HESI Exams: Consequences and Remediation

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A growing body of knowledge supports the use of Elsevier's standardized HESI exams as an admission criterion to evaluate ongoing student performance and curricular outcomes and to measure students' preparedness for the National Council Licensure Examination for Registered Nurses (NCLEX-RN). Because a plethora of research indicates that the HESI Exit Exam (E^2) is a valid predictor of NCLEX-RN success, faculty often designate a benchmark E^2 score that students are required to achieve. Students who do not achieve the faculty-designated benchmark score are required to remediate and retest with a parallel version of the E^2 to determine the effectiveness of the remediation and to reevaluate the student's preparedness for the licensure exam. This study compared mean E^2 scores of students who attended schools that attached consequences to E^2 scores with students who attended schools that did not attach consequences to E^2 scores. Based on data obtained from the Eighth Validity Study Questionnaire, findings indicated that E^2 scores were significantly higher ($P < .01$) in schools that associated consequences with failure to achieve the faculty-designated E^2 score and were also significantly higher ($P < .01$) in schools that required, rather than merely suggested remediation. (Index words: HESI; NCLEX-RN; Remediation; Nursing education; Online learning) J Prof Nurs 29:S22–S27, 2013.

IF NURSING EDUCATION is going to do its part to help ameliorate the nursing shortage, qualified applicants must be admitted to nursing programs, nursing curricula must prepare students to practice in today's health care settings, and graduates must be prepared to successfully complete the National Council Licensure Examination for Registered Nurses (NCLEX-RN). In an effort to meet these goals, faculties often administer Elsevier's standardized HESI exams, which are used to measure student achievement and curricular outcomes. These exams provide quantitative data that can assist faculty in making evidence-based decisions regarding admission selection, students' achievement of course objectives, and graduates' preparedness for the licensure exam. Additionally, data provided by these exams can be used for curriculum evaluation.

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To begin this process, it is important that nursing is perceived as a desirable career, one that is fulfilling and plays a significant role in the delivery of health care, as well as one that provides an adequate income and allows for advancement. Such perceptions by the public are essential to attracting quality applicants to nursing programs. In 2002, Johnson & Johnson launched the *Campaign for Nursing's Future*, a public-awareness initiative that was designed to address the nursing shortage in the U.S. by recruiting new nurses and nurse faculty and helping to retain nurses currently in the profession. More than $50 million has been spent to increase public awareness about the current and projected nursing shortage and to convey a positive image of nurses on nationwide television (Johnson & Johnson, 2013). The project has been immensely successful. Enrollments in nursing programs fell between 1995 and 2000, preceding the Johnson & Johnson *Campaign*, but began to increase in the fall of 2002 after the *Campaign* was initiated, and continued to increase impressively in each of the subsequent 3 years (American Association of Colleges of Nursing, 2012). Auerbach, Buerhaus, and Staiger (2011) reported that between 2002 and 2009, the number of full-time-equivalent registered nurses ages 23–26 increased by 62%. This surge in the number of young people entering nursing practice during the past decade indicates that the nursing

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workforce is projected to grow faster during the next two decades than previously anticipated. Ostrow (2012) reported that the number of full-time registered nurses grew by about 386,000 from 2005 to 2010, and about one-third of that growth occurred during a time when unemployment in the U.S. rose to as high as 10%. Although it is impossible to determine how much these increases in the nursing population can be attributed to the Johnson & Johnson *Campaign*, Donelan, Buerhaus, Ulrich, Norman, and Dittus (2005) reported that the broad awareness of the *Campaign* was likely to have exerted a meaningful impact on the decision of many to enroll in nursing education programs across the United States.

However, as the U.S. population ages, the need for more registered nurses will also increase. The Bureau of Labor Statistics (2012) projects that as baby-boomers—who are expected to live longer and more active lives—become older, the demand for health care services will increase, and the employment of registered nurses will grow 26% from 2010 to 2020, faster than the average for all other occupations.

