First-Time NCLEX-RN Pass Rate: Measure of Program Quality or Something Else?

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ABSTRACT

The first-time NCLEX-RN® pass rate is considered by many to be the primary, if not sole, indicator of the quality of prelicensure nursing education programs. Used by state boards of nursing, educational program accreditors, and nursing faculty, the first-time NCLEX-RN pass rate influences important decisions about overall program quality, admission and progression policies, curricula, and teaching and learning practices. In this article, the authors call for a professional dialogue about the use of first-time pass rate (F-TPR) as an indicator of program quality, offer alternative methods for using the F-TPR as one measure of program quality, and suggest further research. One program's experience with low F-TPRs is offered as an exemplar of the unintended negative consequences that occur when the F-TPR is used as a sole criterion by a state board of nursing in judging a program's quality. [*J Nurs Educ.* 2014;53(6):336-341.]

In a thought-provoking guest editorial, Giddens (2009) challenged the nursing profession to question the long-standing assumption that NCLEX-RN® first-time pass rates (F-TPRs) are the "gold standard signifying nursing program quality" (p. 123). Giddens's commentary, which echoes a position by Bernier, Helfert, Teich, and Viterito (2005), is particularly timely, as the growing culture of accountability continues to demand more quantifiable evidence for effectiveness of higher education programs. State boards of nursing have established expected levels of performance for first-time takers of the NCLEX-RN examination that when not met, trigger specific actions aimed at improving F-TPR outcomes. Nursing education accreditors have also established performance expectations for first-time licensure test takers in response to the requirements of the U.S. Department of Education for accrediting bodies (Accreditation Commission for Education in Nursing, 2013; Commission on Collegiate Nursing Education, 2013).

Around the same time that the Giddens guest editorial (2009) was published, the baccalaureate program at the authors' institution was experiencing its second year of having an NCLEX-RN F-TPR below 80%, which was a precipitous and unexpected downturn following a long history of more than 90% F-TPRs. In 2010, the F-TPR continued to hover just below 80%, and the program was placed on conditional status by the Texas Board of Nursing (2012) in accordance with its regulatory policies for prelicensure educational programs. Now, following 3 consecutive years of high F-TPRs (95% in 2011, 97% in 2012, and 95% in 2013) and reflection on the experience, the authors are compelled to challenge the use of the F-TPR as the premier, and often sole, indicator of high quality nursing programs.

Although many broadly agree that several indicators exist regarding the quality of nursing programs (e.g., graduation rates, constituent satisfaction, graduates' ability to meet the needs of the communities they serve), the focus of this article is limited to the F-TPR of the NCLEX-RN, how programs respond to poor F-TPRs, and the unintended consequences of using the F-TPR as the major indicator of program quality. Alternative approaches to how NCLEX-RN pass rates can be used as part of the quality assessment are also offered.

OVERVIEW OF THE LITERATURE

Student Characteristics

Published articles about NCLEX-RN pass rates can be organized into two broad categories: those that focus on characteristics of students who are or are not successful on their first attempt of the NCLEX-RN, and interventions used by programs to improve F-TPRs. Although the published research focuses on program-controlled factors, other influences outside the control of the nursing program are often identified as correlates to first-time failures. These influences include gender, ethnicity, academic history, and lag time between program completion and taking the NCLEX-RN examination.

Seago and Spetz (2005) reported that programs with higher percentages of male students had lower than average F-TPRs. This is similar to the finding by De Lima, London, and Manieri (2011) of lower F-TPRs for male students and is consistent with the authors' program's experience, where men are disproportionately represented among those who fail the first time. Although men comprise 17% to 21% of the total nursing student population in the authors' prelicensure program, they represent 50% of the first-time NCLEX-RN takers who failed the examination over the past 3 years.

