

Admissions Criteria That Best Predict Which Applicants Will Successfully Enter the Nursing Profession

by Marlene F. Kellner Ed.D., RN

Abstract

Currently, a school of nursing in the Northeastern United States is using the Test for Essential Academic Skills (TEAS) examination to help determine which applicants to accept into their nursing programs. To date, there are no statistically significant data to correlate the use of this exam with the selection of applicants who successfully enter the nursing profession. Due to the nursing shortage, limited number of seats available in nursing programs, low nurse retention, and high nursing school attrition rates, it is necessary to use an admissions process designed to select the candidates who are most likely to enter into the nursing profession. The responses to a 33-item survey administered to nurses who graduated from this school of nursing between the years of 2012-2018 (N = 242) provided insight. The responses indicated the most prominent, self-reported, common traits of participants who had successfully entered the nursing profession were that they: have good judgment, are ethical in nature, are professional, complete what they start, admit to their mistakes, are intrinsically motivated, are self-directed, and have a sense of spiritual well-being. A confirmatory factor analysis and latent class analysis were conducted and did not provide additional insight. Additional in-depth research needs to be conducted to validate this quantitative survey for use as a screening tool by admissions officers.

Background

Due to the nursing shortage (American Association of Colleges of Nursing [AACN], 2019), low retention rates in nursing, high attrition rates in nursing schools, and lack of available seats in nursing programs (AACN, 2019) the need to select applicants who are likely to ultimately enter into the nursing profession is more important now than had been in the past.

Although prior research was located that identified grade point averages (GPAs) (Elkins, 2015; Ortega, Burns, Hussey, Schmidt, & Austin, 2013; Romeo, 2013; Schripsema, Trigt, Borleffs, & Cohen-Schotanus, 2014), Standardized Assessment Scores Health Education System Inc. (HESI) (Elkins, 2015), HESI Admission Assessment (Chen & Voyles, 2013), as well as transfer credits

(Simon, McGinnis, & Krauss, 2013) as predictors of student success, these criteria were not utilized as nursing program admissions criteria in the programs presented in this study. Therefore, this study provided new research for which there had previously been a gap in the available literature. This exploratory, hypothesis generating study presented a new perspective by analyzing the statistical correlation between various admissions criteria and applicants actually entering the nursing profession.

Theoretical Framework

This study was developed upon the structural underpinnings of the triarchic theory of successful intelligence (Sternberg, 1997), the adult learning theory (Knowles, 1996), the theory of self-efficacy (Bandura, 1994), and the theory of achievement motivation (Atkinson, 1964). These theories were used in combination with a comprehensive literature review in order to develop the survey items used in this study. Because there had not yet been an instrument created for predicting which applicants would ultimately enter into the nursing profession, it was important to use these theories to design a survey that was grounded in theory and would potentially yield valuable information.

Triarchic Theory of Successful Intelligence

Every person possesses a blend of analytical, creative, and practical abilities. Academic institutions often only recognize analytical skills during the admissions process (Sternberg, 1997). However, creative and practical skills can be more useful in real-world settings, helping to spark innovation in the workplace (Sternberg, 1997). Creative and practical skills are necessary in order to thrive in the nursing profession. It is not sufficient for nurses to obtain concrete knowledge, and memorize factual information. Rather, nurses need to be able to apply knowledge in an ever-evolving clinical setting. In order to enter the profession of nursing, nurses require successful intelligence. In other words, these individuals need to recognize and capitalize on their strengths in areas of intelligence, and correct or compensate for their weaknesses (Sternberg, 1997).

To this end, college admissions officers need to be able to measure creative and practical skills grounded in psychological theory. This way, admissions officers can assess an applicant's full range of skills, and better predict who will be successful in college, and later enter into the nursing profession. Many applicants seeking admissions into nursing programs present with a variety of personal, professional, and educational backgrounds. It may be beneficial to schools of nursing to provide these applicants with credit for these strengths and abilities.

