to advisement may help students by providing direction and support to promote general academic success (Shellenbarger & Hoffman, 2016). Fast track training will also help with the orientation process to get faculty quickly acclimated with university practices and job expectations hopefully to begin to improve current issues regarding the aforementioned faculty shortage. Researchers confirm that there is currently no consensus or organized plan in place to address this problem. This study, by providing insight regarding strategies to attract qualified nurses to become full-time tenured faculty, is important to counteract this issue and allow them to have options that can quickly get them to a tenured position, which may encourage and attract more applicants to increase the current number of needed faculty in the classroom (Nardi & Guyrko, 2013).

**Technology in the classroom.** Additionally, nursing leaders and faculty should also consider increases in innovative and technological opportunities to stay current and also allow for enrichment of cognitive abilities and qualities among students through avenues like modules, online courses and other learning modalities. Kenny et al. (2012) support that technology, specifically, is very useful in nursing education in clinical courses, simulation learning, human learning capacities and social aspects in an effort to improve student success, confidence and well-being. These factors, in turn, influence academic behaviors and academic accomplishments (Nielsen, 2009).

Future research may also be useful to examine the impact the other types of self-efficacy and motivation on student achievement. While the variables addressed within this study are important to academic achievement, they are not the only determining factors. Other cognitive

factors should be explored that can affect attitudes, values and social interactions. Expanding faculty and educational resources through simulation learning and distance learning strategies will help to improve current professional processes and outcomes (Ganley and Sheets, 2009; Allan & Aldebron, 2008; Hinshaw, 2001).

**5.9 Best Practices to Improve Outcomes**

Implementation factors should be considered by educational leaders in order to enhance the studied variables for all students to determine a deeper understanding of the mechanisms behind self-efficacy, motivation and academic achievement among nursing students. These same implementation factors can be helpful for further research to assess similar personal qualities and cognitive factors within various subject areas. Allan & Aldebron (2008) conducted an assessment of nationwide strategies utilized to counter the nursing faculty shortage. The researchers suggest that current practices be evaluated based on outcomes where "the deficit of educators is a key impediment of filling the growing demand for nurses generated by an aging population and a weak supply of new graduates" (p. 286). Various approaches, such as concentrating on methods to educate more faculty, expand the teaching capacity of existing faculty and improve academic innovative (new curricula) programs and practices can be adopted to expand educational resources with the goal of increasing student enrollment and graduating academically prepared nurses. The research also supports the need for evaluation of outcomes and assessments of current and new practices to evaluate for effectiveness (Ganley & Sheets, 2009; Allan & Aldebron, 2008).

### 5.10 Personality Factors

The findings of this research may have also been impacted by the personalities traits and characteristics of the study subjects. Future research may consider use of an instrument that assesses how personality traits can potentially affect student response, learning and performance levels. Student personality traits can impact the way that they internalize information, how they ascertain information and how well they adjust professionally. Faculty must also take into consideration student personality traits in the classroom to accommodate for learning curves, variability traits and how well a student thinks they can perform in the classroom setting. These personality factors can leave students with feelings of both optimism or discouragement depending on the class setting, rigor of the course as well as other outside factors not discussed in this research. Future research will help to shed light on these potential impacts that personality traits can have on student learning which would help instructors make necessary adjustments on teaching factors and other helpful tools that can be used to accommodate students individually.

### 5.11 Methodological Enhancements for Future Research

Other changes to research that may improve and enhance current and future research may also include changes to the population surveyed (looking at other majors or study areas), changes to research design approaches, data collection and use of various instruments and research methodologies. Moreover, future studies can also be conducted to investigate the relationship between self-efficacy and academic motivation on high school GPA, or college GPA. High school GPA is used as a predictor in higher educational settings as a factor for college admission and success (Soh, 2011). Future research may also include increasing the number of study subjects studied. Another option includes considering other institutions/populations. For

example, Predominately White Institutions (PWIs), community colleges, those institutions in the U.S. and possibly those outside of the U.S. Other populations for future research may include nurses where English is a second language, first year students and first-generation college students. Future studies may consider longitudinal research that addresses students beyond their college education to determine how cognitive factors like self-efficacy and academic motivation are utilized within their profession. Another methodological enhancement for future investigation may include action research that explores experimental research regarding nursing students.

