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Span-of-Duty Grades and Students' Regional Examination for Nurse Registration (RENR) Outcomes in Jamaica

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Abstract

The Regional Examination for Nurse Registration (RENR) is the licensure examination for registered nurses in Jamaica and other Caribbean Community and Common Market CARICOM territories. However, qualification to sit for this examination must be preceded by the successful completion of four years of nursing education in an approved nursing institution and successful completion of the nursing practicum, commonly known as the Span of Duty (SOD) in Jamaica. The purpose of this cross-sectional retrospective study, guided by Kolb's experiential learning theory and Benner's from novice to expert theory, was to examine the relationship between SOD clinical intensive examination and first-time RENR outcome between 2017 and 2019. Archival data were collected from the files of 46 first-time test-takers from one baccalaureate nursing school in Jamaica. Binary logistic regression analysis was carried out to examine the relationship which indicated that first-time pass rates were directly related to higher SOD averages. The model indicated that 83% of failures were accurately predicted based on SOD grade/score, while 80% of passes were predicted based on SOD grade/score. The overall accuracy percentage of observed and predicted outcomes attributable to the predictor variables was 82%. Further cross-sectional studies with current and retrospective data are needed to unearth the full impact of SODs on RENR outcomes. There is need for greater partnership between the Nursing Council of Jamaica, schools of nursing and researchers who are all seeking to bring about change in the delivery of nursing education and ultimately health care which affects positive social change.

Keywords

Span-of-Duty, Grades, Nursing, RENR, Jamaica, Students, Licensure

1. Introduction

Schools of nursing within the Caribbean region have adopted an end-of-program clinical practicum examination SOD model. The model is used to evaluate the ability of individual students to efficiently integrate theory within the practice environment [1] [2]. The evaluation occurs before sitting for the Regional Examinations for Nurse Registration (RENR). SOD involves deliberate and extensive exposure to the patient care setting's rigours and other conditions germane to students' transition from pre-licensure to licensure [3]. The end-of-semester clinical intensive/tour-of-duty is an end-of-nursing course clinical evaluation, executed throughout the Bachelor of Science in Nursing (BScN) curriculum as a summative method of determining student preparedness for progress to the next level until students arrive at the peak of their training. Jamaica and other Caribbean territories have also long adopted the end-of-program SOD model [4], evaluating students' clinical readiness for the RENR. Students' success in this arena has been deemed the bastion of a transition from novice to beginner RN. However, the integrity of these evaluations had not yet been empirically tested. Therefore, I examined these results to determine their relationship to the RENR outcome.

The RENR is the qualifying standard for registered nurse (RN) status in Jamaica and other CARICOM countries. Therefore, nursing schools are tasked with educating undergraduate baccalaureate students who meet the minimum standard necessary to sit for these examinations. The RENR facilitates a reputable and uniform standard of appraising and analyzing student preparedness for regional nurse registration [5]. SOD represents the clinical immersion component of education and training within the regional nursing education curriculum, designed to bridge the theory-practice gap [3]. The SOD grade is a summative percentage ascribed to the candidate following the assessment of stipulated competencies such as competence in documentation; communication; formulation and utilization of a nursing plan of care specific to clients with prioritization of their need/s; medication administration utilizing the rights of administration; demonstration of ability to maintain a sterile environment when required (e.g. application of a sterile dressing) among other specified competencies. Each competency is ascribed a numerical grade and evaluated according to the level of competence demonstrated [5]. The examination is time sensitive, with four [4] to four and a half hours allotted to each candidate. The implications for positive social change are embedded in the findings of this study, which can be used to assist educators and their students in preparation for the clinical and theoretical sitting of the RENR.