Adult Learning Theory

Adult learners are not willing to commit themselves to learning something until such time that they discover the reason why it should be learned (Knowles, 1996). There must be some gain for learners to invest their efforts, and conversely, some loss for their not learning the material. Therefore, when dealing with adult learners, such as nursing students, it must be directly shown how the adult learner will profit from the investment, or suffer from the lack of investment. Once adult learners perceive a requirement to learn, they become motivated to learn (Knowles, 1996). Adult learners can be motivated by extrinsic factors such as professional advancement and monetary gain (Knowles, 1996). However, the stronger motivational factors are intrinsic (Knowles, 1996). These factors include improved self-image, increased duties, and reaching goals.

Adult learners arrive with the ability to be in control of themselves. Therefore, they have a need to be self-directed, and viewed by others as being responsible and in charge (Knowles, 1996). As such, it is imperative that various options for learning are offered. Adult learners also come equipped with a preexisting knowledge base. New thoughts and expertise can enhance this knowledge base, and when a strong relationship is created between the preexisting and newfound knowledge, the learning will be long lasting (Knowles, 1996). Bearing this in mind, it is crucial to allow adult learners, such as those found in nursing programs, to include their past experiences with the new information they are gaining, in order to optimize the learning experience.

Theory of Self-Efficacy

Bandura (1994) wrote that people who have a strong sense of self-efficacy, face difficulties as challenges that are able to be mastered, rather than threats that need to be avoided. Further, people who have confidence in their abilities will seek out challenges and will firmly commit to mastering them. In the event of failure, these individuals recover quickly, identify the knowledge needed to succeed, and try harder going forward. Ultimately, these behaviors and beliefs lead to increased accomplishments, reduced stress, and reduced probability of depression.

Having a strong sense of self-efficacy is a valuable attribute for a nursing student to possess, due to the rigor of the program, and challenges these students will

likely face. One develops beliefs regarding his/her own self-efficacy in four ways (Bandura, 1994). However, the most effective way is by having personal experience in successfully accomplishing challenging tasks. This information is important in terms of admissions, in that applicants who have, for example, already earned a baccalaureate degree, will likely have an increased sense of self-efficacy because they have already accomplished a challenging task. Similarly, a person who has experience as an army medic may also have a heightened sense of self-efficacy for the same reason. With these examples in mind, admissions officers need to consider these factors when giving weight to admissions criteria.

Theory of Achievement Motivation

The theory of achievement motivation (Atkinson, 1964) is composed of seven postulates and their implications. The first postulate involves one's tendency to engage in an achievement-oriented activity, the incentive value of success in that activity, and the probability of successfully completing that activity. Individuals may be motivated to perform at a high level if there is sufficient enticement, and they feel that they have the ability to complete the task successfully. The second postulate suggests the incentive value of an achievement task is equal to the complement of the probability of success. Thus, the incentive to complete a task successfully carries the same weight as the probability of failing to complete the task successfully. The third postulate, which also deals with failure, suggests that one's tendency to avoid engaging in a task that may result in failure is impacted by one's motivation to avoid failure, as well as the consequences of the failure, and the probability of the failure. In the same vein, the fourth postulate suggests that the incentive value of failure is equal to the negative of the probability of success. Therefore, individuals consider how a failure will impact them as strongly as they consider the probability of their successful completion of a task.

In terms of motivation to engage in a task, the fifth postulate suggests that individuals tend to engage in tasks based upon the sum of: their tendencies to engage in an achievement task; their tendencies to avoid engaging in a task that might result in failure; and other extrinsic motivational tendencies. Hence, if the result is that individuals engage in tasks, it is due to a combination of their tendencies, and not a single factor. Therefore, situations that are attractive to approach-motivated individuals will not be attractive to avoidance-motivated subjects (Revelle & Michaels, 1976). Also addressing motivation, the sixth postulate, suggests that the motivation generated by an ultimate goal, is the culmination of the motivations generated by each separate sub-goal (Revelle & Michaels, 1976). Therefore, for positively motivated individuals, the most motivating task is one of intermediate difficulty. Lastly, the seventh postulate suggests that the tendency to engage in an achievement-oriented task will persist until the task is successfully completed (Atkinson, 1964). Individuals who demonstrate persistence will try to complete a task until such time that they are successful in doing so.