Although applications to nursing programs have soared in the last 10 years, the faculty and clinical resources available to accommodate these applicants are limited (Aiken, Cheung, & Olds, 2009). Therefore, the need to graduate more nurses continues to be a health care delivery problem. Nursing faculties struggle with making evidence-based decisions about applicant selection and with retaining those who are admitted to nursing programs. Researchers have reported that scores on the HESI Admission Assessment are positively related to course grades (Chen & Voyles, 2013; Knauss & Willson, 2013; Murray, Merriman, & Adamson, 2008; Underwood, Williams, Lee, & Brunnert, 2013; Yoho, Young, Adamson, & Britt, 2007) and as such can assist faculty in making evidence-based decisions regarding applicant selection. Admitting students who are academically prepared for the rigors of a nursing curriculum is likely to improve retention rates.

Once students are admitted to the nursing program, it is the faculty's responsibility to prepare them for practice within various health care settings. To evaluate this preparedness, internal and external curriculum evaluation strategies need to be implemented. Internal curriculum evaluation measures student's achievement of the course objectives. The exams faculty produce to measure this achievement should contain quality test items that are scientifically analyzed for difficulty level and discrimination value, or their ability to differentiate between those who know the content and those who do not. External curriculum evaluation compares a student or a group of students to the nursing student population at large, and HESI Specialty Exams are standardized exams that provide such a measure (Morrison, Nibert, & Flick, 2006). Zweighaft (2013) reported that the mean E^2 score for students who took one or more HESI Specialty Exams during their nursing curriculum was significantly higher ($P < .01$) than the mean E^2 score for students who did not take HESI Specialty Exams during their nursing curriculum. The author further concluded that HESI Specialty Exams can be used to objectively evaluate students' curricular achievements.

Finally, graduates from nursing programs should be adequately prepared to pass the NCLEX-RN on their first attempt. The E^2 measures NCLEX-RN preparedness and provides subject matter scores that can be used to guide students' remediation efforts. Nine studies that investigated the validity of the E^2 indicate that it is 96.36%–99.16% accurate in predicting NCLEX-RN success (Adamson & Britt, 2009; Langford & Young, 2013; Lauchner, Newman, & Britt, 1999; Lewis, 2005; Newman, Britt, & Lauchner, 2000; Nibert & Young, 2001; Nibert, Young, & Adamson, 2002; Young & Willson, 2012; Zweighaft, 2013). Numerous researchers have described the use of the E^2 within nursing programs and have investigated its value in helping students prepare for the licensure exam (Bentley, 2006; Daley, Kirkpatrick, Frazier, Chung, & Moser, 2003; DiBartolo & Seldomridge, 2005; Frith, Sewell, & Clark, 2005; Morrison, Free, & Newman, 2002; Nibert, Young, & Britt, 2003). Harding (2010) reported that the E^2 was highly accurate in predicting NCLEX-RN success, but not in predicting licensure failure. However, Nibert et al. (2002) reported that as E^2 scores decreased, the percentage of NCLEX-RN failures significantly increased. Furthermore, Nibert et al. (2006) reiterated that the E^2 was not designed to predict NCLEX-RN failures, but rather to assess students' preparedness for the licensure exam and to provide data regarding the students' individual remediation needs. Targeting remediation efforts to the students' specific learning needs helps to increase their probability of passing the NCLEX-RN.

To evaluate testing and remediation strategies, the eighth E^2 validity study (Langford & Young, 2013) surveyed participating deans and directors regarding their testing and remediation policies. The purpose of this study was to report the findings of this survey and to compare the E^2 scores of students who attended schools that attached consequences to E^2 scores with those who attended schools that did not attach consequences to these scores. Additionally, E^2 scores were compared for students who attended schools that required remediation with students who attended schools that did not require remediation.

Method

After obtaining institutional review board approval, data were obtained for the eighth E^2 validity study (Langford & Young, 2013), and these data were also used for this investigation of testing and remediation policies. Electronic surveys were sent to deans and directors to obtain information about students' outcomes on the NCLEX-RN and schools' testing and remediation policies. To ensure confidentiality, students' names were removed before uploading the survey responses to Elsevier, and the data were stored in the HESI database as aggregates. Only aggregate data were provided to the researchers for