This study was limited to a 4-year college in the mid-Atlantic region. These variables can also possibly be studied in other 4-year baccalaureate colleges across the country in various geographical locations and socioeconomic levels to determine if self-efficacy and academic motivational factors will vary. This study may lead to results, which support other comparative analysis between 4-year institutions. This information could help faculty and administrators determine if they should design programs to improve nursing programs and student performance based on diverse geographic locations.

**5.12 Policy & Practitioner Recommendations**

The nursing field needs to challenge current standards and trends as it finds itself with an aging workforce, high turnover and other job opportunities on the rise. These account for several reasons as to why significant changes in nursing education, practice, and policy need to be implemented. There are numerous policy recommendations for nursing and education that have emerged from the findings of this study. Long term goals for nursing education include the need to implement policy changes in nursing university programs, curricula, and the consideration of

utilizing action research to contribute to both nursing and higher education. Cognitive factors that lead to enhanced performance and academic achievement are crucial to improving current nursing standards. Many times, students have the necessary drive to be successful within themselves. Various methods to enhance the use of these components can be discussed with faulty, staff and educational leaders to build student success. These improvements can be made to ensure students are successful beyond the classroom and professionally, such as changes in credentialing practices and examinations (NCLEX). Short-term goals for policy change may include leadership-mandated modifications at the higher education and practitioner levels. Some examples may include administrative recommendations for local college/university strategies and other tactics that will be beneficial in improving academic achievement and performance.

The nursing profession is confronted with a confounding shortage of nursing faculty that requires "a call to action" (Hinshaw, 2001). Several strategies for countering the nursing faculty shortage have been suggested including changes to current nursing practices and improving self-efficacy and academic motivational factors among nursing students that is supported by the aforementioned research mentioned in this study. This is in an effort to give students the tools they need to increase student achievement and improve academic success. Studies like this one aim to provide students, faculty and administration with options to enhance student achievement. This type of research is crucial in higher education to meet the current and future needs of students, faculty and administration especially in the field of nursing and those of the like. The goal of this research is to improve nursing student performance with the use of various influences like self-efficacy and academic motivation. One major focus in nursing education is to improve student achievement and to generate professional nurses that will ultimately provide

exceptional clinical care and make appropriate clinical decisions. Clinical expertise is improved by seeking out learning opportunities and challenges (Hinshaw, 2001).

### 5.13 Final Conclusions

The nursing shortage is one of the most inspiring trepidations for higher education and the nursing profession. The outcomes of the current nursing faculty shortage will have major influences on reducing and governing the shortage of nurses. This is a daunting task for the nursing profession. Each nursing program is confronted with the issue of a shortage of nursing faculty and must treat this major dilemma as a challenge. The objective of this study was to add to the current body of research on the importance of self-efficacy and academic motivation among students and the positive impacts these variables have on student achievement among HBCU nursing students. By providing supportive interventions to both students and faculty, they can be given the tools necessary to ultimately improve the nursing shortage. With the use of various approaches like innovative teaching strategies, mentoring programs and fast track faculty preparation and increasing student academic motivation and self-efficacious beliefs, the nursing profession can begin to overcome the difficult task of appropriately educating current and future nursing students. This can be done by honing in on internal motivators that encourage students to persist and succeed (Feldman et al., 2015; McDermid et al., 2012). In doing so, these factors can assist in developing qualified nursing professionals for current and future generations in an effort to adequately and appropriately serve our communities, our nation and the world.