2. Background

Nursing education in Jamaica has evolved since 1894, when the first nurse training program was initiated. Students from rural Jamaica would be engaged in hospital-based training at Kingston Public Hospital [6]. Over the next 26 years, the program became more formalized. Following several initiatives to improve nursing education and the quality of patient care in the region, a partnership with the Pan

American Health Organization (PAHO) was formed. The nursing councils of the region, recognizing this need, collaborated, and a new national curriculum formulated by nurse educators was implemented in 1989. The new national curriculum served as a bridge from theory to practice. Students were introduced to the practice setting shortly after theory sessions [6], based on a program that catered to the specific needs of the region's people. At the culmination of the 3 years, nursing students then sat the RENR.

The RENR had its conception in 1970 by the chief nursing policymaking organization, the Regional Nursing Body (RNB) in CARICOM states [5]. The process underwent many years of fine-tuning, planning, pilot studies, and council meetings and was first executed in 1993. Three schools, Kingston School of Nursing, EXED Department of Nursing, and Northern Caribbean University Department of Nursing, participated in the first RENR sitting. The examination marked the transition from a national emphasis to a regional/CARICOM-wide focus. This transition facilitated the reciprocal registration of qualified nursing staff among member states within the region and was viewed as a better option for Caribbean nurses.

The objective of RENR is to evaluate the revised nursing curriculum based on core competencies and global standards for the education of professional nurses in the Caribbean [5]. Four primary guideline documents govern the RENR process: the Blueprint, the Administrative Manual, the Item Writing and Examination Process document, and the B.Sc. curriculum [5].

Multiple studies have been carried out in non-Caribbean territories, highlighting various clinical models, the role of predictive exams, preparation for exams and the number of clinical hours required to be successfully prepared for National Council Licensure Examinations (NCLEX) [7]-[11]. However, these studies do not apply to Caribbean nurse educators and students. Educators and administrators have long been concerned about the relationship between the students' final clinical examinations and their role in their outcome at the Regional Examination for Nurse Registration RENR). However, there currently were no Caribbean-based studies that contained results about a relationship between SOD intensive grades and RENR outcomes.

2.1. Problem Statement

There has been a lack of evidence about the relationship between the SOD and the RENR. Determining if the SOD impacts the RENR success rates can assist nurse educators in evaluating the curriculum and the RENR preparation requirements for students [5]. The robustness of an accredited BScN program is assessed by the academic achievements of its student population, which empirical data should guide [11]-[13]. Stakeholders such as hospital administrators, other health care offering institutions, industries and business entities eagerly await the graduation of nurses, who are skilled practitioners in the art and science of patient care, advocates for change, competent, evidence-based practitioners of new and emerging

trends, schooled in decision making and critical thinking to meet the demands of a rapidly evolving health care setting [14]. These demands include increased patient empowerment, technological advancement (3D printing, GPS tracking, wearable biometric devices), increased outpatient-centred health care, along with policy and procedural changes. The skill, competence, and prowess of practitioners must be grounded in the science that guides the preparation of these nurses.

SOD or clinical intensive is a modality integrated into nursing programs in the Caribbean region to bridge the theory-practice divide by intensifying students' clinical engagement to foster their transition to post-licensure practice. Students validate their application of theory into practice during this capstone clinical experience while faculty and preceptors assess their licensure readiness [9] [15]. A SOD/clinical intensive is structured towards the end of the semester of the nursing program but is also distributed across varying periods [9]. However, no studies have identified the impact of clinical immersion on the RENR outcomes within the Caribbean.

Over the years, the Caribbean region has maintained a transition to practice period, preceded by mock exams used to assess academic readiness allowed immediately by the SOD. This process has arguably assisted students in preparation for licensure. Therefore, it is assumed that a positive relationship exists between successful completion of the SOD and success in the RENR. A study conducted by Ironside *et al.* [16] revealed a paucity of information regarding the contribution of clinical training to practice readiness and overall student knowledge, giving credence that not enough is known about the role of clinical intensives/span-of-duties on licensure readiness in the Caribbean.