For more than one decade, studies have identified student ethnicity as a factor associated with failure on the NCLEX-RN examination. In a statewide study of California nursing students who completed the NCLEX-RN examination in 2001 and 2002, Seago and Spetz (2005) reported that programs with a high percentage of African American students had a 77.4% F-TPR average, compared with the overall state average of 84.4%. Sayles, Shelton, and Powell (2003) compared academic records with demographic data and found that African American and Hispanic nursing students were less likely than their White counterparts to pass the NCLEX-RN examination. De Lima et al. (2011) reported similar findings for African American, Hispanic, and Asian nursing students. Loftus and Duty (2010) also reported that 77.8% of African American students passed on the first attempt, compared with 93% of White students. This finding is consistent with the authors' program's experience, where ethnic minorities have been disproportionately represented among those who fail on the first attempt.

Not surprisingly, studies have confirmed what is anecdotally known by many nurse educators—students who struggle academically, earning low or failing grades or withdrawing from courses, are more likely to fail on their first NCLEX-RN attempt. Endres (1997) reported that in a sample of 50 African American students, 50 foreign-born students, and 50 White students randomly selected from private and public programs, the number of D or F grades earned in a nursing course significantly differentiated between passing and failing the NCLEX-RN for graduates. Similarly, Jeffreys (2007) found that among 77 nurse graduates, 94% of students without withdrawals or failures passed the NCLEX-RN the first time, whereas 50% of students with two or more withdrawals or failures passed on the first attempt.

Woo, Wendt, and Liu (2009) found that students who delay taking the examination after program completion are less likely to pass than those who do not delay. They reported that in an unpublished survey, the most frequently cited reason for the delay was "not confident in ability to pass the exam" (Woo et al., 2009, p. 25). They also recommended that nursing programs encourage their new graduates to take the test as soon as possible, suggesting that those who are not working in nursing may experience a decline in nursing knowledge and skills over time.

Eddy and Epeneter (2002) reported that the participants in their study who failed the NCLEX-RN felt unprepared and hurried by family, friends, and employers to take the examination sooner than they would have liked. In a study of postgraduation factors associated with NCLEX-RN results, Beeman and Waterhouse (2003) found that increased hours of studying after graduation were associated with passing the NCLEX-RN examination. In addition, Beeman and Waterhouse identified that those graduates who began studying new, job-specific nursing material were less successful than those who continued to study basic nursing material, suggesting that the effort to master new material left insufficient time and energy for postgraduation NCLEX-RN preparation. However, little published research exists on the experience of failing the NCLEX-RN examination.

Program Responses to Improve the F-TPR

The literature is replete with examples of efforts made by programs to improve their F-TPRs. Many of these interventions stemmed from a downturn in pass rates and were specifically designed to address the unique experiences of the given programs. Interventions include major and minor curriculum changes, scheduling changes, changes to admissions standards, use of standardized examinations for progression and graduation, the offering of review courses, introduction of study skills, the teaching of stress management techniques, and other creative and innovative approaches (DiBartolo & Seldomridge, 2005; Hyland, 2012; Pennington & Spurlock, 2010).

Three reviews have been conducted on interventions used by programs (DiBartolo & Seldomridge, 2005; Hyland, 2012; Pennington & Spurlock, 2010), which identified a lack of rigor used in the intervention studies. Among the limitations were the lack of comparison groups, small sample sizes, and the use of multiple strategies, which made it difficult to disentangle the strategies that were most useful from those that were not helpful. It is important to acknowledge that the reviewed intervention studies were designed to target students in specific programs and were not necessarily designed to test the effectiveness of the interventions for comparison among programs.

A frequently reported intervention is to adjust admission policies to increase minimal grade point average (GPA) and other academic requirements, thereby increasing competition for available seats in the program. Many nursing programs have adopted stringent progression policies in an effort to ensure that their pass rate remains at an acceptable level (Spurlock, 2006). Progression policies are often designed to identify and prevent students at risk of failing the NCLEX-RN on the first attempt from completing the program and graduating, thus making them ineligible to take the examination. These policies often include limiting the number of course failures that a student can receive before being dismissed from the program, requiring higher minimum course grades to pass than those required for other majors, and using a nationally standardized exit exami-

nation as a graduation requirement. All of these measures are instituted to ensure the highest possible F-TPR.