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# APPENDICES

## Appendix A

## Approval To Use General Self-Efficacy Questionnaire

June 16, 2016

Dr. Schwarzer,

Hello. I am conducting a small study with student nurses and the relationship between self-efficacy and student achievement. I want to assess how self-efficacy affects student achievement (GPA) and academic success among nursing students.
I would like your permission to adapt and use your self-efficacy tool for my study. I will give credit to you and Dr. Jerusalem. I have attached the adapted tool for you. Thank you in advance for your time and attention given to the request.

yes, welcome

This correspondence is for the named person's use only. It may contain confidential or legally privileged information or both. No confidentiality or privilege is waived or lost by this transmission. If you receive this correspondence in error, please immediately delete it from your system and notify the sender. You must not disclose, copy or rely on any part of this correspondence if you are not the intended recipient.

## Appendix B

## Approval To Use Academic Motivation Survey (AMS-28)

Dr. Vallerand,

Thank you so much.

On Jun 16, 2016, at 7:39 PM, Bob Vallerand <vallerand.bob@gmail.com> wrote:

Dear Nicole,

You have my permission to use the scale.

Good luck with your research,

Bob

On Thu, Jun 16, 2016 at 5:06 PM,
Hello. I am conducting a small study with student nurses. My study is regarding the investigation of the relationship between self-efficacy, academic motivation on student achievement. I want to assess how self-efficacy and academic motivation affect GPA among nursing students.
I would like your permission to adapt and use your Academic Motivation Scale (AMS-28). I will give credit to you and the other researchers (Pelletier, M., Blais, M., Senècal C., and Vallières E.) I have attached the adapted version I would like to use for your review. Please let me know if and when you receive my correspondence. Thank you in advance for your time and attention given to the request.

## Appendix C

## Letter of Request to Conduct Study to Department Chair (Nursing)

May 10, 2017

Dr. Agnes Richardson
Acting Chair- Department of Nursing
Price Bldg. Room 121
1200 N. DuPont Highway
Dover, DE 19901-2277

Dr. Richardson:

I am writing to ask you for permission to conduct a small study within the nursing department at Delaware State University. The research will be strictly voluntary and I will obtain informed consent from all students. The title of my study is: The Relationship between Self-efficacy and Academic Motivation on Student Achievement among Baccalaureate Nursing Students. Understanding the benefits of this study may guide faculty in developing meaningful learning opportunities for nursing students to aid in academic success.

I am respectfully requesting a letter of commitment from the institution that I will be performing the study for the Delaware State University IRB. I have also attached the IRB application for DSU, which also has the consent form. I appreciate your time and attention regarding this request. If you have any questions or comments, please feel free to call or email me at (302) 632-7307. Thank you.

**Appendix D**
**Letter Granting Permission to Conduct Study from Department Chair**

DELAWARE STATE UNIVERSITY

DEPARTMENT OF NURSING

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August 17, 2016

Mrs. Bell-Rogers, RN, MSN, FNP Ed.D.
Candidate Office of Student Health Survives
1200 N. DuPont Highway
Dover, DE 19901-2277

Dear Mrs. Bell Rogers:

Please note that in regard to your request to conduct your survey with the Nursing Department's constituents (students, faculty or whichever), this letter is affirmation that the Department approves your research request. Of course, the Department, consistent with protocol, will review your instruments and informed consent documents. As you know, these items will also be reviewed by the University's IRB Committee. You may have already submitted your application to the IRB. If so, please copy my office with the IRB letter when you have completed the IRB process. Should you have any questions or concerns, I encourage you to let me know.

## Appendix E

## Approval Letter from Delaware State University Institutional Review Board

September 29, 2016

Ms. Nicole Bell Rogers
Department of Education
Delaware State University
Dover, Delaware 19901

Dear Ms. Rogers

Delaware State University's Institutional Review Board (IRB)-Human Subjects Protection Committee has reviewed your research project **"The Relationship between Self-Efficacy and Academic Motivation on Student Achievement among Baccalaureate Nursing Students"**.

