PREDICTORS OF BS RESPIRATORY THERAPY LICENSURE EXAMINATION PERFORMANCE FOR FIRST-TIME TAKERS IN 2019, 2021, AND 2022

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ABSTRACT

The study used a descriptive correlation design to describe academic performance, pre-board examination, and board examination first-takers of 2019, 2021, and 2022. Fifty-two (52) graduates who took the RT licensure for the first time were included in the study. The mean standard deviation, Pearson r correlation coefficient, and multiple linear regression were used to analyze all data in Excel and SPSS. The results reveal that the respondents' academic performance in professional subjects, pre-board examination, and their licensure examination by area is satisfactory in rating. The relationship between academic performance (GWA) and respiratory therapy licensure examination (RTLE) performance for 2019 and 2022 is moderately positive and strong or high-positive correlation, respectively. While 2021 has a weak or low positive correlation, this indicates that GWA plays a significant role if it is correlated with RTLE performance. For the relationship between pre-board examination (PB) and RTLE performance, years 2019 and 2021 received a moderate positive correlation, but year 2021 is non-statistically significant. The 2021 pre-board examination is taken through a virtual examination, which has limitations since it is the first time utilizing it. The year 2022 has a strong or high relationship between PB and RTLE. The students' academic performance (GWA) is significant in determining the success of students' licensure examination performance for 2019 and 2021. While pre-board examination scores are a better predictor of licensure examination performance for 2022 board takers than academic performance. The study recommends enhancing the course curriculum to ensure the quality of instruction. To continue administering the pre-board examination, strengthen it by varying the examination content, The College may also reevaluate teaching strategies and content vis-à-vis the table of specifications provided by PRC and the manner of test questions in the actual RT LE in the said areas. A follow-up study can be done for further study.

Keywords: board examination performance, pre-board examination, academic performance (GWA)

INTRODUCTION

The UPH-DJGTMU College of Respiratory Therapy was established in 1989 as the pioneer in respiratory therapy education. After decades of lobbying for the RT law, the Respiratory Therapy profession recently had its first licensure examinations in 2013. The Professional Regulation Commission (PRC) has welcomed the influx of board takers from the earliest batch 2013 of graduates to the latest, positively encouraging the Professional Regulation Commission (PRC). However, the results of the first licensure examination show that national passing is forty-one point twenty-seven percent (41.27%) and our institutional passing is thirty-one point twenty-five percent (31.25%). But for 2019, 2021, and 2022 first-timers' average results are fifty-six point ninety-five percent, 56.95% higher than the national average of forty-five point three percent, 45.03% . Upon completion of a BSRT program, the newly graduated student must successfully pass the respiratory therapy licensure examination

(RTLE) to become a licensed respiratory therapist in the Philippines. The UPH-DJGTMU College of Respiratory Therapy looks for ways to identify students who may or may not be successful on the RTLE prior to graduation. The trend of board passers has fluctuated. There is no consistency in the increase. The College of Respiratory Therapy is aiming for a high passing rate. It will serve as the foundation for a high-quality, cost-effective program with market value for people entering respiratory programs. This study aims to determine among the variables of academic performance level and pre-board examination which would be the best predictors for RTLE first-timers of batches 2019, 2021, and 2022.

OBJECTIVES

The study determined the correlation of board examination performance, pre-board examination and academic performance of BS Respiratory Therapy Batch 2019,2021 and 2022 Graduates. Specifically, the researchers aimed to answer the following questions:

1. What is the academic performance of the Graduates (GWA) in Professional Courses comprising the Licensure Examinations?
2. What is the Pre-Board Examination Performance of the Graduates in Professional Courses comprising the Licensure Examination?
3. What are theperformance ratings of the Graduates in the Licensure Examinations?
4. Is there a significant Relationship between GWA and LE Performance of the RT Graduates batch 2019,2021 and 2022?
5. Is there a significant Relationship between PBE and LE Performance of the RT Graduates batch 2019,2021 and 2022?
6. Among the academic performance and pre-board examination variables, which are the best predictors of the Respiratory Therapy Licensure Examination Performance of Graduates 2019, 2021 and 2022?

