

Introduction

The National Council Licensure Examination (NCLEX)[®] has been the benchmark certification exam in registered and practical nursing for decades. A computer adapted testing version has been in use since 1994.¹ Nursing Regulatory Bodies (NRB's), which regulate the practice of nursing for all 50 states, the District of Columbia, and four U.S. territories, grant professional licensure on the basis of test takers' NCLEX outcomes. Typical requirements for entering the profession include:²

- Graduating from a recognized nursing program
- Meeting requirements of a state board of nursing
- Passing the National Council of State Boards of Nursing (NCSBN)[®] NCLEX examination for registered nurses (RNs) or licensed practical/vocational nurses (LPN/VNs)

NCLEX-RN[®] pass rates vary substantially by state and degree level assessed. Nationally, the 2019 pass rates averaged 72.8 percent, with an 83.51 percent pass rate for first-time test takers and a 38.38 percent pass rate for repeat test takers. These pass rates have been largely stable since the arrival of computer adaptive testing in the early 1990s, with a pronounced drop in pass rates and slow recovery following the most recent changes to the passing standard in 2013.³

Nurse.org notes that "a shocking number of new graduates fail their boards on the first attempt, but it's rarely discussed."⁴ They recommend that test takers who fail the NCLEX should seek to retake it as soon as possible to avoid skill and knowledge erosion. However, consequences for failing the exam are felt beyond the students whose careers are delayed or derailed.

Academic programs with higher or rising failure rates are more likely to run afoul of their state NRB's, resulting in program closure. For instance, St. Paul College's first-time NCLEX-PN pass rate declined substantially from 2016 to 2018. This resulted in the Minnesota Board of Nursing threatening to close the

program if pass rates did not rise above the 75 percent threshold in 2019, and prompted a site visit from the Accreditation Commission for Education in Nursing (ACEN).⁵

Critiques of NCLEX Overreliance

Jean Foret Giddens' 2009 editorial in the *Journal of Nursing Education* is an early example of efforts to reconsider the use of NCLEX results when evaluating nursing programs.⁶ Her criticisms of field's overreliance on NCLEX-RN first-time pass rates is based on several arguments, summarized below.

Figure 1: Giddens' Critiques of NCLEX First-Time Pass Rates as Indicators of Program Quality

Faculty and accretor focus on NCLEX pass rates has stifled innovation in teaching and curriculum design.

Programs are purchasing access to third-party commercial NCLEX exam preparation products and services, possibly to the detriment of classroom instruction and to students attending institutions that do not invest in those resources.

Program focus on maintaining NCLEX pass rates may be compounding disadvantages for students who perform well in clinical settings but have poor exam performance, since some programs "weed out" students they deem unlikely to pass the NCLEX on their first try.

The multiple choice format of the NCLEX may disadvantage underrepresented minority students who "have diverse learning strengths, preferences, and perspectives that differ from the Eurocentric perspective."

Source: Giddens⁷

¹ "2019 NCLEX Examination Statistics," NCSBN, July 2020, 8.

² List quoted from: "Quarterly Examination Statistics-2019," NCSBN.

³ "2019 NCLEX Examination Statistics," 30.

⁴ Colduvell, Kathleen, "Failed the NCLEX? Now What?" Nurse.org. July 2017.