The Committee has **approved** this application and requires that an annual progress report be submitted before September 29, 2017. Please send this report to:

Institutional Review Board
Office of Sponsored Programs
Attention: Chanel Haman
Delaware State University
1200 N. DuPont Highway
Dover, DE 19901

**Appendix F**

**Institutional Review Board Application**

**Institutional Review Board – Human Subjects Protection Committee**

*Application for Approval of Investigations*

Involving Human Subjects

Please Read Carefully and COMPLETE ALL ITEMS:

1. **Principal Investigator's Name: Nicole Bell Rogers**
(Student, Faculty, Staff — Circle or **Bold** one.)

**Co-Investigator Name: n/a**
(Student, Faculty, Staff — Circle or **Bold** one.)

**Department: Education**

2. **If you are a student, provide the following:**

**Faculty Sponsor: Dr. Richard Phillips & Dr. Pat Carlson Department: Education**

**Faculty Sponsor Phone: Dr. Phillips & Dr. Carlson**

**Is this your class research project/assignment? Yes _____ No X**

**Thesis? Yes _____ No X**

**Dissertation Research? Yes X No _____**

3. **Title of project: The Relationship between Self-Efficacy and Academic Motivation on Student Achievement among Baccalaureate Nursing Students**

**4. Project Period: From: Fall 2016 To: Spring 2017**

**5. Has this project previously been considered by any IRB? Yes _____ No X**

**If yes, give approximate date of review. _____**

**6. Is a proposal for external support being submitted? Yes _____ No X**
**If yes, you must submit one complete copy of that proposal as soon as it is available and complete the following:**

**a. Is notification of Human Subject approval required? Yes X No _____**

**b. Is this a renewal application? Yes _____ No X**

**c. Sponsor's Name: Dr. Richard Phillips**

**d. Project Period From: Fall 2016 To: Spring 2017**

**7. You must include copies of all pertinent information such as a copy of the questionnaire you will be using or other survey instruments, informed consent documents, letter of approval from cooperating institutions, copy of external support proposals, etc. For graduate students, include a copy of your prospectus.**
***Please see attached.***

**8. If approved by Delaware State University IRB, the approval expires one year after the date noted on the Approval Letter.**

**If the application is the same without changes, and the project needs to continue past the one year approval, a Continuing Review Form must be submitted to the IRB for consideration.**

**The Principal Investigator is responsible to complete a Final Study Report Form when the project is completed and forward the report to the IRB.**

**I have read and understood the above requirements.**

_____

**Signature --- Principal Investigator**

**Provide the following information, using the application format, to the Institutional Review Board - Human Subjects Protection Committee.** ***Please number all pages.***

## I. PROPOSED RESEARCH PROJECT

### A. Provide a brief summary of the proposed research. Include major hypotheses and research design.

The purpose of this study is to investigate the relationship between self-efficacy and academic motivation on student achievement, as measured by GPA, among baccalaureate nursing students. This study will help educational leaders, administrators and universities to improve and influence student learning to enhance achievement. Understanding the benefits of this study may guide faculty in developing meaningful learning opportunities for nursing students to aid in their academic success. The major theoretical framework is Social Learning Theory (Bandura, 1977). Multiple regression will be used to answer the following research questions:

**R1**: To what extent is there a relationship between self-efficacy and academic achievement (GPA) of baccalaureate nursing students?
**R2:** To what extent is there a relationship between academic motivation and academic achievement (GPA) of baccalaureate nursing students?
**R3:** Is there a correlation between self-efficacy, academic motivation and academic achievement among baccalaureate nursing students?

The researcher will use Analysis of Variance (ANOVA) to compare the groups. In addition, Pearson's Coefficient will be used to determine whether there is a relationship between the variables. Lastly, descriptive statistics will also be used to identify any patterns, trends or frequencies within the data.

### B. Describe the sources(s) of subjects and the selection criteria. Specifically, how did you obtain potential subjects, and how will you contact them?