In the United States, nursing schools across different states have requirements regarding clinical experience for their specific programs. Some require several hours of clinical exposure, while others base their assessment on students' advancement to graduation and NCLEX first-time success [17] [18]. Researchers have also reported that higher numbers of hours of clinical exposure are required in nursing schools in the United Kingdom [19]. However, little was known about the relationship between clinical immersion grades and licensure exam pass rates. In this study, I filled a gap in the evidence. By understanding the relationship between clinical immersion grades and licensure exam pass rates, nurse educators in the Caribbean can develop educational programs for future nurses.

2.2. Purpose of the Study

The purpose of this quantitative, correlational study was to determine if there is a relationship between SOD grades and students' first-time RENR test-takers' outcome (pass/fail) in baccalaureate (BSc) nursing students in Jamaica. I accessed historical data from one school of nursing in Jamaica's archived records to conduct a retrospective analysis to examine the relationship between SOD grades and RENR outcome (pass/fail). I randomly selected a sample of students' grades sitting the examination for the first time between 2017 and 2019 and analyzed using bi-

nary logistic regression to determine whether a relationship exists.

3. Research Questions and Hypotheses

The following research questions guided the study:

Research Question 1 (RQ1): What is the relationship between the SOD clinical intensive grade and first-time (RENR) test-taker outcome (pass/fail) in Jamaican BSc nursing graduates? Null Hypothesis ($H_0$1): There is no relationship between the SOD clinical intensive grade and first-time (RENR) test-taker outcome (pass/fail) in Jamaican BSc nursing graduates. Alternative Hypothesis (H_a1): There is a relationship between the SOD clinical intensive grade and first-time (RENR) test-takers' outcome (pass/fail) in Jamaican BSc nursing graduates.

3.1. Theoretical Framework

I used Benner's (1984) novice-to-expert theory and Kolb's experiential learning theory as the theoretical framework for this study. Benner posited that definitive clinical decision-making arises from the nurse's meaningful interactions within an environment (clinical setting) that fosters her professional conduct's social embedding [20]. Benner stated that mature students can engage in more complex tasks while applying global knowledge by drawing from previous experiences. Benner also emphasized social embedding as one of the seven domains necessary to achieve clinical competence, which the nurse gains across a continuum of five steps: novice, advanced beginner, competence, proficiency, and finally, expertise.

Furthermore, Kolb's experiential learning theory (2015) can be used to understand the learner's previous experiences as the best teacher for the student. Kolb's experiential learning theory results in the affective, cognitive, and psychomotor embedding of knowledge, concretizing application and enhancing competence [21]. Both theories offer a unique perspective on what is necessary to ensure student success and provide helpful insight into the intricacies of preparing student nurses for licensure. These theories indicate a reasonable expectation that the independent variable (SOD clinical intensive grades) will influence the dependent variable (first-time RENR outcome) due to the social embedding of the domains necessary to achieve clinical competence and the endorsement of the learners' previous experience as the best teachers.

3.2. Nature of the Study

I accessed archival data from one school of nursing in Jamaica's database to conduct a retrospective analysis of SOD grade and examined their relationship to first-time RENR test-taker outcomes (pass/fail) of BSc nursing graduates. This quantitative study provided evidence of the relationship between the SOD clinical intensive and first-time success at the RENR. I examined data between the years 2017 and 2019. I chose 2017 to 2019 because the COVID-19 pandemic impacted the 2020 and 2021 examination periods, and some changes were made to accommodate the challenges students faced during the pandemic.

3.3. Assumptions

My primary assumption for this study was that all information gathered for conducting the study will be accurate, credible, factual, reliable, and valid and that the chosen sample represents the population under observation, which, according to Hayden *et al.* [22], are essential tenets of a good study. I assumed that students who experienced difficulty executing the clinical examination desire to pass the RENR.