Finally, it is significant to note that a dearth of information exists on interventions designed to support graduates after they have failed the NCLEX-RN examination. Most published research has focused on identifying students who are at risk of failure and the interventions designed to either ensure success or ensure that weak students do not take the NCLEX-RN.

WHY IT IS TIME FOR A NATIONAL DISCUSSION ON THIS ISSUE

NCLEX-RN examinations dominate the national discussion in prelicensure nursing education for good reason. In a culture that values quantification as an objective measure, the data derived from pass rates can be easily understood, and are relatively easy to capture. In addition, they allow for comparisons across programs and individuals and facilitate communication about the data to external constituents. However, what if the use of the F-TPR as the gold standard for program quality and effectiveness is based on flawed assumptions? Is it possible that F-TPRs have less to do with the quality of the program and more to do with individual test takers' characteristics, variables that influence the testing experience and results at the time of testing, or simply the academic strength of individuals admitted to nursing programs?

Passing or failing the NCLEX-RN is a complex phenomenon; however, despite of the availability of sophisticated analytical techniques that can tease out complex variables, the nursing profession relies on the most rudimentary statistical analysis of pass rates to inform important, and sometimes life-changing, decisions. By continuing to rely on a simple percentage of success on the first attempt as an indicator of quality nursing programs, the profession is missing the opportunity to understand the complexity of the NCLEX-RN testing experience. In addition, persistent use of this metric also perpetuates unintended negative consequences for graduates who fail on the first attempt and the programs from which they graduate.

Although state boards of nursing and accrediting bodies have expected rates for the minimal F-TPR on licensure examinations, those rates, as well as the resulting disciplinary actions if the rates are not met, vary across states and accrediting bodies. In Texas, a program is placed on warning status if the F-TPR is less than 80% for 2 consecutive years and is placed on conditional approval if the F-TPR is less than 80% for 3 consecutive years. Approval may be withdrawn if the F-TPR remains below 80% in the year following placement on conditional status (Texas Board of Nursing, 2012). In California, the minimum pass rate of 75% for first-time candidates in an academic year will prompt a comprehensive program assessment, and a board-approved visit is conducted if the program's F-TPR persists below 75% in 2 consecutive years. The board may place a program on warning status with the intent to revoke approval if the minimum F-TPR is not maintained (California Board of Registered Nurses, 2010). In Florida, approved nursing education programs must achieve an F-TPR that is not lower than 10 percentage points less than the average passage rate for graduates of comparable degree programs in the United States.

Failure to meet the passage rate for 2 consecutive years results in placement on approved/probation status (Florida Board of Nursing, 2013).

Accrediting bodies for nursing education programs also differ in their expectations for F-TPRs. The Commission on Collegiate Nursing Education (2013) has established an F-TPR of 80% as the minimum level of acceptable performance to demonstrate program effectiveness, with opportunities for multiple year means analysis under specified circumstances. The Accreditation Commission for Education in Nursing (2013) requires programs to demonstrate a 3-year mean for the licensure pass rate for first-time NCLEX-RN takers that is at or above the national mean for the same 3-year period.

Thoughtful and responsible leaders make informed and well-meaning judgments about appropriate minimal expectations for performance. Lack of evidence for what the F-TPR is actually measuring (other than the ability to pass the examination on the first try) may explain why state boards of nursing, accrediting bodies, and even individual nursing programs do not agree on the F-TPR percentage when judging the quality of educational programs. The assumption that the F-TPR is the most valuable indicator for program quality is only logical when other possible contributing variables to first-time NCLEX-RN performance have been ruled out.

