The demand for qualified nurses is increasing.[1] A strategy for meeting this demand is for qualified nursing candidates to enter the workforce as soon as possible. To assist with this strategy, the National Council Licensure Examination (NCLEX) examinations (NCLEX-RN and NCLEX-PN) are offered almost daily, and candidates' results are often released within days of examination completion. Although candidates can schedule their examination as soon as they receive an authorization-to-test letter, some candidates delay in taking their NCLEX examination, and some candidates who have registered and paid never take the NCLEX.[2]

A review of the literature revealed few articles and research other than prior research conducted by the National Council of State Boards of Nursing (NCSBN) on reasons why nursing candidates may delay in taking the NCLEX. A further review of the literature identified many articles on academic and nonacademic variables that predict success on the NCLEX. The academic variables mentioned in these studies included grade point average in nursing and science courses, clinical nursing grades, predictor test scores, and standardized test scores.[3–6] Nonacademic predictors

of success on NCLEX that have been noted are English as a primary language spoken at home, lack of family responsibilities, decreased test anxiety, increased self-esteem, lack of emotional distress, and self-perceived competence.[7,8] In addition, one study noted that motivation to succeed, family support, and NCLEX preparation were related to success on NCLEX.[9] Finally, anecdotal information from boards of nursing suggests that fear of failure combined with some jurisdictions allowing nurses to work under a temporary permit may decrease the motivation to take the NCLEX. All of the nonacademic variables seem to be plausible explanations for why some eligible candidates delay or do not take the NCLEX.

This article will investigate the relationship between passing the NCLEX and the delay or lag in taking the NCLEX. A discussion of the possible reasons for the relationship is presented.

....

Method

Participants

Data from the NCLEX-RN and NCLEX-PN examinations from July 1, 2006, to June 30, 2008, were ana-

lyzed. During this period, 176,539 RN examinations and 67,849 PN examinations were administered. The average age for RN candidates tested during this period was 30.7 years (SD = 8.5 years) and for PN candidates was 31.5 years (SD = 9.1 years). Most candidates were female (RN = 84.6%, PN = 86.4%). The most commonly reported ethnicity among candidates was white (RN = 57.7%, RN = 54.2%). The next largest ethnic group among RN candidates was Asian other (17.2%), whereas African American was the second largest ethnic group for PN candidates (21.2%).

Data Analyses

A moderated logistic regression was used to ascertain the effects of the number of retake attempts and delay or lag time on pass rate. In the present study, candidate's pass/fail status was used as a criterion variable in the regression equations. Candidates' lag time (the number of days between eligibilte-588(between.T877)sior

variables.[11] Centering involves transforming raw score variables into deviation scores where variable means are set to zero. This technique helps minimize potential multicollinearity among regression variables due to scaling.

In the present study, a significant interaction would indicate that regression of the criterion variable (pass/fail status) on lag time varies as a function of number of attempts. This would support the presence of

pass. In addition, as time passes with the greater number of attempts, some of the initial factors affecting pass rates may decrease or disappear such as family responsibilities and lack of English proficiency. It is very likely that candidates' lag time before taking the NCLEX is not random. Perhaps candidates who felt unprepared for the licensure examination self-selected to take the test later in their eligibility period, as opposed to their more confident counterparts. Although NCSBN does not have direct data that measure candidates' motivation to delay taking the NCLEX after obtaining eligibility, the data obtained from an unpublished nonlicensure survey may provide some insight into the matter.

In 2004, NCSBN conducted a survey to investigate the reasons behind why some candidates who completed their nursing education and obtained eligibility to sit for the NCLEX never took the licensure examination.[13] Survey data were obtained from candidates who registered for the NCLEX in 2001 but had not taken the NCLEX as of December 2003. Two hundred seventy-one RN candidates and 86 PN candidates participated in the survey. For both the RN and PN groups, the most frequently cited reason for not taking the NCLEX was ''not confident in ability to pass exam.'' Table 2 lists the most frequently cited reasons for

eligible candidates who did not seek licensure.

....

Conclusions

suggest that there is a relationship between delay in taking NCLEX and passing, it should be reiterated that a delay in taking the NCLEX does not cause a candidate to fail.

REFERENCES

1. Buerhaus P, Staiger DO, Auerbach DI. *The Future of the Nursing Work-force in the United States: Data, Trends, and Implications*. Boston, MA: Jones and Bartlett; 2008.
2. NCSBN. *The Brain Book, 2004 NCLEX-RN Alpha Meeting*. Chicago, IL: National Council of State Boards of Nursing (NCSBN); 2004:68.
3. Roncoli M, Lisanti P, Falcone A. Characteristics of baccalaureate graduates and NCLEX-RN performance. *J NY State Nurses Assoc*. 2000;31(1):17–19, (5 ref).
4. Arathuzik D, Aber C. Factors associated with National Council Licensure Examination—registered nurses success. *J of Nurs*. 1998;14(2):119–126.
5. Barkley TW, Rhodes RS, Dufour CA. Predictors of success on the NCLEX-RN among baccalaureate nursing students. *Nurs Health Care Perspect*. 1998;19(3):132–137.
6. Campbell AR, Dickson CJ. Predicting student success: a 10-year review using integrative review and meta-analysis. *J of Nurs*. 1996;12(1):47–59.
7. Eddy LL, Epeneter BJ. The NCLEX-RN experience: qualitative interviews with graduates of a baccalaureate nursing program. *J Nurs Educ*. 2002;41(6):273–278, (13 ref).
8. California Board of Registered Nursing. *NCLEX-RN Report; Percent Passed per Year*. December 2000.
9. Smith BD. *Bring it on Nurse: Candidates Critical of Success for Registration Candidate*