These seven postulates describe the tendencies individuals possess which determine whether or not they will be motivated to engage in, and successfully complete achievement-oriented tasks. This theory is useful in nursing programs where student engagement and motivation are necessary to achieve positive student outcomes.

Methodology and Study Participants

This study was designed to determine which admissions criteria best predict nursing program applicants who will ultimately enter into the nursing profession. The results of the anonymous, voluntary, online survey addressed this question. A confirmatory factor analysis (CFA) was used to assist in determining which survey questions did not significantly relate to their latent categories, and these items were excluded from the subsequent Latent Class Analysis (LCA). Next, a 2, 3, and 4-class LCA verification was conducted on the survey split samples, and was used to help determine appropriate class selection for the final LCA. The final LCA described the class profiles of individuals who would ultimately enter into the nursing profession.

The 242 participants in this study were individuals who had graduated from an associate degree nursing program at a community college in the Northeastern United States between 2012 and 2018. Any individual who had graduated from this nursing program during this time period, and passed the NCLEX-RN was eligible to complete the survey. There were no other qualifying criteria necessary.

Data Collection and Instrumentation

One goal of this study was to develop an instrument which would be able to predict whether or not a nursing program applicant would ultimately enter into the nursing profession. Until now, no instrument had been created which utilized the theoretical framework and literature review contained in this study. The URL link to the confidential, anonymous, online survey was emailed to avoid personal contact between the participants and the researcher.

The survey was based upon the theoretical underpinnings of the study and a review of available literature. The purpose of the survey was to develop a profile that described the characteristics of an individual who possessed the skills and abilities necessary to successfully enter into the nursing profession. The survey, administered through Survey Monkey (www.surveymonkey.com), contained an informed consent, and 33 items the participant responded to with either a "yes" or "no" and one qualitative, free-text question. Of the 33 items on the survey, six items were demographic, five were related to the triarchic theory of successful intelligence (Sternberg, 1997), two were related to a combination of the triarchic theory of successful intelligence and the literature review, three were related to the theory of self-efficacy (Bandura,

1994), three were related to the adult learning theory (Knowles, 1996), two were related to the theory of achievement motivation (Atkinson, 1964), 11 were related to the literature review, and one qualitative item asked why the participant wished to become a nurse.

Demographic Data of Participants

In order to gain insight about their responses on the survey, demographic data were collected from the nursing department regarding the participants' gender, ethnicity, highest degree earned, employment status, and whether or not they were the first generation in their families to attend college. The averages of those data collected for each campus and program were calculated. On average, the student body consisted of 74% females and 26% males. The ethnicity of these students was 69% White, 11% Black, 15% Hispanic, 3% Asian, 1% Pacific Islander, 1% Native American, and 1% other. Regarding their highest degree earned prior to enrolling in the nursing program, 27% had earned an associate degree, 17% had earned a baccalaureate degree, 20% had earned a master's degree, 22% had earned a technical degree, and 14% had not earned a prior degree. After graduation, 87% were employed, and were working an average of 32 hours per week. Overall, 61% were the first members of their families to attend college.