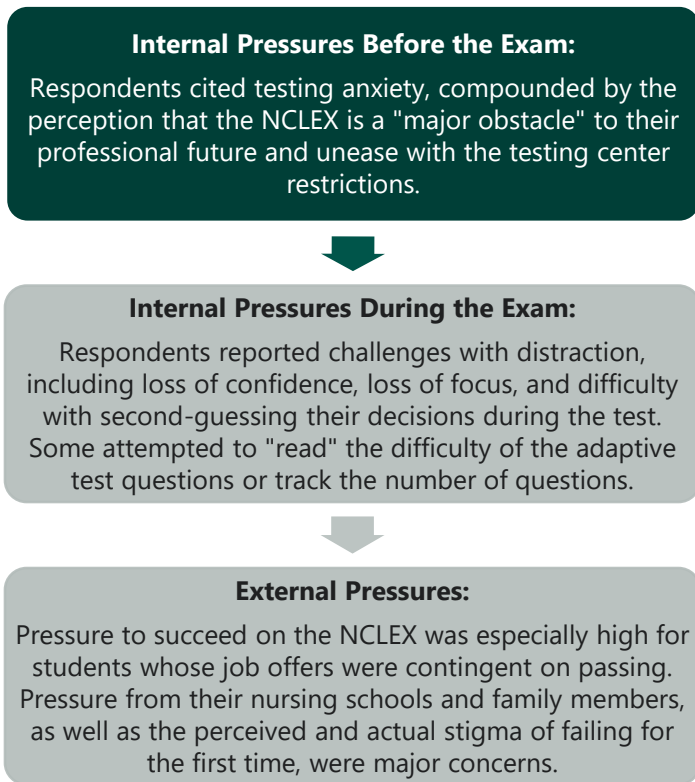
⁵ Verges, Josh, "St. Paul College Nursing Program in Danger as Exam Scores Plummet," Pioneer Press, November 2019.

⁶ For example, see, O'Lynn, Chad, "Rethinking Indicators of Academic Quality in Nursing Programs," *Journal of Nursing Education*, 56.4 (2017), 195.

⁷ Figure summarizes arguments from: Giddens, Jean Foret, "Changing Paradigms and Challenging Assumptions: Redefining Quality and NCLEX-RN Pass Rates," *Journal of Nursing Education*, 48.3 (2009), 122-123.

In her 2014 Marquette University doctoral dissertation, Tammy L. Kasprovich studied the experiences of nurses who failed the NCLEX-RN on their first attempt, but later passed. Her 15 interviews with nurses who fit this educational profile suggest that a range of non-academic factors led these students to fail on their first attempt:

Figure 2: Kasprovich's Findings on Pressures Facing Students Who Failed their First NCLEX Attempt



Source: Kasprovich, 2016⁸

One consideration when applying Kasprovich's findings to state NRB NCLEX policies is that she focuses on the experiences of students who subsequently passed the exam. As a result, they ultimately demonstrated academic readiness for the profession. Their experiences suggest that some students may struggle to pass the exam for non-academic reasons.

While 29 states allow graduate nurses who have not yet taken the NCLEX-RN to practice, none of them permit candidates who have failed the test to continue working in their roles. This loss of workers in RN roles, particularly in areas where the shortage of nurses is especially acute, may call for a reevaluation of first-time NCLEX-RN pass rates as a means of evaluating programs or permitting graduate nurses to work in their roles if their performance is otherwise satisfactory.⁹

⁸ Figure summarizes findings from: Kasprovich, Tammy L., "Experiences of Registered Nurses Who Were Not Initially Successful on the NCLEX-RN, Then Subsequently Passed," Unpublished Dissertation – Marquette University, 2016, 108-122.

⁹ Kasprovich, 154-155.

Kasprovich suggests that states consider focusing on first and second-time test taker pass rates when evaluating nurses and nursing programs:

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In the state of Wisconsin, first-time pass rates are reported and represent the performance of that particular school of nursing to the public. Focusing primarily on first-time pass rates diminishes the fact there are other factors besides nursing content that can prevent GNs from being successful on the NCLEX-RN. Based on this finding, a recommendation could be made for the state of Wisconsin to report both first and second-time pass rates for schools of nursing to better inform the public without losing confidentiality for those who have taken the licensure examination.
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Source: Kasprovich, 2016¹⁰