3.4. Limitations

There were some limitations considered in the interpretation of the findings. It is noteworthy that the data was collected from a secondary source, and I was not the primary person attending to the collection of data from the files. The partner institution designated an internal individual to collect the data, because of protocols related to the protection of and the privacy of student-related information. Therefore, the personal nuances or preferences of the individual overseeing the process before data dissemination and storage may subject the results to inter-rater reliability issues, which are integral components of internal validity [23]-[25]. Inter-rater issues and personal nuances or preferences cannot be quantified using secondary data [26]. The variability of data across the three years (e. g. the number of students sitting the examination within a given year) was also a limitation of the study due to its effect on the overall sample size. The results were not compared with any other formative results students may have achieved before the SOD assessments. Other formative results did not qualify as SOD/clinical intensive grades, which is a summative score. The findings do not reflect the results of other non-first-time test-takers (e.g. second, third and final attempt test-takers). Therefore, further research is necessary to provide this information.

Potential confounder variables included age and gender, which also affected the study's validity, and distorted associations and overall results. Therefore, their (confounders) influence was considered as a possible limitation and appropriate measures were taken to address, measure and report them during the study analysis [25] [27]. Studies (e.g., Mac Giolla & Kajonius, 2018) have shown that women and girls exhibit more conscientiousness, motivation and better study habits than their male counterparts, especially at the post-secondary level, which may also be a contributing factor to better exam results. Another study by Getahun (2022) showed that older students had better academic GPA's which is keeping with my findings., Confirmation bias did not arise despite the researcher's familiarity with the field and content, because I had no other contact with data or information about the institution or the files from which the information was extracted. This type of bias involves favouring information that appraises the researcher's preconceived ideas. This was avoided by keeping the content anonymous, remaining open-minded and considering that all data are essential when evaluating the hypotheses. Being cognizant that the hypotheses can be refuted during analysis was also a mode of addressing this bias. The study's quantitative correlational design

also significantly reduced the influence of these limitations on the study's results, improving its external validity.

4. Literature Review

Currently, there is little evidence to support the existence of a relationship between the SOD and the RENR. This was a problem because nursing education is grounded in fact-checking and consistently adapting its practice based on sound empirical data, rendering it an area warranting immediate attention. The purpose of this quantitative, correlational study was to determine if there is a relationship between SOD grades and students' first-time RENR test-takers' outcome (pass/fail) in BSc nursing students in Jamaica. Undergraduate nursing education prepares transitioning students to practice in an environment that satisfies an increasing demand for competent nurses. However, variability still exists across many countries regarding the nature, quality, and quantity of clinical experience necessary to equip nurses with the requisite skill sets of nursing competence [10] [14] [17] [18] [26] [28]. Candidates who want to pass qualifying examinations in countries like the United States have invested significant sums of money attempting to find the best strategies to assist nursing graduates in passing the NCLEX-RN on the first attempt. Studies conducted by Havrilla *et al.* [7] [10] [11] [27] revealed that multiple factors contributed to the success of first-time examinations among students. Despite these studies, there remains a paucity of current literature delineating a relationship between success at the licensure examinations and clinical immersion (SOD) intensive success.

For jurisdictions like Jamaica and other Caribbean territories that use clinical practicums as their transition to practice modality, the final practicum represents the official sealing or bridging of the knowledge-practice gap [20] for many students. Clinical competence constitutes the hallmark of safe, entry-level practice [20], gaining said competence through the clinical practicum. Clinical experience may be the best way to document that nursing independence has occurred and thereby induction into the professional team is achieved [21]. However, without empirical evidence, it is difficult to assume that such clinical experience and the resultant sociocultural integration have any significant bearing on attaining better clinical intensive practicum (SOD) grades or ensuring first-time success in the licensure examinations. Many envision licensure success, especially among first-time candidates, as an essential criterion for ratifying baccalaureate nursing programs [28] [29]. CARICOM countries remain behind other countries in sufficient research-based studies to guide practice and education in the region. The Caribbean produces some of the finest nurses across the world, leading to growing zeal to follow the evidence in the education and training of nurses in the Caribbean [30]. Therefore, the need for research and a body of supporting evidence to guide nursing practice has arisen. The problem that I identified in this study was the lack of evidence of a relationship between the SOD grades and the RENR pass rate for first-time candidates.

