# A Qualitative Case Study of a High Performing Practical Nursing Program in Pennsylvania[1]

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## ARTICLE INFO

## ABSTRACT

The purpose of this qualitative case study was to explore the perceptions of what contributes to NCLEX-PN success rates within a high performing Practical Nursing program in Pennsylvania. To satisfy this purpose, the top rated Practical Nursing program in Pennsylvania was selected for the case study based upon a NCLEX-PN success rate of 100% for the past 11 out of 12 years. Thematic analysis of the data unveiled eight themes of program similarity, communication, collaborative intellect, meaningful purpose, passion, binding relationships, intellectual aerobics, and altruism which tell the story of one program's success.

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Practical Nursing (PN) administrators need to evaluate multiple factors including organizational climate and program success on the State Board of Nursing licensing examination National Council Licensure Examination – Practical Nurse (NCLEX-PN) to support recruitment, retention and achievement of students and faculty. Increasing the number of graduate nurses entering the workforce and the growing high standards set by the State Board of Nursing presents unique challenges for nursing educational programs. This case study analyzed research participants' stories of their experiences and how they perceived they successfully created a PN program that has achieved 100% NCLEX-PN pass rates for 11 out of the previous 12 years (Pennsylvania State Board of Nursing, 2016). The central phenomenon explored was the learning organization and the perceived components that link to program success. Conducting a case study analysis of one high-performing program may provide an exemplar model that may be replicated by other PN programs across Pennsylvania. In addition, understanding current successful organizational components could provide a platform for future growth and expansion of PN programs. The qualitative case study of a selected PN program was guided by one all-embracing research question:

1. What factors contribute to the program's success rates on the NCLEX-PN in a top rated Practical Nursing program in Pennsylvania as perceived by the program's stakeholders?

## Review of the Literature

There is limited research on practical nursing education in general across nursing literature; therefore, to supplement this literature review of predictors of academic success, research was expanded to include both Associate Degree nursing (ADN) and Baccalaureate Degree nursing (BSN) programs. Evidence from the expanded search adds strength to the findings and creates a rigorous foundation for the study. The following literature review investigated the future of practical nursing, academic and non-academic variables as predictors of success, students at-risk, and contributing factors to nursing program success. For the purpose of this study, program success is defined as consistently achieving high pass rates on the NCLEX-PN.

### Predictors of Academic and NCLEX Success

#### *Standardized Testing*

Many nursing programs are seeing an increase in student enrollment coupled with the challenge of fewer faculty, increased attrition rates, and failures on the NCLEX (Schmidt & MacWilliams, 2011). Nursing schools including practical nursing, ADN, and BSN programs, are academically demanding making program completion as well as NCLEX success challenging. Scores on standardized testing have been used as an inclusive measure during the acceptance process into nursing school and more recently as a prediction of NCLEX success.

Romeo (2013) conducted an ex post facto study to examine data from the records of ADN graduates during a three-year period

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which revealed the most significant predictors of NCLEX-RN success were the students' nursing GPA and the overall standardized assessment examination score. Brodersen and Mills' (2016) retrospective descriptive correlations compared the predictive accuracy of the Health Education Systems, Inc., Exit Exam (Elsevier) and the Assessment Technologies Institute's RN Comprehensive Predictor on NCLEX-RN success and found that the two examinations were statistically significant but weak predictors of success on the NCLEX-RN. On the contrary, Robert (2018) suggests a statistically significant relationship between preadmission examination scores and successful NCLEX-RN passage on first attempt and program completion had a positive correlation with preadmission science grades and HESI scores. Eickhoff (2016) suggests that standardized entrance examination scores were not good predictors of passing the NCLEX on the first attempt among PN students. Standardize testing used as admission criteria as well as throughout nursing programs may offer insight into the probability of program completion as well as NCLEX success; however, standardized testing is less precise on predicting failure.

*Grade Point Average*

Utilizing GPA from pre-nursing science courses as admission criteria is not an uncommon practice for many nursing programs. Traditionally, high school grade point average along with some format of a standardized test, such as the Scholastic Aptitude Test (SAT) or the American College Testing (ACT), are used to predict post-secondary success (Beauvais, Stewart, DeNisco, & Beauvais, 2014). Abel, Penprase, and Ternes' (2013) retrospective analysis revealed that non-nursing courses might be a highly predictive factor in student success. Lui, Codd, & Mills' (2018) findings revealed that using additional content areas of math, reading, and English in conjunction with science contributes significantly to the prediction of nursing school success. Similarly, Trofino (2013) proposed that grades in pharmacology and advanced medical-surgical nursing were statistically significant in relation to the probability of passing the NCLEX.

