Examining the Impact of Fear of Failure, Impostor Phenomenon, Academic Motivation, and Self-Efficacy on the Decision to Major in Nursing


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ABSTRACT
This study examined specific variables that are impactful on the decision for college undergraduate students to choose to major within the field of nursing. Variables included in this investigation were academic motivation, self-efficacy, fear of failure, and the impostor Phenomenon. This research studied how these variables have impacted undergraduate nursing students during their academic career at a small public university in the southern United States. There were a total of 115 (N=115) students who participated in the study. There were 53 (46.1%) pre-nursing majors, who are identified as students who had not yet been accepted into the university nursing program. The remaining 62 (53.9%) participants were nursing majors, which are students already admitted into the university nursing program. Of the 115 participants, 101 (90.2%) were females and 11 (9.8%) were males. Data analysis found that pre-nursing majors experience fear of failure and the Imposter Phenomenon more frequently than do nursing majors. However, nursing majors have higher academic motivation than pre-nursing majors. There was no significant difference between the two majors when it came to the self-efficacy factor. Overall, these results assist in better understanding some of the reasons students choose to major within the field of nursing.

Keywords
Nursing, Students, Academic motivation, Self-efficacy.

Introduction
Past research indicates that there are many variables that impact the decision for college students to major in nursing. Studies have also identified that there are many variables that influence the decision for students to leave the nursing major. Nursing is a very competitive and challenging field. Students who choose to major within the nursing field require dedication to regularly study and practice skills for clinical rotations. Because nursing can be a challenging major, variables impacting student major choice should be examined to learn and improve retention. This study examined how having fear of failure, feelings of the impostor phenomenon, individual levels of academic motivation, and personal self-efficacy can be impactful on both choosing to major in nursing, as well as remaining in the major after being accepted into a nursing program.

According to Yoshida et al. [1], motivation is one the most important psychological concepts throughout an individual’s education. Motivation leads to more positive learning outcomes, and this leads to more increased retention throughout higher education [2]. Furthermore, according to Rose [2], understanding the type of motivation nursing students use throughout their nursing program may be beneficial for educators and loved ones in order to assist students through the challenges of their nursing experience. This enhances self-efficacy, which is related to the construct of self-confidence, and influences academic success. It is also important for educators to understand the factors that enhance this academic motivation, so educators and loved ones are better able to avoid and identify factors that lead to low motivation [1].

One factor that influences an individual’s academic motivation is their personal feelings of self-efficacy. According to Albert Bandura, an individual’s self-efficacy refers to how a person views their own self and how they perceive their own capabilities [3-
Individuals may be so frightened to fail that they start avoiding situations where failure is a potential outcome, such as skipping a test instead of successfully studying [18]. These students are considered failure-avoidant, and as a result, they can fall further and further behind their classmates. Trying to learn with this barrier can be extremely difficult. These actions are considered to be very detrimental to their education, as well as hinder their abilities to be successful in their future careers. Overall, if educators are better able to identify these perceived dangers within the classrooms, students may be better able to cope with their fears and effectively learn the course material [15]. Additionally, if educators are better able to empathize and communicate within the classroom, this can help boost personal confidence levels of students, or self-efficacy, and reduce their fears. Research has shown that even the simplest interventions within the classroom can make the biggest difference, which can help to reduce classroom anxiety and promotes student engagement and performance [15]. This means that nursing educators and professors play a key role impacting the perception of the nursing field through professionalism and dedication to improvement [19].

Along with the variables of academic motivation, fear of failure, self-efficacy, and the imposter phenomenon, stress can be a large component of why nursing majors can have such a difficult journey throughout their nursing experience. According to Fink [20], stress is defined by the World Health Organization as an epidemic for the 21st century. Stress has been identified as a universal problem among nursing students. Often, these students have higher levels of stress when compared to the general population [21-23]. Nursing students also experience higher levels of stress when compared to other health disciplines. This is because they are exposed to great levels of pressure to optimally perform on a daily-basis [21-23]. During their nursing education, students are exposed to various stress factors that may hinder their performance, either directly or indirectly [24]. These factors may consist of academic stressors, clinical stressors, and personal or social stressors [25-27]. Academic stressors could be tests, clinical rotations, work load, and their individual fear of failure. Clinical stressors may include working, fear of making a mistake, and negative responses to the pain or death of a patient. Personal or social stressors may consist of financial issues and imbalance within the home, particularly between school and housework [21,25-27].