Effects of NCLEX Focus on Nursing Education

Evidence suggests that candidates' prospective NCLEX performance is a factor in admissions decisions. This in turn influences which students are able to enter the nursing profession. While research demonstrates a relationship between NCLEX success and pre-clinical grades, and to a lesser degree clinical course grades, GPA, and SAT verbal skills, Elizabeth B. Simon, et al., contend that "there is no uniform consensus about a consistent and parsimonious set of predictor variables for NCLEX-RN success."¹¹ The strongest predictors their research found were students' performance on preclinical courses in biology, chemistry, and introductory nursing. Their recruiting recommendation for nursing programs focuses on these preliminary indicators:

It is recommended that educators recruit students with [a] high GPA, high scores in biology and chemistry, and [a] previous college degree if possible.¹²

That being said, this approach could limit access for students whose high school and undergraduate performance does not accurately represent their potential as a nursing professional.

¹⁰ Kasprovich, 154-155.

¹¹ Simon, Elizabeth B., et al., "Predictor Variables for NCLEX-RN Readiness and Exam Performance," *Nursing Education Perspectives*, 34.1 (2013), 19.

¹² Simon, 23.

Research by Darrell Spurlock suggests that nursing programs' strong incentives from state governing boards and accreditors to maximize their NCLEX first-time pass rates may be harming nursing students at earlier stages of their nursing education. His research, published in the *Journal of Nursing Education* in 2006, finds that "across the United States, an increasing number of schools of nursing are implementing progression policies" that often "prohibit nursing students from taking the [NCLEX-RN] because of poor performance on a standardized examination used to predict NCLEX-RN outcomes."¹³

Many schools have turned to the Health Education Systems, Inc. (HESI) Exit Examination to predict their students' performance on the NCLEX. They then use progression policies to ensure that only students who are likely to pass the NCLEX sit for the exam in order to inflate their NCLEX pass rates. Part of the problem with this approach is that preliminary indicators of NCLEX success may not be fully valid. For instance, Spurlock and Hanks (2004) found that the HESI exam has been shown to be accurate regarding which students would pass the NCLEX-RN exam, but "could not accurately predict who would fail."¹⁴ At the very least, Spurlock argues that if the nursing industry is to rely on the NCLEX as a major indicator, then it needs to find better predictors of student success or failure. Such indicators would allow programs to identify students at risk of NCLEX failure earlier in their education than when they would take the HESI, and before they have accumulated substantial debt.¹⁵

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Because in many cases first-time NCLEX-RN pass rates are so critically tied to schools' accreditation and licensure to operate, schools are rightly concerned about the implications of low pass rates. However, Sauter and Applegate (2005) offered some sound advice on this topic by noting that schools of nursing are designed to provide students with a general education, as well as preparation to practice in a professional discipline. So, while schools should be concerned with their NCLEX-RN pass rates, a broader view of assessment must be taken: one that includes variables other than NCLEX-RN outcomes and evaluation measures other than the HESI Exit Examination.

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Source: Spurlock, 2006¹⁶

¹³ Spurlock, Darrell, "Do No Harm: Progression Policies and High-Stakes Testing in Nursing Education," *Journal of Nursing Education*, 45.8 (2006), 297.

¹⁴ Spurlock, 299.

¹⁵ Spurlock, 301.

¹⁶ Spurlock, 298.

¹⁷ Murray, Teri A., et al., "A Nursing Workforce Diversity Project: Strategies for Recruitment, Retention, Graduation, and NCLEX-RN Success," *Nursing Education Perspectives*, 37.3 (2016), 143.

The high-stakes NCLEX exam pressure that schools of nursing face can distort programs' incentives to admit, train, and mentor students with more marginal academic preparation. As Teri A. Murray, et al., argue in a 2016 study on diversifying the nursing workforce, students' NCLEX scores can be improved, but doing so requires substantial institutional investments that may be difficult for many programs to sustain. The authors describe the results of a Health Resources and Services Administration (HRSA) grant program to enhance the diversity of the nursing workforce:

As a result of the HRSA NWD grant, the SON [School of Nursing] was able to establish a proactive sustainable retention program for students from underrepresented or disadvantaged backgrounds, design mentorship opportunities, develop a tracking system for the early identification of and intervention for at-risk students, and implement sustainable strategies to help bolster the first-time pass rates of students who were at risk for NCLEX-RN failure.¹⁷