Findings

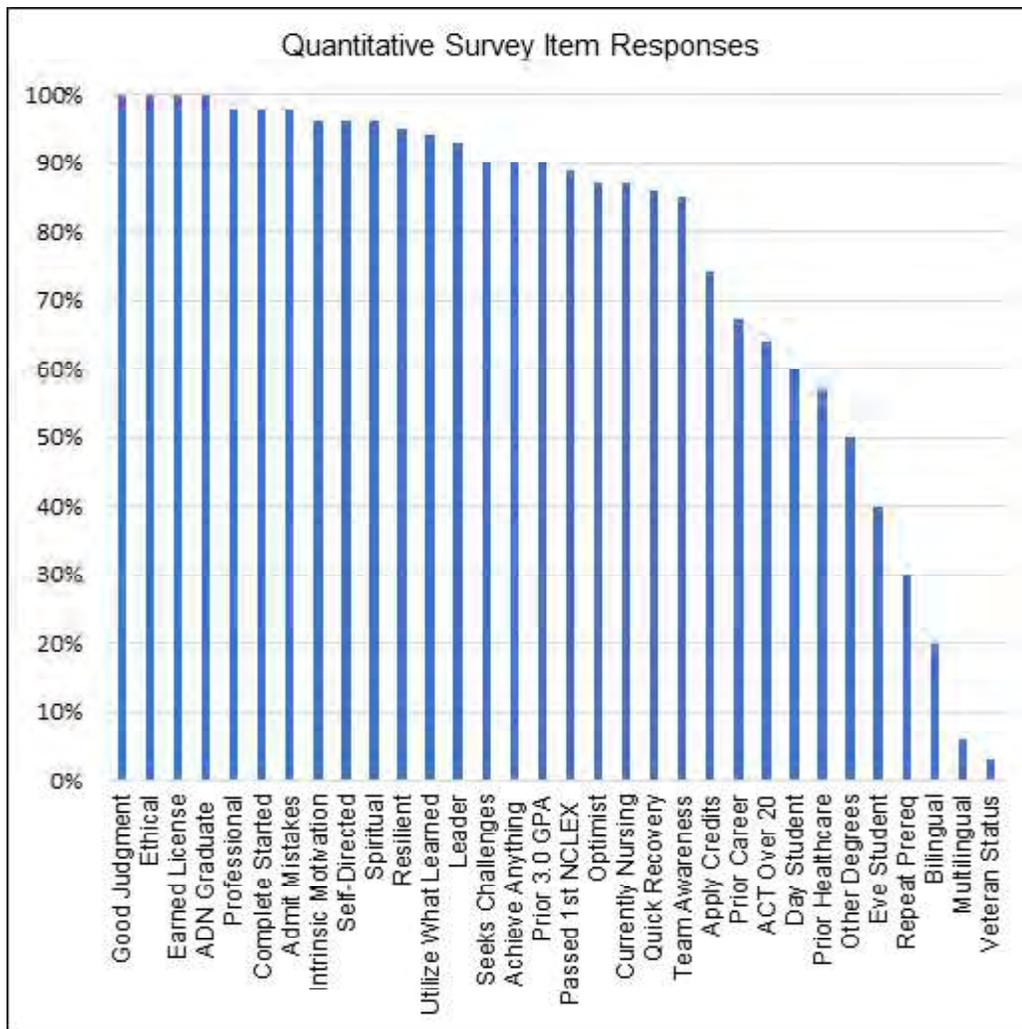
This study suggests admissions criteria that best predicted which applicants will enter into the nursing profession were self-reports from nurses that they: had good judgment, were ethical in nature, were professional, completed what they started, admitted to their mistakes, were intrinsically motivated, were self-directed, and had a sense of spiritual well-being. Ninety-six to 100% of the nurses who responded to this survey self-reported having these traits/ideals.

The demands placed upon nurses cannot be overestimated. Nurses are required to possess an enormous amount of knowledge pertaining to pharmacology, pathophysiology, treatment options, interventions, symptomology, and the like which exist over the lifespan from birth to death. Therefore, it is increasingly necessary to choose applicants who have traits/ideals that reach beyond what a basic aptitude test may reveal. Applicants, who self-report possessing nonacademic traits that are reflective of the traits successful nurses possess, need to be considered for admissions prior to those applicants who only demonstrate academic strengths (see Figure 1).

Conclusion

This study highlights the importance of filling limited nursing program seats with applicants who are most likely to enter into the nursing profession. Other disciplines also struggle with applicant selection, and many different methods of choosing applicants exist. Due to the nursing

Figure 1. Bar chart of summary of quantitative item responses.



shortage and high turnover rate of nurses, there is a dire need to create an effective admissions process for these nursing programs.

As a result of this study, it has become even clearer that a holistic admissions process is needed in nursing programs. As can be seen by the results of the survey, nurses who successfully entered into the nursing profession shared like traits/ideals. The most prominent traits/ideals included: having good judgment, being ethical, being professional, having a desire to complete projects, admitting their mistakes, being intrinsically motivated, self-directed, and having a sense of spirituality. Although the LCA did not generate additional insight, these commonalities were derived from survey response probabilities that were similar among all three groups. Additional in-depth research needs to be conducted to validate the survey for use as a screening tool by admissions officers.