The study subjects will be comprised of students that attend an HBCU (Historically Black Colleges/University) baccalaureate nursing program within the Mid-Atlantic Region. The nursing program in this study is accredited by ACEN (Accreditation Commission for Education in Nursing). Only students enrolled in this program will be included in the study. The population of nursing students studied will be approximately 89 (N=89). The study population (N=89) has been chosen to provide an adequate sample size for this study (M. Gall, J. Gall and Borg, 2016). Participation for this study is on a voluntary basis only. The sample to be used for this study will have high levels of homogeneity. The survey will be disseminated to undergraduate nursing students during the first student nurse meeting of the school year via pencil and paper format.

Requirements for the survey and special instructions will also be provided prior to completing the survey (see participant consent form).

The sample for the study is a convenience sample of baccalaureate level nursing students enrolled at the sophomore, junior and senior level. Recruitment will be completed through verbal announcements by program faculty during course orientation and using posted signage on bulletin boards.

Participation for this study is strictly on a voluntary basis. The sample to be used for this study will have high levels of homogeneity. The sample population in this study is an appropriate representation of similar nursing programs in the Mid-Atlantic region of the U.S. at an HBCU (Historically Black Colleges/University). The study subjects will be enrolled in similar courses within their perspective nursing programs during their second, third and fourth year.

**C. Informed Consent: Describe the consent process and attach all consent documents. Elements of informed consent are:**

1. **A clear statement that "the study involves research"**
2. **All the research purposes are clearly stated**
3. **The expected procedures to be followed**
4. **The duration of involvement by the subject**
5. **When procedure(s) are experiential**
6. **Reasonably foreseeable discomfort and risks**
7. **If more than minimal risk, "In case of injury or severe adverse reaction..."**
   a. **is medical care available? By whom? Where?**
   b. **is compensation available? How?**
   c. **whom should the subject contact?**
8. **Reasonably expected benefits to subject and others**
9. **How and where will the data be published?**
10. **The alternatives to the research's diagnostic method or treatment**
11. **How confidentiality or anonymity are maintained**
12. **Who will answer questions about the research itself?**
13. **Who will answer questions about the subject's rights?**

***(Please see attached Informed Consent Form)***

Faculty will inform and recruit full-time enrolled sophomore, junior and senior level nursing students for participation in this study using a script read in orientation. Signs will also be posted on nursing bulletin boards. Once all students are present during orientation, a brief explanation will be given regarding the purpose of the study and all expectations for completion of the surveys will be given in approximately 3-4 minutes by the researcher. After all questions are answered, each participant will sign an informed consent. There will be no interaction between faculty members or the researcher after the surveys are started. Each survey will take approximately 15-20 minutes to complete. All surveys and consent forms will be collected and

stored in a locked filing cabinet in the researcher's office. Students will be reminded to maintain confidentiality about the surveys and the research project.

**C. Procedures: Provide a step-by-step description of each procedure, including the frequency, duration, and location of each procedure.**

The procedure for data collection will involve administering a 38-item survey questionnaire. The survey will be disseminated to undergraduate nursing students from several educational institutions during the first student nurse meeting of the school year via pencil and paper format. Requirements for the survey and special instructions will also be provided.

1. Faculty at Delaware State University (see attached approval letter from departmental chair) will inform and recruit full-time enrolled sophomore, junior and senior level nursing students for participation in this study using a script read to perspective the study subjects.
2. Signs will also be posted on nursing bulletin boards within the department.
3. Once all students are present during orientation, a brief explanation will be given regarding the purpose of the study and all expectations for completion of the surveys will be given in approximately 3-4 minutes by the researcher.
4. After all questions are answered, each participant will sign an informed consent. Discussion regarding confidentiality and proper data storage will be discussed.
5. There will be no interaction between faculty members or the researcher after the surveys are started.
6. Each survey will take approximately 15-20 minutes to complete.
7. All surveys and consent forms will be collected and stored in a locked filing cabinet. Students will be reminded to maintain confidentiality about the surveys and the research project.

**D. How will confidentiality of the data be maintained?**

It is important to keep in mind, as a researcher, to be free of any bias or prejudice. If some prejudice does exist among the study subjects or toward other cultures, this could potentially affect the results of the study (Creswell, 2014).