IT IS AN ADMISSION PROBLEM

Nurse educators often anecdotally report that a low pass rate points to an admission problem, suggesting that when the F-TPR goes down, it is more a by-product of the quality of students who have been admitted than it is a statement about the program. If this is true, curricula and the quality of programs may have little influence on the F-TPR. Academically strong students who enter programs may succeed despite of a program's quality because of their own academic abilities, personal drive, and test-taking skills.

To those who argue that only academically strong students should be admitted to nursing programs because of the complexity of nursing work, the authors offer the following observations. Many nursing programs are located in demographically shrinking areas and thus have smaller applicant pools than those programs located in densely populated areas or areas with multiple nursing programs in which the competition for seats is high. Programs located in areas with sparse populations often serve large numbers of students with characteristics that are frequently identified as high risk for academic success (e.g., first-generation students, students who must work at least part time or more, students with family obligations, and students who were educated in high schools with low academic resources). Although at-risk students may meet the identified minimum academic standards for admission, they are often not competitive in a system that ranks students by science, math, and overall GPA to make admission decisions (Samson, 2004).

Admissions policies designed to ensure high success rates of program completion and F-TPRs may limit access to nursing education for the very students the profession seeks to recruit. Milone-Nuzzo (2007) posited that stringent admission policies can be a major challenge for nursing programs hoping to recruit

and admit racially and ethnically diverse students. Is it possible that admission policies designed to ensure high F-TPRs are unintentionally contributing to the lack of diversity in the nursing profession?

PARADOX OF GROWTH IN ENROLLMENT AND F-TPRs

The experience of the authors' program's offers an exemplar of the competing interests of growing enrollments in nursing education and maintaining high F-TPRs. In an effort to respond to the demand for graduates, the authors' prelicensure BSN program added a third admission cohort in the summer session to the usual two cohorts admitted each year and began offering all courses throughout the year. This adjustment increased the number of qualified applicants accepted annually, increased the number of graduates available in the workforce each year, and expedited progression through the program. By adding an additional admission cohort, qualified applicants, who otherwise would not have been accepted because their GPAs or other admissions criteria placed them low in the ranking for available seats were admitted. This led to a larger number of students who met the minimum criteria for admission but who were less strong academically. The NCLEX-RN F-TPR for those cohorts dropped below the required 80% expected level of performance.

Of importance, the graduates from the authors' program who did not pass the NCLEX-RN the first time did pass on their second attempt within 6 months of graduation. During the period of low F-TPRs, the percentage of graduates who passed within 1 year of graduation exceeded 97%. Had those students been failed out of the program due to policies and rules intended to improve the F-TPR, they would not be functioning as licensed RNs and serving their communities today.

The authors argue that it is reasonable to conclude that the curricula and teaching–learning practices of programs contribute to success on the second attempt of the test. Indeed, many programs like the authors' continue to offer support and access to resources to graduates until they are successful on the NCLEX-RN postgraduation. For example, students who are not successful on the first attempt are offered access to NCLEX-RN preparation resources, even if they are no longer enrolled in the university. They are also offered counseling and other support related to test-taking anxiety and one-to-one tutoring, if necessary. The authors believe that ongoing support for graduates who fail the first time is part of a high-quality education.

As expected, among the many changes the authors' program made to address the F-TPR was an increase in the required GPA for admission, the elimination of year-round course offerings, and ending the admission of a third cohort per year. The curriculum was changed, progression policies were adjusted, teaching and learning practices were altered, and higher standards for exit examinations were established. This program, like many others, implemented multiple changes that cannot be easily disentangled to identify which changes made the greatest impact. However, certain outcomes were clear. To improve the F-TPR and avoid further disciplinary action, the program initiated actions that led to decreased admissions, decreased number of graduates, and slower matriculation through the program. At a time when enrollment needed to increase and more graduates were needed in the work force, the pressure to meet the expected F-TPR forced actions that were counterproductive to those purposes.