Method

Participants

The participants of this study consisted of pre-nursing and nursing majors who are currently attending classes at a small southern college campus. There were a total of 115 (N=115) nursing student participants. There were 53 (46.1%) pre-nursing majors who completed the survey. These are students who have not been accepted yet into the nursing program. The remaining 62 (53.9%) participants were nursing majors, identified as students who have already been admitted into the campus nursing program. Demographics show that the majority of participants were female, with a total of 101 (90.2%). The remainder identified as male with a total of 11 (9.8%). The identified race of the participants consisted of 82 (73.2%) Caucasians, 20 Black/African-Americans (17.9%),
6 Bi-Racial participants (5.4%), 2 Hispanic students (1.8%), one American Indian or Alaskan Native participant (0.9%), and one participant of other race or origin (0.9%). Overall, only 3 (2.6%) participants left their gender and ethnicity questions unanswered on the survey.

**Instruments**

**Demographic Questionnaire**

The demographic questionnaire consisted of multiple items including questions about individual sex/gender, current age, current education level, sexual orientation, and ethnicity/race. In addition, test scores from the American College Testing (ACT) and Scholastic Assessment Test (SAT) were asked to be included by each participant. The participants were further asked to disclose their cumulative GPA (grade point average). The demographic questionnaire also inquired about whether each participant was classified as a pre-nursing or nursing student.

**The Performance Failure Appraisal Inventory (PFAI)**

The Performance Failure Appraisal Inventory [28,29] is a 25-item multidimensional measure of cognitive-emotional-relational appraisals associated with fear of failure [29]. The PFAI was originally a 41-item inventory that has been made into two shorter versions, including a 25-item and a 5-item version (PFAI-S). The present study used the 25-item inventory. The PFAI identifies five aversive consequences that are associated with fear of failing [28]. Each item on the PFAI begins with either of two question stems, When I am failing... or When I am not succeeding... that is followed by a perceived failure consequence that is potentially aversive to the individual [30]. The PFAI includes five undesirable consequences of failure. These are the following: Fears of Experiencing Shame and Embarrassment (FSE), Fears of Devaluing One’s Self-Estimate (FDSE), Fears of Having an Uncertain Future (FUF), and Fears of Upsetting Important Others Losing Interest (FIOLI), and Fears of Upsetting Important Others (FUIO). Cronbach’s alpha was determined to have an alpha of .81. The lowest alpha was found to be .74 for the subscale of Fear of Devaluing One’s Self-Estimate (FDSE).

**General Self-Efficacy Scale (GSE)**

The General Self-Efficacy Scale [32] was originally created in Germany, but it has since been adapted for use worldwide. The GSE has been translated into multiple languages [33]. The scale had been translated into 28 different languages by the year 1995 [34]. The instrument has been translated for various foreign languages using version from German and English [35]. A “group consensus model” for translating was utilized for back-translation and considerations [36]. The GSE consists of 10 survey items that range in responses from 1.) Not at all true, 2.) Hardly true, 3.) Moderately true, and 4.) Exactly true. Sherer et al. [32] identifies some question examples to include, Thanks to my resourcefulness, I can handle unforeseen situations and I can always manage to solve difficult problems if I try hard enough. The range for scores is from 10 to 40 [32]. The GSE has been determined to have good stability, adequate construct validity, and high reliability [34,37]. According to research, the GSE has been recognized as being “configurally equivalent” in 28 different countries [37]. This configurally equivalent recognition is in effect while comprising only one universal and global factorial component [35,37].

**Imposter Phenomenon Scale (CIPS)**

The Clance Imposter Scale [12] is an instrument created following the identification of a population of individuals who did not self-perceive themselves as successful, even though each had significant external success [11]. The questionnaire was originally created for use with women, but is now recognized as valid with males and females. The instrument consists of 20 self-administered items that assess individual beliefs including fear of failure, fear of being negatively evaluated, and fear that the individual will be unable to achieve the expectations of other individuals. These individuals regularly attribute their accomplishments and success to instances of luck instead of their own assets and capabilities [12]. The questionnaire utilizes a 5-point Likert-type scale (α = .92) [38], with higher scores on the CIPS indicating higher levels of experiencing the imposter phenomenon [12]. Total score results range from 20 to 100. Both clinical and non-clinical population samples have been validated for use with CIPS. The reliability alpha coefficients range from .84 to .96 [39,40].

