General Systems Theory Guided Evaluation of a Remediation Policy for Students Preparing for NCLEX-RN

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Nursing schools are operating at full capacity in order to address an impending shortage of registered nurses in the United States that may exceed one million by the year 2024 (AACN 2017). In 2030 the global healthcare workforce is anticipated a shortage of 15 million qualified individuals (Liu, Goryakin, Maeda, Bruckner, & Scheffler, 2017). Meeting this need for registered nurses is complicated by a shortage of nursing faculty that exits not only in the United Stated but globally (Nardi & Gyurko, 2013; Vandyk, Chartrand, Beké, Burlock, & Baker, 2017). The need for resources in terms of both faculty and students will challenge health care professionals into the near future. This pressure on scarce resources elevates the importance of producing well-educated nursing candidates for all stakeholders including nursing faculty, nursing students, health care systems and the public at large.

Although these statistics appear daunting, there are actions that can be taken by individual nursing programs to facilitate student achievement. Students who are considered academically prepared to enter a nursing program must be given the support and resources for successful completion. This success is measured in the United States, its territories and Canada by passing the NCLEX-RN. This exam represents a standardized entry level competency for registered nurses (NCSBN 2018). Schools of nursing have an obligation to develop and implement policies designed to move students toward this success. Once policies are in place it is critical that faculty use systematic methods to evaluate such policies for effectiveness in achieving the desired outcomes. General systems theory provides a theoretical framework for this systematic approach (Bertalanffy, 1969). In nursing this theoretical framework is referred to as the nursing process. Beginning with assessment, data is collected and interpreted. A diagnosis or judgement is formulated, and interventions are planned. A critical step in this process is evaluation where the collection of quantitative date is essential (Potter, Perry, Stockert, & Hall, 2017). The process of evaluation and adjustments in general systems theory is applicable to nursing education and can be applied across programs to improve results and increase the number of qualified candidates entering the workforce (Simon, McGinniss, & Krauss, 2013).

Nursing faculty in a BSN program in the Northeastern United States assessed program outcomes and identified a weakness in NCLEX-RN pass rates. A deficiency of student preparedness for NCLEX-RN was diagnosed as the problem in need of intervention. Nursing schools frequently utilize commercially prepared standardized exams to assess student readiness for NCLEX-RN and to identify students in need of remediation. The HESI E2 Exit Exam distributed by Elsevier is one such exam. Built into this exam is a student-centered online remediation tool that allows students to customize their study based on exam results. Based on the availability of the program and the student centered commitment it was decided to develop a remediation policy requiring students to complete a prescribed number of remediation hours based on their earned score on the HESI E2 exit exam. Remediation hours were completed prior to the student sitting for a second version of the Elsevier HESI E2 exit exam.

The purpose of this study was to evaluate the effectiveness of the remediation policy implemented for these senior level nursing students. Utilizing general systems theory, an analytic policy review was executed. Once a policy is created as a result of a systematic assessment of a problem, it is necessary to evaluate the policy for effectiveness. This ex post facto analysis addresses a gap in the literature of high quality quantitative remediation policies that are reproducible throughout multiple programs. Using multiple regression this study explored the relationship between utilization of the Elsevier online remediation resource and scores on the HESI V2 Exit Exam for senior-level nursing students. Variables explored were GPA, HESI V1 scores, gender, cohort (traditional or second degree), semester (spring,

summer, or fall), and hours of remediation. GPA significantly predicted 15% to 18% of the variance in scores on the HESI V2 exam. When additional variables are entered into the model, the predictive value of GPA was reduced to 3% to 9%. HESI Version 1 significantly predicted 3% to 18% of the variance in scores on the HESI V2 while controlling for GPA. Completion of online remediation hours did not significantly contribute to scores on the HESI V2 Exit Exam for senior-level nursing students in this northeastern BSN program. This study's findings suggest that GPA is the strongest predictor of HESI E2 scores explaining 13% of the variance.

Faculty need to develop and implement policies to facilitate learning and promote student success while remaining mindful of scarce resources. A critical step in policy implementation is analytical analysis of effectiveness. Despite developing and implementing a policy of required online remediation hours, there was no statistically significant relationship between remediation hours and HESI E2 scores. As described in general systems theory this process of assessment and evaluation is an essential component toward realizing the goal of successful outcomes for all involved stakeholders.

Title:

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Keywords:

General Systems Theory, NCLEX-RN and Policy

References:

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Abstract Summary:

This ex-post facto quantitative study explored the relationship of GPA, HESI V1 scores, gender, cohort, semester, and hours of remediation on scores of HESI V2. Guided by general systems theory, multiple regression was used to predict the percentage of variance associated with each of the predictor variables.

Content Outline:

I. Introduction

A global shortage of qualified nurses combined with a lack of nursing faculty, challenges nursing education to work efficiently to increase the success of academically prepared nursing students. Creating and implementing academic policies to facilitate positive outcomes is under the purview of faculty responsibility. Evaluation of implemented policies allows for the efficient use of resources to best meet society's need for qualified registered nurses.

II. Body

Main Point #1

Lack of educational resources requires faculty to develop and implement solid academic policies to facilitate learning and improve outcomes. Creating relevant policies provides a framework for students and faculty as they journey through the academic process.

Main point #2

Once policies are created and implemented there is a need for systematic evaluation to determine if the policy is yielding the desired results. Analytical data need to be collected and examined so that informed decisions about effectiveness can be made.

Main point #3

General system theory is a reliable tool to guide faculty in this systematic evaluation. Assessment, implementation and evaluation correspond with the process that nursing has used for many years to guide decisions and promote sound clinical judgement.

III. Conclusion

Creating reliable educational policies is an important function of nursing faculty. Policies must be geared toward achieving positive student outcomes while being mindful of scarce resources. Policies must then be evaluated in a systematic way to determine effectiveness and provide analytic data to facilitated informed decisions.

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