**E. Describe all known and anticipated risks to the subject including side effects, risks of placebo, risks of normal treatment delay, etc.**

There are no known or anticipated risks that have been identified for those participating in this study. This study is non-experimental and no treatment is to be rendered to any study subjects involved in this research.

**G. Describe the anticipated benefits to the subjects, and the importance of the knowledge that may reasonably be expected to result from the research.**

The goal of this research is to add to the current body of literature and provide tools that can be utilized by faculty, staff and university administration to increase student achievement among baccalaureate nursing students. This research may help nursing programs to consider enhancing

and implementing programming and supportive interventions to increase characteristics like self-efficacy and academic motivation to improve student achievement and success.

**H. Provide a copy(s) of the Letter of Approval from the attending/employed institution's IRB committee (*please see attached letter from DSU department chair*).**

**Additions or changes in procedures involving human subjects, as well as any problems connected with the use of human subjects once the project has begun, must be brought to the attention of the IRB - Human Subjects Protection Committee. Please visit http://www.desu.edu/forms-library-0 and download the Guidelines for a Writing Informed Consent.**

## II. SIGNATURES

### SECTION 1. FOR FACULTY / STAFF ONLY

**A. I certify that to the best of my knowledge the information presented herein is an accurate reflection of the proposed research project.**

**Principal Investigator (**Print Name**):**_____

(Faculty, Staff--Circle or **Bold** one.)

**Signature** _____ **Date** _____

**Co - Principal Investigator (**Print Name**):**_____

(Faculty, Staff--Circle or **Bold** one.)

**Signature** _____ **Date** _____

**B. Approval by Departmental Chair / Supervisor**

**I confirm the accuracy of the information stated in this application. I am familiar with, and approve of the procedures that involve human subjects.**

**Departmental Chair/ Supervisor**
**(**Print Name**):**_____

**Signature** _____ **Date** _____
**Departmental Chair/ Supervisor**

**C. Approval by Departmental Dean**

**I confirm the accuracy of the information stated in this application. I am familiar with, and approve of the procedures that involve human subjects.**
**Departmental Dean**
**(**Print Name**):**_____

**Signature** _____ **Date** _____
**Departmental Dean**

**SECTION 2. REQUIRED FOR ALL STUDENTS ONLY:**

**A. I certify that to the best of my knowledge the information presented herein is an accurate reflection of the proposed research project.**

**Principal Investigator (**Print Name):_____

**Signature:** _____**Date: 23 Aug 2016**
**Principal Investigator**

**Co - Principal Investigator/s (List Names)**
n/a

**B. Approval of Faculty Sponsor:**

**I affirm the accuracy of this application, and I accept the responsibility for the conduct of this research, the supervision of human subjects, and maintenance of informed consent documentation as required by the IRB - Human Subjects Protection Committee.**

**Faculty Sponsor (**Print Name**):**_____

**Signature** _____ **Date** _____
**Faculty Sponsor**

**C. Approval by Departmental Chair** and **Program Director**

**I confirm the accuracy of the information stated in this application. I am familiar with, and approve of the procedures that involve human subjects.**

**Departmental Chair**

**Department Chair (**Print Name**):** _____

**Signature** _____ **Date**_____
**Departmental Chair**

**Departmental Program Director**

**Department Program Director (**Print Name**):**_____

**Signature** _____ **Date**_____

**Departmental Program Director**

**[Required For Dissertation and Thesis Research]**

**D. Approval by Departmental Dean**

**I confirm the accuracy of the information stated in this application. I am familiar with, and approve of the procedures that involve human subjects.**
**Departmental Dean**

**(**Print Name**):**_____

**Signature** _____ **Date** _____
**Departmental Dean**

## Appendix G
## Participant Consent Form

**Principle Investigator: Nicole Bell Rogers RN, MSN, FNP-C**
**Title of Project: The Relationship between Self-efficacy and Academic Motivation on Student Achievement among Baccalaureate Nursing Students**

You are invited to participate in a research study that investigates the relationship between student's levels of self-efficacy, academic motivation and student achievement among baccalaureate nursing students. We hope to learn about how these factors can enhance student success and achievement among nursing students. You were selected as a possible participant in this study because you are a sophomore, junior or senior level-nursing student.