The authors found no evidence in the literature that students who failed the NCLEX-RN the first time but passed on a subsequent attempt are less safe in practice than those who passed the first time. In fact, most nurse educators can point to examples of average students who may have struggled through the nursing program and failed the NCLEX-RN on first attempt but who have become successful and highly respected nurses nonetheless.

HIGH-STAKES TESTING

Blazer (2011) offered a comprehensive review of the literature regarding high-stakes testing. The literature review included studies from all levels of education but is applicable for nursing education programs due to the inclusion of high-stakes testing in nursing curricula and the high-stakes nature of licensing examinations. Although researchers consistently find negative consequences of high-stakes testing, some positive effects of high-stakes testing are also evident.

Among the negative consequences of high-stakes testing are the narrowing of curriculum, the exclusion of nontested subject areas, the adaptation of teaching style to testing format, excessive test preparation, a disproportionate and negative impact on disadvantaged students, misleading measures of overall student achievement, test anxiety, increased pressure on teachers, lower teacher morale, and the manipulation of student retention and reclassification policies to increase test scores (Blazer, 2011). Although less evident, the positive effects of high-stakes testing can include increased professional development of teachers, the alignment of instruction with accepted standards, increased opportunities for remediation, and increased use of data to inform instruction. Blazer (2011) also reported inconsistent findings of the impact of high-stakes testing on dropout rates, academic achievement, student motivation, and publicly available information about high-stakes tests on programs.

Just as licensing examinations are high-stakes experiences for the test takers, F-TPR thresholds become high-stakes experiences for faculty and their programs as well. When a program's F-TPR falls below the minimum expected level and state boards and accrediting bodies take disciplinary action, programs can experience serious repercussions to their reputations, which can have a long-lasting impact.

In the authors' experience, the action by the state board of nursing was front-page news in the local newspaper. Local television news stations covered the story, and despite best efforts to clarify what the disciplinary action meant for the program and its current and future students, rumors perpetuated negativity. The rumors ranged from the plausible but untrue (e.g., no students would be admitted for 2 years), to the completely implausible and untrue (e.g., the program was closing and would never reopen), to the ridiculous (all students who had ever earned a degree in nursing from the university would lose their license). Even after 3 years of 95% and above F-TPRs and significant efforts at marketing, the applicant pool remains small because the

rumor that the program has closed or will close persists. It is not possible to quantify the time, energy, and fiscal resources that have been devoted to countering the negative impact of a simple percentage point that tells only one part of the complex story of a nursing program's quality.

Despite the prevalence of research regarding the negative impact of high-stakes testing and the general perspective among nurse educators that the NCLEX-RN is an incomplete measure of nursing knowledge, skills, and ability, nursing faculty are greatly influenced in their program-related decision making by the F-TPR. In a study designed to determine how nursing faculty evaluate student learning and determine assessment and grading methods, the NCLEX-RN pass rate was identified as the most important consideration by a majority (82%) of participants (Oermann, Saewert, Charasika, & Yarbrough, 2009). The pass rate was considered more important than other research evidence when making academic decisions, selecting a method for assessing learning, and assigning course grades.

ALTERNATIVE APPROACHES TO A MEANINGFUL METRIC

Despite the authors' argument that using a simple statistical measure (F-TPR) to assess the complexities of quality in nursing education seems inappropriate, the authors are also pragmatists with regard to data collection and aggregation. The F-TPR certainly has a role in informing faculty and constituents about the preparation of students for the licensing examination, but it is not the only useful metric that exists to understand quality. The authors propose alternatives for using the F-TPR in determining program quality and suggest that it is only part of a program's quality story. In making these proposals, the authors recognize that data retrieval and management difficulties may vary from program to program and state to state. For this reason, the authors call on the National Council of State Boards of Nursing (which has access to the necessary data), accreditors, and nursing education associations to collaborate on developing a consistent data-reporting approach. Such approaches could include:

● Calculation of the percentage of graduates who pass the NCLEX-RN within two attempts following graduation. This strategy may perpetuate overly rigorous admission and progression policies, but it encourages programs to support graduates who fail on the first attempt, with the goal of increasing the number of practicing RNs within a short period of time following graduation.