MATERIALS AND METHODS

The study utilized the academic, pre-board examination and board examinations data from graduates of batch 2019, 2021, 2022.
Fifty two (52) first taker of years 2019, 2021 and 2022 who took the RT licensure were included in the study. Primary source of academic performance, pre-board examination and board performance are the school automate system, examination and the PRC certificate list of passed/failed examinees respectively.
Academic performance and pre-board examination of graduates in their professional subjects during third and fourth year were gathered. The professional subjects were then clustered or grouped based on the Respiratory Therapy Examination coverage namely:

AREA I. DIAGNOSTICS (25%)
A. Pulmonary Function Test (40%)
B. Arterial Blood Gas (ABG) (40%)
C. Electrocardiography (ECG) (20%)
AREA II. PATHOPHYSIOLOGY (25%)
A. Patient Assessment (50%)
B. Cardiopulmonary Pathophysiology (50%)
AREA III. RESPIRATORY CARE (25%)
A. Mechanical Ventilation and Oxygen Therapy(FRT) (50%)
B. Airway Care and Management (25%)

C.   Pulmonary Rehabilitation (25%)
AREA IV. NEONATAL (AND PEDIATRIC RESPIRATORY CARE 25%

After grouping the professional subjects and pre-board examination, the average grade for the area is computed and then compared with its corresponding RT board exam area (Area 1, Area 2, Area 3 and Area 4). Area 1 academic grades were correlated with Area 1 of the RT licensure exam. This was done also done in Area 2 to 4 with their corresponding Areas 2 to 4. All data were analyzed using mean standard deviation,Pearson r correlation coefficient and linear regression using Microsoft excel and SPSS program.

This study aims to determine the correlation between academic performance level, pre-board examination, and licensure examination, which would be the best predictors for RTLE first-timers of batches 2019, 2021, and 2022. Many studies were conducted in order to determine the best predictors of passing the licensure examination. However, the majority of the studies are in the field of nursing. According to Riggs,J.K (2022) Fewer studies have investigated the respiratory therapy examination process, and research is needed to increase the breadth of knowledge on this subject for the RRT educators, students and stakeholders. Graduates of either a bachelor's degree or an associate's degree in respiratory therapy are eligible to sit for the national boards, and my study focused on those graduating with an associate's degree. Respiratory care educators must utilize all means and opportunities to identify students and program strengths and weakness and utilize these discoveries to intervene academically, as appropriate to help students be successful throughout the program and in sitting for the TMC exam.

A study fromRiggs,J.K.(2022) of determining the extent to which selected academic and non-academic variables can predict success or failure on the national boards for graduates who have matriculated through a required respiratory therapy curriculum. Results stated that positive relationship between 4 academic variables involving students' grades within 4 courses and therapist multiple choice (TMC) first-time pass success. For every one-point change in the Pre-program Biology grade, the log odds of pass vs failure on the TMC increased by 8.42. For every one-point change in Pharmacology, the log odds of pass vs failure on the TMC increases by 3.55. For every one-point change in Cardiovascular Physiology grade, the log odds of pass vs failure on the TMC increased by 7.20. For every one-point change in the Neonatal and Pediatrics grade, the log odds vs failure on the TMC increased by 6.65. The odds of accurately predicting TMC outcome was 91.9% of the time using the four significant variables.

In a study of Croft (2015) conclude that a regimen of daily quizzes may be a successful strategy to improve high stakes test scores. It does not seem to matter if the review process is instructed led or computer led based. This findings may be attributed to an increasing student self efficacy, self-confidence and/or testing desensitization. This can support the importance of taking a pre-board examination before taking the RTLE. According to Kinkie, R.M. (2020) Binary logistic regression (BLR) models demonstrated significant predictive relationships between specific behavioral factors, personal factors, and environmental factors and degree completion. Significant predictors of degree completion included the following: grade in first program course, first program term and end of first term cumulative grade point averages (GPAs), and failing a required program course (behavioral factors); student age, ethnicity, and gender (personal factors); and campus of attendance and advising model (environmental factors). This suggest specific behavioral factors, specific personal factors, and specific environmental factors each appear to influence student success. This study can help us to

evaluate the best predictive value in RTLE and can be a basis in providing opportunity to improve the delivery of education to students.

