Influencing Factors of NCLEX-RN Pass Rates Among Nursing Students

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Introduction

First time NCLEX-RN pass rates and successful student progression in a program are considered key indicators of quality in nursing programs and are used by state boards of nursing and accreditation agencies to assess quality. There have been many studies exploring the influencing factors of NCLEX-RN pass rate. Studies have focused on investigating relationships between demographic variables, students learning style and some nursing course grades. However, none of the studies have included all the nursing major course grades and HESI scores as influencing factors and their relationships to NCLEX-RN outcome in traditional nursing baccalaureate program. In addition, to our knowledge there are no studies that have examined students’ perceptions of NCLEX-RN pass rates.

Purpose

The purpose of this study is to understand the relationship between students’ factors including preadmission factors and academic factors which include all nursing major courses achievements related to NCLEX-RN outcome and to explore the students’ perceptions for NCLEX-RN success.

Methods

Setting: mixed public, baccalaureate nursing program, which admits nursing students in a junior year.

Two phase study: 1) quantitative analysis of predictors of first time NCLEX pass rates and 2) written survey to query students on their perceptions of NCLEX preparation and taking the exam.

Phase 1

Analysis of administrative data of traditional undergraduate nursing students admitted between spring 2012 and fall 2015 and completed the NCLEX-RN licensure exam prior to September 2017 (N=671).

Variables: Age on the date of licensing exam, gender, campus location, admission status, degree status, admission type(native or transfer), overall GPA at time of acceptance to the program; pre-requisite course GPA, and overall test of essential academic skills (TEAS) score.

HESI testing in the following course were also included as variables: Foundations, Mental Health, Obstetrics, Pediatrics and Complex Adult (HESI Exit exam).

Course grades from all major nursing courses including nursing foundation, health assessment, adult health nursing, pathophysiology-pharmacology, complex health, child health nursing, family health nursing, mental health nursing and community health nursing were included in this study.

Phase 2

The data for the second phase was collected from a 12 item survey that investigators developed and sent to 355 nursing program graduates who completed the program between spring 2015 and fall 2016. Of the 355 students invited to participate in this study, 102 agreed to participate for response rate of 28.73%. Incomplete surveys were not included in the analysis.

The survey included the following factors: preadmission factors, academic factors, HESI scores and students’ perceptions of why they did or did not pass the NCLEX.

Results

The sample of 671 students were admitted to the Nursing Program between Spring 2012 and Fall 2015. As seen in Table 1, 89% of the students were female, and 11% were male. The age when they sat for NCLEX-RN was ranged from 20 to 54 years old, and 91% of the students were less than or equal to 30 years old. The majority of the sample were Non-Hispanic White (79%), followed by Asian American (16%), and Asians (9.1%). About 10% of the sample pursued nursing degree as their second bachelor’s degree. Approximately 12% of the students did not pass the NCLEX on first attempt.

Female students were 2.5 times more likely to pass the NCLEX-RN than male students. Those who pursued second bachelor’s degree in nursing are 6.8 times more likely to pass the NCLEX-RN exam than those who pursued nursing degree as their first bachelor’s degree. Other demographic/admission factors, including age at NCLEX, GPA, and TEAS score were not significant in the model.

The model was significant ($LR 

Discussion

This study examines the significant predicting factors for NCLEX-RN pass in a baccalaureate program and explores the students’ experience of preparation for NCLEX-RN and test taking. Study findings showed that gender and participants’ degree status were significant factors among demographic variables in this study. There are only a few past studies that examined the relationship between gender and NCLEX-RN performance and the results were inconsistent. While we found students getting a second degree over 8 times more likely to pass the NCLEX exam, degree status was not consistently associated with passing the NCLEX-RN in previous studies.

Grade point averages in adult health nursing, family health nursing, complex health nursing were also significant predictors of passing the NCLEX-RN as was repeated course history. A previous study also reported that adult health nursing and family health nursing were significant predictors for standardized practice test for NCLEX-RN. It was noted that the foundation course was a significant factor for passing the NCLEX-RN among second-degree nursing students.

Adult health nursing HESI, family health nursing HESI and EXIT HESI exam scores were also found to be significant predictors for NCLEX-RN pass. It was interesting that both GPA and HESI score of family health nursing was a significant predictor for NCLEX-RN pass even after controlling for gender. This result emphasized the importance of delivering the contents to the students and ensuring that students understand and can apply their learning experience to the practice and test taking.

The findings from the second phase of this study present the description of what the students’ perspectives are prior to and after taking the NCLEX-RN exam. Findings presented that the purpose of the practice test for NCLEX-RN was helpful in passing NCLEX-RN.

Results from the survey of students indicated students’ perceptions of why they did or did not pass the NCLEX. The most commonly reported reason for not passing was anxiety and lack of preparation. The most common type of preparation was doing multiple practice questions and taking a review course in addition to the one offered by the program. Test anxiety has been known to be an important dynamic factor. Multiple practice questions and NCLEX-RN success, which was also found in the current study.

Limitations

While this study provides valuable information regarding influencing factors for passing the NCLEX-RN, secondary data analyses is inherently limited to available variables. Other possible significant predictors were not included in the model. In addition, survey results are a reflection of students in this particular program and may be difficult to generalize to other programs.

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