● Calculation of the percentage of graduates who pass the NCLEX-RN within 1 year of graduation, regardless of the number of times they take the examination.

● Calculation of the percentage of admitted students who pass the NCLEX-RN within two attempts following graduation. This strategy provides an incentive for programs to work with admitted students toward their successful graduation and passing of the NCLEX-RN, rather than encouraging policies designed to weed out weaker students who may disproportionally represent the diverse graduates the nursing profession seeks. However, this strategy could also have the negative impact of perpetuating overly rigorous admission standards that decrease enrollments.

● Creation of a metric that correlates graduation rates with pass rates in ways that incentivize programs to admit and maintain students with diverse needs and who can pass the NCLEX-RN within two attempts.

The authors acknowledge that these kind of data will be more difficult to capture but confident that the innovative and creative problem solvers of the nursing profession can and will find workable solutions.

IMPLICATIONS FOR RESEARCH

The complex variables that contribute to the F-TPR deserve more research attention. The nationally standardized testing process provides feasible research opportunities for better understanding the phenomenon and for supporting related policies. Suggestions for continuing research in this area include:

● Examining factors that influence NCLEX-RN testing experiences and results at the time of testing, such as personal emergencies or circumstances that occur near or at the time of testing, anxiety or distress at the time of testing, and environmental factors in the testing center.

● Examining evidence regarding safety and other performance variables for practicing nurses who took the NCLEX-RN more than once.

● Examining the impact on the lives of students who fail nursing programs.

● Isolating the changes implemented by programs that truly lead to improvements in the F-TPR and disentangling the myriad approaches that programs tend to implement simultaneously.

● Examining the impact on the lives of nurse graduates who fail the NCLEX-RN the first time.

● Identifying the myths that are perpetuated among test takers about the test, which may contribute to anxiety before and during testing.

● Examining the impact of disciplinary actions on nursing programs that have faced such actions as a result of low F-TPRs.

CONCLUSION

Given the importance assigned to F-TPRs, a stronger base of evidence is needed for the use of the F-TPR as the primary indicator of the quality of nursing programs. Use of F-TPRs as the primary indicator of quality by state boards of nursing and accrediting bodies may contribute to admission and progression policies designed to prevent students who are at risk of failing the NCLEX-RN on the first attempt from entering nursing programs and progressing to graduation. These policies may also contribute to a persistent shortage of graduating nurses and decreased diversity in the nursing workforce. Furthermore, disciplinary actions against programs whose graduates experience lower than expected F-TPRs may lead to unintentional and unearned damage to a program's reputation. A national discussion about the long-held value of using F-TPRs as an indicator of the quality of prelicensure nursing programs is warranted among nurse educators and nurse leaders.

REFERENCES

Accreditation Commission for Education in Nursing. (2013). *Standards and criteria: Baccalaureate.* Retrieved from http://www.acenursing.net/manuals/SC2013_BACCALAUREATE.pdf

Beeman, P.B., & Waterhouse, J.K. (2003). Post-graduation factors predicting NCLEX-RN success. *Nurse Educator, 28,* 257-260.

Bernier, S.L., Helfert, K., Teich, C.R., & Viterito, A. (2005). Nursing program success: Are we using the right "gold" standard? *Community College Journal, 76*, 36-40.