4.1. Methodology

The target datasets are the records of first-time RENR test-takers who graduated from baccalaureate programs of nursing school in Jamaica between 2017 and 2019. Therefore, there are approximately 1200 to 1500 Jamaican test-takers in the intended dataset. Dataset selection involved files of students who tested for the SODs during the final semester of nursing school and were subsequently recommended to test for the RENR after passing the clinical examination. Therefore, the intended dataset would have provided the information required to address the research questions under study from a broader perspective. However, without access to the intended dataset due to denied access, I resorted to using the only dataset available for examination. Students sit for the RENR examination approximately 6 weeks after the clinical examinations (SOD).

The data from the files of the test-takers of the partner institution covering the period under investigation (2017, 2018, and 2019) were abstracted internally and documented on the Archival Data Demographic Information Sheet and sent to me via email. I electronically downloaded, counted, and secured them using the three approved methods. The actual number of responses was 86. The data abstraction instrument was then printed, rendering two formats, paper-based and electronic. I sorted and separated the responses of first-time test takers from non-first-time test-takers, removing 30 files which did not fit the inclusion criteria. I then used stratified random sampling technique to select responses from the separated response pool. I determined that a sample size of no less than 45 responses was necessary for representation of the population. I used this number because the degree of accuracy required from the data analysis by considering an acceptable margin of error α 0.05 and a confidence interval of 95% required a sample of over 30 responses. I also considered the variability of the population, which dictates that in response to increased variability in the population, the sample size should be increased. The target population had over 10 different age groups strata (subgroups); therefore, the sample size should be increased to adequately represent each group. I also considered the sampling ratio, which recommends that smaller populations require a larger sampling ratio [31]. I also used oversampling to ensure that the minimum count of respondents was met. Since the population of students sitting the RENR across the three years under investigation totaled 86 test-takers. I intended that the sample should be at least 65% representative of the total population. Each age group (20 to 52) appeared at least once in the strata for a quota of responses would allow each response to be selected once separated the responses into t strata. The total population I selected was 52. Based on calculated effect size and G*power analysis, 46 responses represented 84% of the population under investigation. I sampled from the population, noting the same responses in electronic format.

I calculated the sample size using statistical power analysis and the G* power calculator as recommended by researchers. I calculated the sample size using logistic regression with an α (alpha) of 0.05, power of 0.8, and an odds ratio of 1.3,

yielding a sample size of 46.

4.2. Results

Descriptive Statistics of the Sample

I examined the relationship between SOD intensive grades and first-time RENR test-taker outcomes (pass/fail), by measuring the statistical correlation between the variables. I collected data after securing a data release agreement by emailing the partner institution, which collected and de-identified the data internally before emailing it to me. I operationalized each variable and analyzed them using SPSS software version 28. The dataset had a total of 52 files. Most of the test-takers' ages fell within the 24 to 26 age range and were from an all-female cohort, accounting for just over 22% of first-time test-takers. The percentage of men pursuing nursing in Jamaica remains significantly low, accounting for approximately 1.5% of the nursing population, which is reflected in my sample (Figure 1 and Table 1).