If you decide to participate, we will have you complete a 38-item questionnaire on academic motivation and self-efficacy. There are also some demographic questions that we ask that you complete prior to beginning the survey. Demographic questions are designed to help survey researchers determine what factors may influence a respondent's answers, interests, and opinions. The survey is designed to assess your level of self-efficacy and academic motivation as a student. This process should take approximately 20-25 minutes.

You will have no discomforts or inconveniences associated in completing the questionnaire. There are no risks expected. The benefits may be insights into your own personality, motivators and how you feel as a student about your own ability to succeed within your current nursing program. We cannot and do not guarantee or promise that you will receive any benefits from this study.

Confidentiality of records identifying your participation will be maintained. If you give us your permission by signing this document, data collected will be used for only this study. The data collection tools (self-efficacy and academic motivation scales and questionnaires) will be coded to protect your identity and will be shredded after final data analysis. There is no fee or services in lieu of a fee for participating.

Your decision whether or not to participate will not prejudice your future relations with Delaware State University. If you decide to participate, you are free to withdraw your consent and to discontinue participation at any time without prejudice.

Before you complete and sign this form, please ask questions on any aspect of the study that is unclear to you. If you have any questions, at a later date, Nicole Bell Rogers will be happy to answer them.. If at any time, you have questions concerning your rights as a research subject, you may call the Office of Sponsored Programs at Delaware State University.

**YOU ARE MAKING A DECISION WHETHER OR NOT TO PARTICIPATE. YOUR SIGNATURE INDICATES THAT YOU HAVE DECIDED TO PARTICIPATE, HAVING READ THE INFORMATIVE PROVIDED ABOVE.**

**I acknowledge that I have received a personal copy of this consent form. Copy received: _____**
**(Initial Here)**

_____ _____ _____
**Date** **Signature of Student/Participant** **Time AM/PM**

Signature of Investigator_____

## Appendix H

## Research Study Survey

1. What is your age? Please circle ONE.

   Less than 17 18-24 25-39 40-50 60+

2. What is your gender? Please Circle ONE.

   Male Female Other

3. What is your race? Please circle ONE.

   Black/African American Asian/Pacific Islander White/Caucasian

   Native American or American Indian Hispanic/Latino Other Race

4. What is your current GPA (Grade Point Average)? Please circle ONE.

   Less than 1.0 1.0-2.0 3.0-4.0 4.0 +

5. What is you current classification? Please circle ONE.

   Freshman Sophomore Junior Senior

***Directions****: The scale below is designed to determine how confident you are in performing a variety of difficult tasks and cope with diversity within your nursing program. Please read each behavior and circle the number that corresponds to how confident you are that you can perform well within your current nursing program. There are no right or wrong answers. Do not spend too much time on any one statement, but give the answer that seems to describe how you generally feel.* ***Your answers are confidential.***

*Scale:* Please use the scale below for the answer that BEST corresponds to your response*:*

| **Not at all true** | **Hardly true** | **Moderately true** | **Exactly true** |
|---|---|---|---|
| **1** | **2** | **3** | **4** |

1. I can manage to solve difficult problems if I try hard enough.

   1 2 3 4

2. If someone opposes me, I can find the means and ways to get what I want.

   1 2 3 4

3. It is easy for me to stick to my aims and accomplish my goals.

   1 2 3 4

4. I am confident that I could deal efficiently with unexpected events.

   1 2 3 4

5. Thanks to my resourcefulness, I know how to handle unforeseen situations.

1 2 3 4

6. I can solve most problems if I invest the necessary effort.

1 2 3 4

7. I can remain calm when facing difficulties because I can rely on my coping abilities.

1 2 3 4

8. When I am confronted with a problem, I can usually find several solutions.

1 2 3 4

9. If I am in trouble, I can usually think of a solution.

1 2 3 4

10. I can usually handle whatever comes my way.

1 2 3 4

***Directions:*** *Using the scale below, indicate to what extent each of the following items presently corresponds to one of the reasons regarding what academically motivates you as a nursing student. There are no right or wrong answers. Do not spend too much time on any one statement, but give the best answer that seems to describe how you feel.* ***Your answers are confidential.***