They go on to argue that critical success factors for diverse students include "academic and financial support, mentorship, and the provision of peer and social support."¹⁸

Effects of NCLEX Focus on Students and Communities

In their 2014 *Journal of Nursing Education* article, Taylor, Loftin, and Reyes describe a brief period when their own institution, West Texas A&M University, was placed on conditional status by the Texas Board of Nursing after several years of NCLEX pass rates below 80 percent. From 2011 to 2013 the rate had rebounded to 95-97 percent, but the authors write that this experience compelled them "to challenge the use of the F-TPR [First-Time Pass Rate] as the premier, and often sole, indicator of high quality nursing programs."¹⁹

West Texas A&M's experience suggests that annual variability in pass rates can exert a major impact on programs. As Stephen Foreman argues, inconsistencies in how different states and accrediting agencies apply NCLEX first-time pass rates when evaluating programs may lead to programs missing their benchmarks by chance, rather than through verifiable poor performance. For instance, state thresholds for triggering oversight or consequences for lower NCLEX scores range from 75 percent to 100 percent first-time pass rates. He writes that small programs, in particular, can be at risk from major annual fluctuations in pass rates.²⁰

¹⁸ Murray, et al., 143.

¹⁹ Taylor, Heidi, Collette Loftin, and Helen Reyes, "First-Time NCLEX-RN Pass Rate: Measure of Program Quality or Something Else?" *Journal of Nursing Education*, 53.6 (2014), 336.

²⁰ Foreman, Stephen, "The Accuracy of State NCLEX-RN Passing Standards for Nursing Programs," *Nurse Education Today*, 52 (2017), 81.

In addition to the impacts that first-time pass rates exert on program design and student body composition, Taylor, Loftin, and Reyes note three institutional NCLEX strategies with particularly negative consequences for the nursing workforce:²¹

- Institutions in danger of falling below the NCLEX first-time pass rate threshold commonly reduce their cohort sizes and tighten admissions requirements despite ongoing need for new RNs.
- Progression policies, like the HESI-based strategies described by Spurlock (see above) eliminate struggling students once they are enrolled and have invested significant time and money into their programs.
- Emphasis on preventing students who might fail the NCLEX exam from gaining admission to the program or persisting long enough to take the exam also ignores the efforts that should be made to help students who fail in their first attempt to pass on their second try.

Most arguments for a more nuanced method of evaluating nursing programs than the first-time NCLEX pass rates concede that the credentialing exam is necessary even if its use to evaluate programs is potentially problematic. This is especially true of programs in areas with shrinking populations and declining applicant pools, where program leaders are faced with a choice: they can reduce their cohort size (and, thus, the number of nurses available to serve their region) to admit only the most qualified students, or they can work with the applicant pool that they have in order to maximize the number of nurses they produce, albeit with a lower NCLEX pass rate. Some nursing educators contend that all too often students who struggle academically and even fail the NCLEX on their first attempt go on to succeed as nurses.

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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.

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Source: Taylor, Lofton, and Reyes, 2104²²

²¹ List summarizes content from: Taylor, Loftin, and Reyes, 337-338.

²² Taylor, Loftin, and Reyes, 339.

²³ Figure summarizes content from: Taylor, Loftin, and Reyes, 337.

Taylor, Loftin, and Reyes observe that nonacademic factors strongly correlate to higher institutional rates of NCLEX-RN first attempt failure. These include a range of student types and attributes that are otherwise desirable within the profession:

Figure 3: Student Populations at Risk of Harm by Overreliance on First-Time Pass Rates

Male students, who comprised between 17 and 21 percent of the RN program population from 2011 to 2013, were 50 percent of the first-time NCLEX-RN test takers who failed the exam in those years.