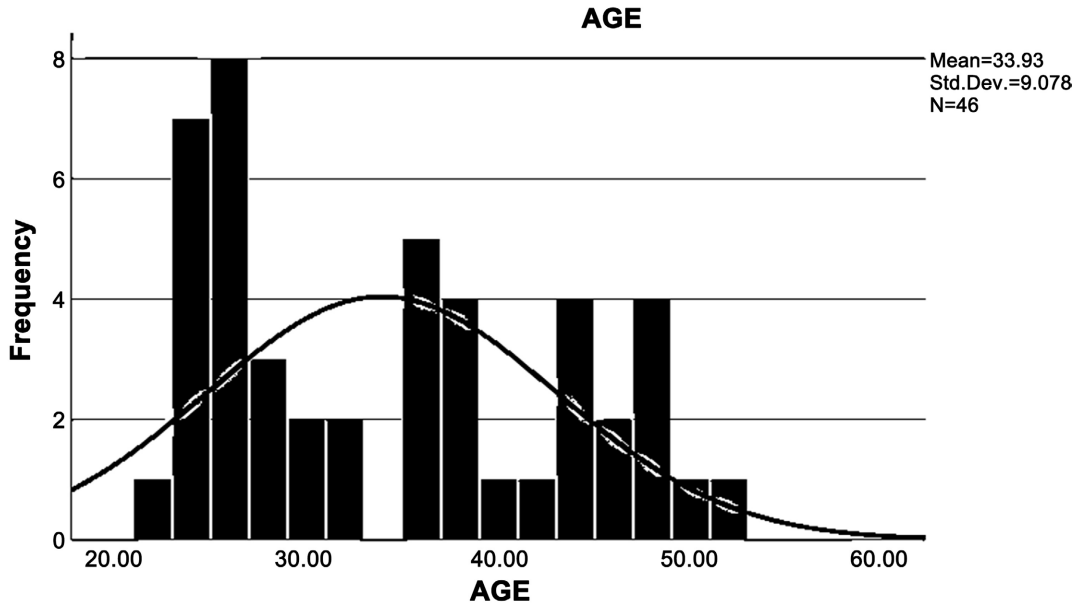

Figure 1. Study participants by age.

Table 1. Study participants by RENR outcome.

RENR outcome					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	fail	24	52.2	52.2	52.2
	pass	22	47.8	47.8	100
	Total	46	100	100	

4.3. Evaluation of Statistical Assumptions

I evaluated the statistical assumptions for logistic regression and for the existence

of linearity. The first assumption of logistic regression is linearity between the IV and log-odds. I used the Box-Tidwell transformation to test for linearity of the logit [31]. This assumption was not violated, as the test showed that there was no significance in the logit; lnage $p > 0.05$ (0.996) and lnsod $p > 0.05$ (0.999), indicating that the assumptions of linearity between the variables of SOD grades, age, and RENR outcomes were met [32]. Therefore, there was a linear relationship between the variables in the Casewise List.

I examined the data for extreme outliers. The presence of a small sample size and nonparametric testing, which are less sensitive to outlier data, did not give rise to extreme outliers. A "Casewise" plot was not produced because no outliers were found. Therefore, outlier data did not skew the analysis. The second assumption is multicollinearity for logistic regression. I evaluated multicollinearity by using the Variance Inflation Factor (VIF) to check for correlation among the independent variables (see **Table 2**). The VIF was 1.000 which is <5 [31] [33], therefore, I did not remove any of the variables as multicollinearity did not occur **Table 3**, also shows that collinearity tolerance is >0.10, indicating that 100% of the variance in students' age are unique to the student's age and are not accounted for by the other predictors in the model.

Table 2. Table of coefficients.

Coefficients[a]							
	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1 (Constant)	56.691	4.862		11.659	<0.001		
AGE	0.172	0.140	0.347	1.225	0.246	1.000	1.000

[a]Dependent Variable: SOD grade.

