USE OF THE HESI ADMISSION ASSESSMENT (A2) AS A TOOL FOR PREDICTING ASSOCIATE DEGREE NURSING STUDENT SUCCESS, PART 2

Abstract:

Purpose: In an effort to improve student retention, faculty explored a new admission process for a predictor to student success and initiated a longitudinal study to determine whether or not a correlation exists between A2 scores and completion of the program within two years. Faculty were also interested in whether or not admission scores were predictive of HESI E2 scores.

Methods: In 2013 a longitudinal descriptive design was used to assess the value of the A2 in predicting student success in entry level nursing courses. The sample consisted of 85 students who took the A2 upon admission. Expanded study examines whether or not a correlation exists between A2 admission scores and successful completion of the program within two years. Additional investigation also reviews any relationship between student A2 and HESI E2 scores.

Results: In the initial study students' cumulative A2 scores were significantly positively correlated with both (100%) of the first semester nursing course grades (r = 0.275-0.343; p = .05). For completers only, the A2 cumulative, reading comprehension and math A2 scores were significantly positively correlated with the first nursing theory course grade (r = 0.312-0.441; p = .05-.01). Expansion of this study with 79 newly admitted students noted positive correlation of reading comprehension (r = 0.181; p = 0.000) and math A2 scores (r = 0.155; p = 0.00) with graduation from the program in two years. Furthermore a positive correlation was found between A2 math scores and HESI E2 scores (r = 0.128; p = 0.000) and a negative correlation was found with reading comprehension scores (r = -0.261; p = 0.00).

Implications: A2 math and reading comprehension scores can be used at admission to identify future at-risk students and initiate early remedial interventions to enhance retention and successful completion of the program.

Conclusion: Positive correlations in both reading comprehension and math A2 scores can be made with graduation from the program in two years. Math scores are positively correlated to HESI E2 scores. Use of these tools and ongoing analysis of results should be continued yearly to evaluate their predictive value for timely student graduation and successful completion of the program.

Background:

In 2012, the School of Nursing began utilizing the HESI A2 as part of the admissions process. Previously, students were ranked according to their GPA and considered only upon completion of all prerequisite courses. The addition of the A2 was predicated on findings that support using multiple factors when selecting students for admission to nursing programs. Students were required to complete the A2 in math and reading comprehension. A formula of overall GPA, prerequisite GPA, number of co-requisites completed and A2 scores was used to rank applicants.

Problem:

Using a multifactorial admission formula 79 students were selected to 3 AASN concurrently administered satellite programs in Northcentral, Central and East Arkansas. Of those selected who began the program in January of 2013, 30 students (39%) graduated within 2 years in December of 2015. The majority of student failures occurred in the first year courses which include introductory foundational courses and an initial medical-surgical theory course. Students were offered the opportunity to return to the program and retake courses in which they were unsuccessful resulting in a delay of graduation of one year. Statistically students returning to a nursing program following failure have a diminished chance of successful completion. Retention in the first year is imperative to enhance the likelihood of program completion and fill the estimated 711,900 nursing positions needed by 2020.

Results of a Paired Samples Test:

1. Positive correlation between A2 Reading Comprehension scores and graduation within 2 years.
2. Positive correlation between A2 Math scores and graduation within 2 years.
3. Positive correlation between A2 Math scores and scoring above 900 on the HESI E2.

Recommendations:

- Continued use of the A2 Reading Comprehension and Math assessments is predictive of successful completion of this Associates Degree in Nursing program within two years which fosters more accurate selection of students who have the potential to finish the program and move into the workforce. Student financial burden is also decreased through prompt matriculation.
- It is essential that students accepted into the program with low A2 scores be identified as “At Risk” and informed of these statistics. Integration of study skill lessons along with theoretical nursing content remediation should be made available throughout the curriculum to enhance retention. Close oversight by faculty advisors is imperative for students who meet these criteria.
- Use of the A2 Math assessment is predictive of scoring at or above 900 on the HESI Exit which is associated with first attempt passage on NCLEX. The School of Nursing requirement of completion of an accredited NCLEX review course if 900 is not earned on this assessment should be continued. Recognition of these students allows for focused advising to include increased completion of NCLEX style questions.
- Annual repetition of this study should include admission formula factors to determine their relationship on program success.

References:


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