RESULTS AND DISCUSSIONS

Table 1. Performance of the Graduates (First Takers) in Licensure Examinations (2019, 2021, 2022)

Year Taken	First takers Passing Percentage	National Passing Percentage
	76%	60%
2019	77.78	68.3
2021	70	62.96
2022	80	48.67
MEAN VALUE	76	60

Table 1 shows the first takers licensure examination performance of 2019, 2021 and 2022 compared with the national passing average. The average passing rate of 2019, 2021 and 2022 first takers was 76% which is higher that the national average mean value of 60%. There is a consistent trend from 2019, 2021 and 2022 of first takers performance is higher than the national passing average.This means that the first takers of 2019, 2021, and 2022 have been adequately educated and trained during their academic years of study at the university.

Table 2. Academic Performance of the Graduates (GWA) in Professional Courses comprising the Licensure Examinations Batch 2019, 2021, 2022

PROFESSIONAL SUBJECTS BY AREA	2019	2021	2022	**AVERAGE**
	Mean ± SD SEPTEMBER	Mean ± SD MARCH	Mean ± SD FEBRUARY	
AREA 1 (Diagnostics)	81 ±4.42 (Satisfactory)*	81 ± 5.21 (Satisfactory) *	81 ± 2.99 (Satisfactory)*	81(Satisfactory)*
AREA 2 (Pathophysiology)	79 ±4.03 (Satisfactory)*	80 ± 3.57 (Satisfactory)*	78 ± 4.32 (Satisfactory)*	79(Satisfactory)*
AREA 3 (Respiratory Care)	80 ±4.12 (Satisfactory)*	82 ± 5.06 (Satisfactory)*	79±4.81 (Satisfactory)*	80(Satisfactory)*
AREA 4 (Neonatal/Pediatric Respiratory Care)	79 ±3.96 (Satisfactory)*	78 ± 3.66 (Satisfactory)*	77 ± 2.77 (Satisfactory)*	78(Satisfactory)*
OVERALL	80±3.90 (Satisfactory)*	80±3.99 (Satisfactory)*	79 ± 3.34 (Satisfactory)*	80(Satisfactory)*

* 95 - 100 – Excellent,   90 - 94.99 -Very Good,   82– 89.99   Good,   75-81.99 Satisfactory,70 - 74.99   Barely Satisfactory, Below 70 - Not Satisfactory

Table 2 shows the academic performance of first-takers BS RT last 2019, 2021 and 2022 graduates. All professional subject by area are satisfactory with an average of 80%. The lowest mean standard deviation of 77± 2.77 first taker of 2022 Area 4 (Neonatal/Pediatric Respiratory Care) and the highest is 82 ± 5.06 area 3 (respiratory care) batch 2021. Based on the overall standard deviation of year 2019, 2021, 2022 all are have near value indicates close to the mean of the data set.

Table 3. Pre-Board Examination Performance of the Graduates in Professional Courses comprising the Licensure Examination

PRE-BOARD EXAMINATION PERFORMANCE	2019	2021	2022	AVERAGE
	Mean ± SD SEPTEMBER	Mean ± SD MARCH	Mean ± SD FEBRUARY	
AREA 1 (Diagnostics)	77 ± 3.89 (Satisfactory)*	79 ±5.24 (Satisfactory)*	77 ± 3.31 (Satisfactory)*	78(Satisfactory)*
AREA 2 (Pathophysiology)	76 ± 6.63 (Satisfactory)*	78 ± 6.84 (Satisfactory)*	75 ± 6.23 (Satisfactory)*	76(Satisfactory)*
AREA 3 (Respiratory Care)	80 ± 3.78 (Satisfactory)*	81±6.02 (Satisfactory)*	79 ± 2.88 (Satisfactory)*	80 (Satisfactory)*
AREA 4 (Neonatal/Pediatric Respiratory Care)	79 ± 6.87 (Satisfactory)*	80 ± 7.53 (Satisfactory)*	78 ± 5.50 (Satisfactory)*	79 (Satisfactory)*
OVERALL	78± 4.33 (Satisfactory)*	79 ±5.71 (Satisfactory)*	77 ± 3.18 (Satisfactory)*	78 (Satisfactory)*