**Academic Motivation Scale (AMS) College Version**

The Academic Motivation Scale College Version (AMS) survey measures three variables of academic motivation [41]. The AMS is a twenty-eight-item scale that is used to examine why students go to college. The seven subscales [42] consist of three extrinsic-motivation subscales, and three intrinsic-motivation subscales. There is also one amotivation subscale. Evaluation of the AMS determined that the scale meets validity criteria to measure extrinsic motivation, intrinsic motivation, and amotivation [43]. The instrument is scored on a 7-point Likert-type scale that has four survey items comprising the individual subscales. Higher scores represent stronger endorsements of that particular motivation [43]. A composite motivation score is then calculated for each subscale of intrinsic motivation, extrinsic motivation, and amotivation by the averaging of the score of all items of the subscales within each category. The intrinsic motivation (IN)
Students who are currently in the nursing program were hypothesized to be more likely to experience fear of failure when compared to pre-nursing majors. The findings for the independent sample t-tests show there was five significant differences on the fear of failure scale between the two majors. This means that five fear of failure questions had a \( p < .05 \). To begin, all the participants answered a question about, “When I am not succeeding, then people seem to want to help me less”, the pre-nursing majors reported a higher mean, \( M = 2.42 \), than nursing majors, \( M = 1.89 \). This question reported a \( p = .045 \), which showed a significant difference between the two majors. Another question asked participants, “When I am failing, important others are disappointed.” For this question, the pre-nursing majors reported a slightly higher mean, \( M = 2.77 \), than nursing majors, \( M = 2.11 \). This question reported a \( p = .007 \), which indicates a significant difference between the two majors. Furthermore, another question asked participants, “When I am failing, I believe that my doubters were right about me”, the pre-nursing majors reported a higher mean, \( M = 2.62 \), than nursing majors, \( M = 1.92 \). This question reported a \( p = .011 \), showing a significant difference between the two majors. Lastly, a question asked participants, “When I am failing, I worry that others may think I am not trying.” For this question, the pre-nursing majors reported a higher mean, \( M = 3.21 \), than nursing majors, \( M = 2.63 \), with a \( p = .019 \). Thus, this showed a significant difference between the two majors. The pre-nursing majors showed a higher mean, \( M = 3.64 \), than nursing majors, \( M = 3.16 \). This question reported a \( p = .042 \), showing a significant difference between the two majors. The next question, all participants answered a question about, “Sometimes I am afraid others will discover how much knowledge or ability I really lack.” For this question, the pre-nursing majors reported a higher mean, \( M = 2.96 \), than nursing majors, \( M = 2.48 \). This question reported a \( p = .006 \), which showed a significant difference between the two majors. However, when participants were asked about, “Often succeeding on a test or task even though I was afraid I would not do well”, the nursing majors reported a higher mean, \( M = 4.24 \), than pre-nursing majors, \( M = 3.92 \). This question reported a \( p = .032 \). These findings suggest that pre-nursing students, which are students who have not yet been accepted into the nursing program, experience imposter phenomenon more than nursing students who are already accepted into the nursing program.
higher academic motivation following their acceptance into the program. The findings indicate there were nine significant differences on the academic motivation scale between the two majors. This means that nine academic motivation questions had a p < .05. To begin, all participants answered a question about, “I go to college for the pleasure and satisfaction I experience while learning new things.” For this question, the nursing majors reported a higher mean, M = 5.85, than pre-nursing majors, M = 4.91. This question reported a p = .000, showing a significant difference between the two majors. Next, all participants answered a question about, “I go to college for the pleasure I experience while surpassing myself in my studies,” with the nursing majors reporting a slightly higher mean, M = 4.77, than pre-nursing majors, M = 4.11. This question reported a p = .039, showing significance. Next, participants answered a question about, “I go to college for the pleasure I experience when I discover new things I have never seen before.” Nursing majors reported a higher mean, M = 5.61, than pre-nursing majors, M = 4.91. This question showed to be significant, with a reported p = .007. The next question that all participants answered was a question about, “I go to college for the hope it will eventually enable me to enter the job market in a field that I like.” Nursing majors reported a slightly higher mean, M = 6.74, than pre-nursing majors, M = 6.36, with a p = .028. This showed a significant difference between the two groups. The next question answered, “I go to college for the pleasure I experience while I am surpassing myself in my personal accomplishments” resulted in the nursing majors having a higher mean, M = 5.55, than pre-nursing majors, M = 4.96. This question reported a p = .034, which showed a significant difference. Next, all participants answered a question about, “I go to college for the pleasure I experience in broadening my knowledge” with the nursing majors reporting a slightly higher mean, M = 5.94, than pre-nursing majors, M = 5.25. This question reported a p = .007, which identified significance. To continue, all participants answered a question about, “I go to college because it will help me make a better choice regarding my career.” These results indicated that the nursing majors exhibited a higher mean, M = 6.34, than pre-nursing majors, M = 5.83. This question reported a p = .017, which was again found to be significant between the groups. The next question answered, “I go to college because I believe a few additional years of education will improve my competence as a worker”, resulted in nursing majors reporting a higher mean, M = 6.10, than pre-nursing majors, M = 5.38. This question reported a significant difference, p = .006. Lastly, all participants answered a question about, “I go to college for the high feeling that I experience while reading about various interesting subjects.” For this question, the nursing majors reported a higher mean, M = 3.90, than pre-nursing majors, M = 2.94. This question reported a significant difference, p = .004. Overall, these findings suggest that nursing students who have already been accepted into the nursing program have higher academic motivation than pre-nursing students. Lastly, pre-nursing students were hypothesized to have higher self-efficacy when compared to students in the nursing program. However, result findings indicated there was not a significant difference between the two majors. The p values were all greater than .05 (p > .05) for the self-efficacy questions, indicating no significant difference to be found between the two groups.