The next assumption is independence of observation/no autocorrelation: I evaluated for the presence of autocorrelation (−1 to 1) by examining the results of the Durbin-Watson test [34] and the use of a plot of residuals against time. The Durbin-Watson test was 0.552, indicating that there was positive autocorrelation between the variables. Therefore, although the sample was small, it was able to predict the results of the larger sample. The assumption of logistic regression is a large sample size: I ran an a priori power analysis on the intended population (1200 - 1500) using G*Power analysis, which showed the sample size should be 721 files with an alpha of 0.05, power of 0.8 and odds ratio of 1.3. Although the random sample of 46 is representative of the larger population (>1200), the small sample increases the possibility of a violation of this assumption. However, the actual statistical power from G* power a priori analysis $(1 - \beta$ err prob) = 0.9500 and the α err prob = 0.03. I concluded that the sample was large enough to represent the larger population. The next assumption is to check for highly influential outliers, which, if present, indicate an assumption violation. I used Cook's distance to as-

sess the presence of outliers. Based on the minimum Cook's distance of 0.000 and a maximum of 0.657, neither of them is greater than 4. There are no influential outliers that could skew the results or findings. The last assumption is that there must be a binary response variable. The response (DV) variable was RENR outcome, which was dichotomous [33], requiring responses to be in one of two designated [33] categories (pass/fail) were binary.

4.4. Statistical Analysis of Findings

The research question was: What is the relationship between the SOD clinical intensive grade and first-time (RENR) test-taker outcome (pass/fail) in Jamaican BSc nursing graduates? The null ($H_0$1) hypothesis stated that there will be no relationship between the SOD clinical intensive grade and first-time (RENR) test-takers' outcome (pass/fail) in Jamaican BSc nursing graduates. The alternate hypothesis (H_a1) was: There is a relationship between the SOD clinical intensive grade and first-time (RENR) test-takers outcome (pass/fail) in Jamaican BSc nursing graduates. I employed nonparametric statistical methods to decide whether to accept or reject the null hypothesis. The results of the nonparametric tests revealed that the regression model used for analysing the data (as indicated by the Chi-Square statistic of goodness of fit, $p < 0.009$, where statistical significance is $p < 0.05$) adequately described the data (see **Table 3**), indicating a good fit. The Hosmer and Lemeshow's Test also confirmed this finding, $p > 0.943$, indicating non-significance, supporting the assumption that the model adequately describes the data (see **Table 4**).

Table 3. Model coefficients.

Omnibus Tests of Model Coefficients				
		Chi-square	df	Sig.
Step 1	Step	11.480	3	0.009
	Block	11.480	3	0.009
	Model	11.480	3	0.009

Table 4. Hosmer and Lemeshow test.

Step	Chi-square	df	Sig.
1	2.855	8	0.943

The RENR outcome categories (pass/fail) were accurately predicted by the independent variable SOD grade/score. The model indicated that 83% of failures were accurately predicted based on SOD grade/score, while 80% of passes were predicted based on SOD grade/score. The overall accuracy percentage of observed and predicted outcomes attributable to the predictor variables was 82%. The model exhibits good Specificity = 83.3% and Sensitivity = 80%.

The relationship between the predictor variables (Student Age, Student Gender,

and SOD student scores) and the outcome variable (RENR outcome) were evaluated in the Variables in the Equation table (see Table 5). For the variable-Student Age, the $\beta = 0.297$ and the Exp (B) = 1.346, p = 0.347, 95% CI [0.725, 3.104]; indicating that increased student age increased the probability of predicting a favorable RENR outcome (*i.e.*, pass), because the odds ratio was >1. Additionally, for the variable-Student Gender, $\beta = -20.310$ and the Exp (B) = 0.000, p = 1.000, 95% CI [0.000]; indicating the probability of gender as a likely predictor of RENR outcome (pass) was negligible, because the odds ratio was <1. Student age was also 1.5 times more likely to affect RENR outcome than gender, which was not as effective as age in predicting RENR outcome. However, the statistics also showed the variable-SOD student score, $\beta = 1.133$, and Exp (B) = 3.104, p = 0.394, 95% CI [0.229, 42.098]; indicating that SOD scores were three times more likely to predict a positive RENR outcome (pass), than the other two variables. The confidence intervals according to Spearman's rho of 0.774, p < 0.002 and 95% CI [0.373, 0.931] also indicate a near perfect correlation (between SOD score and the predicted probability of RENR outcome/pass.