95 - 100 – Excellent, 90 - 94.99 -Very Good, 82 – 89.99 Good, 75-81.99 Satisfactory, 70 - 74.99 Barely Satisfactory, Below 70 - Not Satisfactory

Table 3 shows the pre-board examination performance of the graduates in professional courses comprising the licensure examination who take last 2019, 2021 and 2022. Each professional subject has received a satisfactory rating, ranging from 75 to 81. The highest mean standard deviation is area 3 "Respiratory Care" with 81± 6.02 batch 2021 while the lowest is area 2 "Pathophysiology" of 75 ± 6.23 batch 2022. This indicate that students is struggling with area 2 "pathophysiology" and have a good pre-board examination performance in area 3 "Respiratory care".

Table 4. Performance Ratings of the Graduates in the Licensure Examinations last 2019, 2021 and 2022

LICENSURE EXAM PERFORMANCE BY AREA	2019	2021	2022	AVERAGE
	Mean ± SD SEPTEMBER	Mean ± SD MARCH	Mean ± SD FEBRUARY	
AREA 1 (Diagnostics)	79 ± 8.18 (Satisfactory)*	79 ±6.77 (Satisfactory)*	79 ± 5.52 (Satisfactory)*	79 (Satisfactory)*
AREA 2 (Pathophysiology)	78 ± 6.63 (Satisfactory)*	77 ± 6.84 (Satisfactory)*	78 ±4.75 (Satisfactory)*	78 (Satisfactory)*
AREA 3 (Respiratory Care)	76 ± 7.80 (Satisfactory)*	78 ± 7.00 (Satisfactory)*	78 ± 2.88 (Satisfactory)*	78 (Satisfactory)*
AREA 4 (Neonatal/Pediatric Respiratory Care)	73 ± 8.95 (BarelySatisfactory)*	75 ± 7.29 (Satisfactory)*	73 ± 5.40 (BarelySatisfactory)*	73 (Barely Satisfactory)*
OVERAL	77 ± 8.09 (Satisfactory)*	77 ± 7.59 (Satisfactory)*	77 ±4.18 (Satisfactory)*	77 (Satisfactory)*

95 - 100 – Excellent, 90 - 94.99 -Very Good, 82 – 89.99 Good, 75-81.99 Satisfactory, 70 - 74.99 Barely Satisfactory, Below 70 - Not Satisfactory

As shown in table 4, the board performance of Batch 2019, 2021 and 2022 in the following area: Diagnostics, Pathophysiology, and Respiratory Care are in range of 78-79%. However, Neonatal/Pediatric Respiratory Care is below passing grade of 73% for batch 2019 and 2022. By averaging the four areas the overall board performance is 77% The highest mean standard deviation is area 1 "diagnostic" with 79 ± 8.18. This indicative that area 4 (Neonatal/Pediatric Respiratory Care) is a difficult area for Batch 2019 and 2022 while area 1 (diagnostic) is less hard for all the batches.

Table 5. Relationship between GWA and LE Performance of the Graduates

	2019			2021			2022		
	Pearson r	*p*-value	Interpretation	Pearson r	p-value	Interpretation	Pearson r	p-value	Interpretation
Area 1	0.549 moderate positive correlation	0.001*	Significant	0.492 weak or low positive correlation	0.158*	Nonsignificant	0.450 weak or low positive correlation	0.19*	Nonsignificant
Area 2	0.522 moderate positive correlation	0.002*	Significant	0.604 moderate positive correlation	0.063*	Significant	0.722 strong or high positive correlation	0.018*	Significant
Area 3	0.638 moderate positive correlation	0.00008*	Significant	0.472 weak or low positive correlation	0.168*	Nonsignificant	0.603 moderate positive correlation	0.064*	Nonsignificant
Area 4	0.530 moderate positive correlation	0.001*	Significant	0.376 weak or low positive correlation	0.283*	Nonsignificant	0.523 moderate positive correlation	0.12*	Nonsignificant
OVERALL	0.621 moderate positive correlation	0.0001*	Significant	0.477 weak or low positive correlation	0.162*	Nonsignificant	0.730 strong or high positive correlation	0.016*	Significant