Evidence from multiple studies dating back to the early 2000s suggest that African American and Hispanic students were less likely than white students to pass the NCLEX exam on their first attempt.

Students who have struggled academically in their programs and failed or withdrawn from one or more courses are much more likely to fail the NCLEX on their first attempt, even when they graduate from their programs.

While students who delay taking the NCLEX after graduating are more likely to fail than those who take it right away, studies show that students who failed the exam often felt pressured by family, employers, or their programs to take it when they felt unprepared.

Students with risk factors that have nothing to do with potential as a nurse are also at-risk. This includes those who work part- or full-time, those with family obligations, those educated at schools with limited resources, and first-generation students.

Source: Taylor, Lofton, and Reyes, 2014²³

O’Lynn argues that the overreliance on first-time NCLEX pass rate metrics may:

...impair some programs from holistically fulfilling their missions by diverting attention and resources away from developing student competencies in the caring and ethical arts, building teaching excellence and pedagogical expertise among faculty, and implementing innovative pedagogies and curricula that empower and facilitate success among diverse and nontraditional learners.²⁴

²⁴ O’Lynn, 195.

Alternative Evaluation Metrics

While Taylor, Lofton, and Reyes argue that “the F-TPR certainly has a role in informing faculty and constituents about the preparation of students for the licensing examination,” they call for NRB’s and accreditors to broaden evaluation metrics²⁵

Share of graduates who pass the NCLEX within two attempts following graduation.

Share of graduates who pass the NCLEX within one year of graduation, regardless of the number of attempts.

Percentage of admitted students who pass the NCLEX within two attempts following graduation.

Creation of a new metric that correlates graduation rates with pass rates.

Source: Taylor, Lofton, and Reyes, 2014²⁶

Other researchers argue in favor of a more nuanced, measured response to institutions whose pass rates fall below state standards on the part of NRBs. For instance, Foreman’s statistical analysis of state NRB pass rate requirements suggests that some programs make their state cutoffs or fail to do so “by chance.”

Variations within individual programs’ confidence intervals—which provide the range of potentially likely scores—could have resulted in a passing score for 28.4 percent of institutions that failed during the years that he studied, while another 17.4 percent of programs that passed based on their raw scores could just as likely have had a failing score for the year in question.²⁷

Foreman recommends that program reviewers and accreditors focus on the most severe instances of low performance while being mindful of the disproportionate impacts of annual variations in the pass rates of smaller programs:

The severity of violations probably matters as well. A program that has a 50% pass rate in any given year might well be the target for intervention. A program that has a 78% pass rate every year for five years may or may not warrant intervention and the intervention probably should not be as serious as for the programs with a 50% pass rate. Boards might also consider the impact of smaller numbers of students on the randomness of a particular program’s pass rate.²⁸

Foreman’s argument applies especially to institutions whose scores in a given year were classified as failing, but which had a confidence interval, or statistically likely range, that included passing scores:

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Most important, state boards should not conclude that every violation of the standard with a pass rate that is within an appropriate confidence interval of the standard merits intervention. Equally, state boards should not conclude that programs with pass rates above the standard but within an appropriate confidence interval of the standard have complied with the pass rate standard.

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Source: Foreman, 2016²⁹

Conclusion

Research conducted by nurse educators over several decades suggests that an overemphasis on NCLEX-RN first-time pass rates may be harming curricular innovation and student diversity within programs and has the potential to limit enrollments and constrain the supply of RNs entering the workforce. While researchers cited in this brief uniformly support the use of the NCLEX-RN as a professional licensure exam, they argue that scores should be interpreted with caution, seen within the broader admissions and demographic contexts in which programs operate, and modified by other indicators of program graduates’ professional success beyond their initial attempt to pass the NCLEX.

²⁵ Taylor, Loftin, and Reyes, 340.

²⁶ Taylor, Loftin, and Reyes, 340.

²⁷ Foreman, 83.

²⁸ Foreman, 84.

²⁹ Foreman, 85.

Caveat

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