Table 5. Confidence intervals of Spearman's rho.

			95% Confidence intervals (2-tailed)[a,b]	
	Spearman's rho	Significance (2-tailed)	Lower	Upper
SOD student score-Predicted probability	0.904	<0.001	0.657	0.976

[a]Estimation is based on Fisher's r-to-z transformation. [b]Estimation of standard error is based on the formula proposed by Caruso and Cliff.

5. Interpretation of Findings

The findings confirm that the SOD intensive grade has a significant influence on RENR outcome. Success in clinical practicum often translates to professional development as the final practicum represents the last component in preparing for licensure examination and transition to work [34]-[36]. My study aligns with the findings of Saukkoriipi *et al.*, as the descriptive findings confirm that the practicum period helped prepare students for licensure (RENR).

In my study, I examined the grades achieved at the SOD examination/assessment, determining that the score achieved reflects the student's ability to tap into their resource pool of experiential learning experiences. During the examination, students demonstrate clinical decision-making prowess using their neophyte expertise, for social embedding [20]. However, it indicates what the student can reproduce from their encounters at the time of the assessment and in a stressful examination situation [36]-[38]. Kolb's (1984) conclusion that learning is a continuous and reformable process through experience would be justifiably applied in examination conditions. The first-time sitting of the RENR constitutes the ini-

tial attempt at passing the licensure examination. Nursing students who fail at the initial sitting are also afforded four (4) additional attempts over 5 years [5]. Here, remedial instructions are provided to increase the likelihood of success on subsequent attempts. According to Wilkinson (2018), I used Kolb's theory to examine the integration of learning activities and its role in improved NCLEX-RN performance. This is implicitly applied by RENR pundits as they seek better outcomes among test-takers. Based on the theoretical constructs of Kolb's theory, the findings of this study support the execution of the SOD clinical examination as a means of evaluating candidate readiness for the RENR.

Practice recommendations: I examined a small cohort from one school of nursing in Jamaica. Data analysis provided empirical evidence of a positive relationship between SOD clinical intensive grades and RENR outcome. Although the sample was small and there were missing pieces of data, which would have contributed to the robustness of the findings, my study registers as the first step in examining the relationship between these two variables on a wider scale. The finding explicitly suggests that further research is needed to examine other identified covariates in the study and increase the study's generalizability. I also highlighted the paucity of nursing education and practice-based research from Caribbean nursing researchers. An evidence-based practice profession, such as nursing, requires educators who are adept in research and fact-finding to improve the delivery of high-quality nursing education, which facilitates the preparation of graduates who are expert practitioners.

6. Conclusion

A paradigm shift to research-based transformation is needed, especially from the Jamaican nursing education perspective. The examination of a single institution's data as against the wider baccalaureate population has greatly reduced the generalizability and the external validity of the study's findings. However, as was recommended by Reid (2010), the need to examine the impact of the implementation of RENR on nursing education remains. The findings of this study have heightened my interest in the importance of having bodies of evidence from which further studies can be generated and from which policies can be formulated regarding the education of nursing students/graduates equipped to address the demands of the 21st century and beyond. In my study, I also emphasized the significance of theoretical underpinnings in guiding research studies and their role in how findings are interpreted. The use of retrospective analysis was the best fit for this cross-sectional study, because it exposed some of the shortcomings of the past and provided insight into future possibilities. Some of the challenges encountered in data collection were also highlighted. These difficulties encountered in obtaining data could have been mitigated if there were a central pool of accessible data available for researchers, educators, and other stakeholders. The information could be useful in the planning and implementation of strategies targeted to enhance student readiness for the RENR and also support borderline students with additional help

in making a successful transition. This study represents a crucial step in creating a sound body of evidence to foster a more successful transition to licensure and practice.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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