Scale: Please use the scale below for the answer that BEST corresponds to your response:

| **Does not correspond at all** | | **Corresponds a little** | **Corresponds moderately** | **Corresponds a lot** | | **Corresponds exactly** |
|---|---|---|---|---|---|---|
| **1** | **2** | **3** | **4** | **5** | **6** | **7** |

**I am motivated as a nursing student ……**

---

1. Because with only a high-school degree, I would not find a high-paying job later on.

1 2 3 4 5 6 7

2. Because I experience pleasure and satisfaction while learning new concepts related to nursing.

1 2 3 4 5 6 7

3. Because I think that a college education will help me better prepare for the career I have chosen in nursing.

1 2 3 4 5 6 7

4. For the intense feelings I experience when I am communicating my own ideas to others about nursing and health related ideas.

1 2 3 4 5 6 7

5. Honestly, I don't know; I really feel that I am wasting my time in trying to become a nurse.

1 2 3 4 5 6 7

6. For the pleasure I experience while surpassing myself in my studies within the nursing field.

1 2 3 4 5 6 7

7. To prove to myself that I am capable of completing my college degree, in nursing.

1 2 3 4 5 6 7

8. In order to obtain a more prestigious job, related to my current area of study, later on.

1 2 3 4 5 6 7

9. For the pleasure I experience when I discover new concepts, ideas and topics in nursing that I have never been exposed to before.

1 2 3 4 5 6 7

10. Because eventually it will enable me to enter the field I like (nursing).

1 2 3 4 5 6 7

11. For the pleasure that I experience when I read interesting authors, topics and related materials about nursing and the health profession.

1 2 3 4 5 6 7

12. I once had good reasons for going to college to become a nurse; however, now I wonder whether I should continue.

1 2 3 4 5 6 7

13. For the pleasure that I experience while I am surpassing myself in one of my personal accomplishments related to the nursing field.

1 2 3 4 5 6 7

14. Because of the fact that when I succeed as a nurse, I feel important.

1 2 3 4 5 6 7

15. Because I want to have "the good life" within the nursing field later on.

1 2 3 4 5 6 7

16. For the pleasure that I experience in broadening my knowledge about nursing subjects which appeal to me.

1 2 3 4 5 6 7

17. Because this will help me make a better choice regarding my career orientation in nursing.

1 2 3 4 5 6 7

18. For the pleasure that I experience when I feel completely absorbed by what certain authors have written related to the nursing field.

1 2 3 4 5 6 7

19. I can't see why I go to college and frankly, I couldn't care less about nursing.

1 2 3 4 5 6 7

20. For the satisfaction I feel when I am in the process of accomplishing difficult academic activities related to being a nurse and the nursing profession.

1 2 3 4 5 6 7

21. To show myself that I am an intelligent person.

1 2 3 4 5 6 7

22. In order to have a better salary later on within the nursing field.

1 2 3 4 5 6 7

23. Because my studies allow me to continue to learn about many things that interest me.

1 2 3 4 5 6 7

24. Because I believe that a few additional years of education will improve my competence as a worker especially within the nursing profession.

1 2 3 4 5 6 7

25. For the “high” feeling that I experience while reading about nursing.

1 2 3 4 5 6 7

26. I don’t know; I can’t understand what I am doing in school.

1 2 3 4 5 6 7

27. Because college allows me to experience a personal satisfaction in my quest for excellence within nursing.

1 2 3 4 5 6 7

28. Because I want to show myself that I can succeed in nursing.

1 2 3 4 5 6 7