Discussion
This study investigated potential variables that are impactful when choosing to major within the field of nursing. Results indicate that pre-nursing students, or those students who have not been accepted yet into the nursing program, experience fear of failure more than nursing students who are already accepted into the nursing program. Fear of failure is often the result of having fears of not achieving or attaining a goal. There are a multitude of possible reasons that pre-nursing students experience higher levels of fear of failure than their nursing student counterparts. One potential reason is that since pre-nursing majors have not yet been accepted into the nursing program, their individual fears of failing are higher that they may not be allowed to be admitted into the nursing program or because they have not yet been allowed to continue in the nursing coursework, the pre-nursing students envision it as a task that is insurmountable. These anxiety could intensify and exacerbate innate feelings of fear of being unsuccessful in their future nursing program. The impostor phenomenon is identified as the feeling that a person experiences when they believe that they are a fraud or an impostor and only attained their success due to “luck” or knowing the right people [11]. In this research study, pre-nursing majors reported higher levels of impostor phenomenon feelings. Because pre-nursing majors have not yet completed nursing clinicals or completed nursing coursework, their feelings may stem from not having experience at being successful as a nursing student. Therefore, because their experiences are limited, internally, pre-nursing majors may be experiencing anxiety that others may learn that they are not as educated or as smart as their peers. Conversely, because students who are in the nursing program are exhibiting success at taking exams, learning medical procedures, and progressing toward their goal of being a nurse, the nursing major students may experience fewer feelings of being an impostor.

Findings from this study indicate that nursing students in the nursing program have higher academic motivation than pre-nursing students. One likely reason for the higher levels of academic motivation for students in the nursing program is that these students understand that if they are unsuccessful, they will not be allowed to continue in the nursing program. These students are invested in the program; they understand that their performance is directly related to their future in remain as a nursing student. Because of this understanding, it is likely that their academic motivation is strengthened making these students have greater desire to achieve their academic goals.

There are limitations to this particular study. Ideally, the research sample would have had more diversity. Specifically, the research sample consisted of a majority of Caucasian females. The study consisted of 101 female participants (90.2%), with 82 of those participants being Caucasian (73.2%). Having more males within the study would have more desirable, as there were only 11 male participants, which comprised only 9.8% of the sample. The
study consisted of 53 (46.1%) pre-nursing majors and 62 (53.9%) nursing majors. Preferably, the study would have had a more even ratio of nursing and pre-nursing majors. Future research will need a larger population sample for data collection as the current study only had 115 participants. Despite these limitations of this investigation, these results have value in aiding our understanding of the potential variables that influence whether a student will choose to major and pursue a future career in the nursing field.

References