Implications for Policy and Practice

The quantitative survey administered in this study provided valuable insight regarding what factors can be considered in an effective holistic review of nursing program applicants. The study should be replicated with a practical nurse program and with other health related academic programs. Academic Testing Institute (ATI) is currently looking into similar data sets to inform admissions professionals.

Future studies might add a qualitative component to see if professors agree with the graduates' self-assessments regarding their own traits/ideals. I recommend that future nursing school admissions processes take noncognitive skills, or traits/ideals, into account to maximize the acceptance of students who will be likely to ultimately enter into the nursing profession.

References

- American Association of Colleges of Nursing. (2019). *Nursing shortage*. Retrieved from <https://www.aacnnursing.org/Portals/42/News/Factsheets/Nursing-Shortage-Factsheet.pdf>
- Atkinson, J. W. (1964). *An introduction to motivation*. Princeton, NJ: VanNostrand.
- Bandura, A. (1994). Self-efficacy. In V. S. Ramachandran (Ed.), *Encyclopedia of human behavior* (Vol. 4, pp. 71-81). New York: Academic Press. (Reprinted in H. Friedman [Ed.], *Encyclopedia of mental health*. San Diego: Academic Press, 1988).
- Chen, S., & Voyles, D. (2013). HESI admission assessment scores: Predicting student success. *Journal of Professional Nursing*, 29(2), 32-37. doi:10.1016/j.profnurs.2012.06.008
- Elkins, N. (2015). Predictors of retention and passing the national council licensure examination for registered nurses. *Open Journal of Nursing*, 05, 218-225. doi:10.4236/ojn.2015.53026
- Knowles, M. (1996). *Adult learning*. In Robert L. Craig (ed.) *The ASTD training and development handbook* (pp. 253-264). NY: McGraw-Hill.
- Ortega, K. H., Burns, S. M., Hussey, L. C., Schmidt, J., & Austin, P. N. (2013). Predicting success in nurse anesthesia programs: An evidenced-based review of admission criteria. *American Association of Nurse Anesthetists*, 81, 183-189.
- Revelle, W., & Michaels, E. J. (1976). The theory of achievement motivation revisited: The implications of inertial tendencies. *Psychological Review*, 83(5), 394-404. doi:10.1037/0033-295x.83.5.394
- Romeo, E. M. (2013). The predictive ability of critical thinking, nursing GPA, and SAT scores on first-time NCLEX-RN performance. *Nursing Education Perspectives*, 34(4), 248-253. doi:10.5480/1536-5026-34.4.248
- Schripsema, N. R., Trigt, A. M., Borleffs, J. C., & Cohen-Schotanus, J. (2014). Selection and study performance: Comparing three admission processes within one medical school. *Medical Education*, 48, 1201-1210. doi:10.1111/medu.12537
- Simon, E. B., McGinnis, S. P., & Krauss, B. J. (2013). Predictor variables for NCLEX-RN readiness exam performance. *Nursing Education Perspectives*, 34(1), 18-24. doi:10.5480/1536-5026-34.1.18
- Sternberg, R. J. (1997). *Successful intelligence: How practical and creative intelligence determine success in life*. New York: Penguin Group.



Marlene F. Kellner Ed.D., RN, is a full-time faculty member at SUNY Suffolk County Community College, School of Nursing, Long Island, New York.

2019-2020 SCOPE Directories

Order yours now:

1. SCOPE **Directory of Suffolk County Public Schools**, including Educational Associations, Organizations and Unions serving Long Island \$22.00
2. SCOPE **Directory of Private and Parochial Schools** on Long Island \$12.00
3. SCOPE **Directory of Mid-Hudson Public Schools** \$20.00
4. **Nassau County Public Schools** \$15.00
5. SCOPE **Directory of Capital Region Public Schools** \$22.00

For information on ordering and discounts, call (631) 881-9646, or email jmilillo@scopeonline.us, or download the order form at www.scopeonline.us/publications. *Note: Prices shown do not include 8.625% NYS sales tax or postage and handling.*