PREDICTING STUDENTS’ ACADEMIC AND LICENSURE SUCCESS: A REVIEW OF METHODS FOR HIGH-STAKES FACULTY DECISION MAKING

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THE FAIR TESTING IMPERATIVE IN NURSING EDUCATION: A LIVING DOCUMENT FROM THE NATIONAL LEAGUE FOR NURSING NLN BOARD OF GOVERNORS

• Currently in review for update
• Addresses the use of standardized tests
• “It is the prevalent use of standardized tests to block graduation or in some other way deny eligibility to take the licensing exam that is most concerning to the NLN.”
• Why?
WHAT KINDS OF DECISIONS ARE WE MAKING?
THE HIGH-STAKES STUFF IS DICHOTOMOUS

• Admission: Yes or No
• Courses: Pass or Fail
• Graduation: Yes or No
• NCLEX: Pass or Fail
TRUE OR FALSE

• Most commercially available standardized tests are precise at identifying the likelihood of failing NCLEX.
FALSE

• High stakes decisions based on a cut score

• AERA, APA, NCME Standards for Educational and Psychological Testing

• Ask for (and read) your standardized test’s position on high stakes testing
WHO IS LIKELY TO FAIL THE NCLEX?
TWO KEY QUESTIONS

• How well does the test identify both those who pass the NCLEX, and those who fail?
• What are the chances of a student passing or failing the NCLEX, given a score of X on the predictive test?
For example, which do you prefer?

Predictive test scores were statistically significantly correlated with NCLEX-RN outcomes \((r = .32, p < 0.05)\).
Using a cut-score of 75, 92/100 students were correctly classified; 8 students were misclassified as predicted to fail when they actually passed the NCLEX-RN.

For example, which do you prefer?
• Review of Terminology:
  • Sensitivity
  • Specificity
  • Positive Predictive Value
  • Negative Predictive Value
  • Accuracy
  • Precision

• Screening vs. Diagnostic

• Methods to Assess
  • Regression/Correlation
  • Classification Accuracy (Disease Detection) Model: 2x2 table
  • Receiver Operating Classification (ROC) Area Under the Curve (AUC)
CLINICAL EXAMPLE

• Pregnancy Test
EDUCATIONAL EXAMPLE

• NCLEX Pass Rates and Prediction by Standardized Tests
REFERENCES