Blazer, C. (2011). *Unintended consequences of high-stakes testing.* Retrieved from http://www.eric.ed.gov/ERICWebPortal/search/detailmini.jsp?_nfpb=true&_&ERICExtSearch_SearchValue_0=ED536512&ERICExtSearch_SearchType_0=no&accno=ED536512

California Board of Registered Nurses. (2010). Title 16, California code of regulations. Article 3: Prelicensure nursing programs. §1431: Licensing examination pass rate standard. Retrieved from http://www.rn.ca.gov/regulations/title16.shtml#1431

Commission on Collegiate Nursing Education. (2013). *Standards for accreditation of baccalaureate and graduate nursing programs.* Retrieved from http://www.aacn.nche.edu/ccne-accreditation/Standards-Amended-2013.pdf

De Lima, M., London, L., Manieri, E. (2011). Looking at the past to change the future: A retrospective study of associate degree in nursing graduates' National Council Licensure Examination scores. *Teaching and Learning in Nursing, 6,* 119-123.

DiBartolo, M.C., & Seldomridge, L.A. (2005). A review of intervention studies to promote NCLEX-RN success of baccalaureate students. *Nurse Educator, 30,* 166-171.

Eddy, L.L., & Epeneter, B.J. (2002). The NCLEX-RN experience: Qualitative interviews with graduates of a baccalaureate program. *Journal of Nursing Education, 41,* 273-278

Endres, D. (1997). A comparison of predictors of success on NCLEX-RN for African American, foreign-born, and White baccalaureate graduates. *Journal of Nursing Education, 36,* 365-371.

Florida Board of Nursing. (2013). Title XXXII. Regulation of professions and occupations. Chapter 464: Nursing. §464.019: Approval of nursing education programs. Retrieved from http://www.leg. state.fl.us/statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=0400-0499/0464/Sections/0464.019.html

Giddens, J.F. (2009). Changing paradigms and challenging assumptions: Redefining quality and NCLEX-RN pass rates. *Journal of Nursing Education, 48,* 123-124.

Hyland, J.R. (2012). Building on the evidence: Interventions promoting NCLEX success. *Open Journal of Nursing, 2,* 231-238. doi:10.4236/ojn.2012.23036

Jeffreys, M.R. (2007). Tracking students through program entry, progression, graduation, and licensure. Assessing undergraduate nursing student retention and success. *Nursing Education Today, 27,* 406-419.

Loftus, J., & Duty, S. (2010). Educating ethnic minority students for the nursing workforce: Facilitators and barriers to success. *Journal of the National Black Nurses Association, 21*(1), 7-16.

Milone-Nuzzo, P. (2007). Diversity in nursing education: How well are we doing? *Journal of Nursing Education, 46,* 343-344.

Oermann, M.H., Saewert, K.J., Charasika, M., & Yarbrough, S.S. (2009). Assessment and grading practices in schools of nursing: *Nursing Education Perspectives, 30,* 274-278.

Pennington, T.D., & Spurlock, D., Jr. (2010). A systematic review of the effectiveness of remediation interventions to improve NCLEX-RN pass rates. *Journal of Nursing Education, 49,* 485-492.

Samson, L.F. (2004). Strategies to increase success of underrepresented minorities in nursing. *Nurse Leader, 2*(6), 31-35.

Sayles, S., Shelton, D., & Powell, H. (2003). Predictors of success in nursing education. *The ABNF Journal, 14,* 116-120.

Seago, J.A., & Spetz, J. (2005). California's minority majority and the White face of nursing. *Journal of Nursing Education, 44,* 555-562.

Spurlock, D., Jr. (2006). Do no harm: Progression policies and high-stakes testing in nursing education. *Journal of Nursing Education, 45,* 297-302.

Texas Board of Nursing. (2012). Texas Administrative Code. Title 22, Part II, Chapter 215, Rule §215.4. Retrieved from http://info.sos.state.tx.us/pls/pub/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=22&pt=11&ch=215&rl=4

Woo, A., Wendt, A., & Liu, W. (2009). NCLEX pass rates: An investigation into the effect of lag time and retake attempts. *JONA's Healthcare Law, Ethics & Regulation, 11,* 23-26. doi:10.1097/NHL.0b013e31819a78ce