Scores from the first year medical-surgical course have also been correlated to NCLEX success as seen within Horton, Polek, and Hardie's (2012) study of ADN student success on the NCLEX. Eickhoff (2016) found that the higher a student's GPA, the greater the likelihood of passing the NCLEX on the first attempt among PN students. Crouch (2015) concluded that the predictor variables of prerequisite grade point average, National League for Nursing (NLN) pre-admission test score, and the Watson-Glaser Critical Thinking Appraisal score were significant in predicting success in a BSN program. Strickland and Cheshire (2017) found no correlation between the traditional admission criteria of grade point averages with the potential admission criteria of emotional intelligence or critical thinking scores to predict student outcomes. Therefore, it is necessary to review the literature on student's personal attributes and extraneous factors in predicting academic success.

*Personal Attributes and Extraneous Factors*

Williams, Bourgault, Valenti, Howie, and Mathur (2018) identified the variables significantly associated with NCLEX-RN success to include quality of faculty advisement, quality of interactions with nonteaching faculty, and perception of barriers, such as lack of finances. Understanding that personality traits and attributes may contribute to student nurse success many schools of nursing include an admission essay as part of the application process. Peterson-Graziose, Bryer, and Nikolaidou's (2013) descriptive correlational study of first-semester ADN students indicated that negative self-esteem was significantly associated with student attrition. Hendricks and Krothe (2014) suggest that the interview process results in the

inability to reconfigure the composition of the student body with regards to gender and ethnicity nor improve retention or NCLEX pass rates. However, Pitt, Powis, Levett-Jones, and Hunter (2012) found significant relationships between student's personality qualities of self-control and resilience with academic performance. Life stressors influencing academic success is further supported by Marshall (2012) who identified challenges specific for the student practical nurse as role commitments, relationship challenges, financial strain, personal growth, and health.

In the face of increasing standards for the minimal pass rate on the NCLEX exam, nursing programs need to ensure that students accepted into the program have the ability to rise successfully to the academic challenge. The previous studies revealed many contradictions as to predictors of academic success, most of which were preadmission criteria, GPA, standardized test scores, and personality characteristics. Therefore, a significant gap in the literature exists between the organizational climate of the nursing program and student academic achievement and ultimate NCLEX success.

**Methodology**

To identify and analyze how one school of nursing has consistently achieved high success rates on the NCLEX-PN, a qualitative case study design based on Merriam's (2009) model was implemented through the use of in-depth semi-structured interviews and artifact analysis for the research. The study used semi-structured interviews and existing literature to explore the perceptions of administrators, faculty, staff, and students on factors that contribute and hinder overall program success. The in-depth semi-structured interview was appropriate for the study because it explored how members of the practical nursing program interpret the positive elements of the academic program. Furthermore, insight from the semi-structured interviews provided knowledge on the organizational climate of a high performing nursing education program.

Multiple artifacts such as the Practical Nursing curriculum, program handbook, program philosophy and mission statement, program student attrition records, and program policy and procedure manual were analyzed in comparison to the interviews to add rigor to the findings. Combining multiple methods of data collection is a major strength of case study and provided methodological triangulation (Merriam, 2009; Merriam & Tisdell, 2016). The literature analysis grounded in organizational theory, specifically Senge's perspective on Systems Thinking illuminated the theoretical framework (Senge, 2006). Analyzing existing documentation was appropriate since it substantiates and guides interview data (Yin, 2016).

**Data Collection**

Following the approval of the institutional review board, administration, faculty, staff, and students were emailed details regarding the interview and data collection process. The total interview participants included the Dean of Allied Health Sciences, one employer of recent graduates, the four Master's degree prepared PN faculty, one staff member, 15 out of the 20 students currently enrolled in the program, and two alumni who graduated within the past five years. Five students declined to participate in the study. Two out of the 10 alumni responded to the email requests to participate in the study.

A semi-structured interview approach was conducted allowing for the opportunity to explore deeper meaning from the participant responses. Semi-structured interviewing may be preceded by observation and informal, unstructured interviewing to allow the researcher to develop a deeper understanding of the topic necessary for developing more relevant and meaningful questions (Bernard, 2017). During the interviews the researcher reiterated that participation in the study is completely voluntary and the decision to