*p<0.001 significant

Table 5 shows that after performing the Pearson r test, the r value, 0.62, suggest a moderate positive correlation between the two variables. There is a moderate relationship between the academic performance (GWA) of the graduates and their Licensure Examination ratings for the year 2019. Moreover the *p*-value is .0001 it is statistically significant. This indicates that academic performance plays a significant role if it is correlated with the licensure examination performance. It also shows for year 2021 the Pearson r test, the r value, 0.477, suggest weak or low positive correlation between the two variables. There is a low relationship between the academic performance (GWA) of the graduates and their Licensure Examination ratings for the year 2021.The *p*-value is .162 indicates that there is no significant relationship. It seems that area 1, area 3 and area 4 cannot predict nor explain the variability of licensure examination performance. It is not significantly related to the success of students to pass RT licensure examination. Batch 2021 first takers half of their internship is from online

While for year 2022 after performing the Pearson r test, the overall r value, 0.730, suggest a strong or high positive correlation between the two variables. There is a strong relationship between the academic performance (GWA) of the graduates and their Licensure Examination ratings for the year 2022. Moreover the *p*-value is .016 it is statistically significant. This indicates that academic performance plays a significant role if it is correlated with the licensure examination performance. The area 1, area 3 and area 4 cannot predict nor explain the variability of licensure examination performance. It is not significantly related to the success of students to pass RT licensure examination

Table 6. Relationship between Pre-board examination and Licensure Exam Performance of the Graduates

	2019			2021			2022		
	Pearson r	*p*-value	Interpretation	Pearson r	p-value	Interpretation	Pearson r	p-value	Interpretation
Area 1	0.175 very weak or very low positive correlation	0.336*	Non Significant	0.084 very weak or very low positive correlation	0.816*	Nonsignificant	0.038 weak or low positive correlation	0.916	Nonsignificant
Area 2	0.635 moderate positive correlation	0.00009*	Significant	0.734 moderate positive correlation	0.015*	Nonsignificant	0.732 strong or high positive correlation	0.015	Significant
Area 3	0.344 weak or low positive correlation	0.053*	Significant	0.217 weak or low positive correlation	0.546*	Nonsignificant	0.592 moderate positive correlation	0.071	Nonsignificant
Area 4	0.496 weak or low positive correlation	0.003*	Significant	0.216 weak or low positive correlation	0.547*	Nonsignificant	0.398 weak or low positive correlation	0.253	Nonsignificant
OVERALL	0.603 moderate positive correlation	0.0002*	Significant	0.380 moderate positive correlation	0.278*	Nonsignificant	0.797 strong or high positive correlation	0.005	Significant

*p<0.001 significant

Table 6 shows the Correlate analysis revealed the correlation coefficient and *p*-value of Pre-board examination and Licensure Exam Performance. Verbal reasoning obtained a correlation coefficient of 0.603 and *p*-value of .0002 , which is with moderate positive correlation and statistically significant. This indicates that Pre-board examination plays a significant role if it is correlated with the licensure examination performance. But area 1 (diagnostic) has 0.175 very weak or very low positive correlation with p-value of .336 indicates no significant relationship between area 1 Pre-board examination and Licensure Exam Performance of the Graduates of 2019.

For year 2021 correlates analysis revealed the correlation coefficient and *p*-value of Pre-board examination and Licensure Exam Performance. Verbal reasoning obtained a correlation coefficient of 0.380 and *p*-value of .278, which is with moderate positive correlation and non statistically significant. This reveals that Pre-board examination used is not significantly related with the licensure examination performance by batch 2021. Pre-board examination is taken thru virtual examination which has limitation since it is the first time utilizing it. It also shows year 2022 results after performing the Pearson r test, the overall r value, 0.797, suggest a strong or high positive correlation between the two variables. There is a strong relationship between the pre-board examination of the graduates and their Licensure Examination ratings for the year 2022. Moreover the *p*-value is .005 it is statistically significant. This indicates that pre-board examination plays a significant role if it is correlated with the licensure examination performance. The area 1, area 3 and area 4 cannot predict nor explain the variability of licensure examination performance. It is not significantly related to the success of students to pass RT licensure examination with the area respectively.

Table 7. Multiple Linear Regession Model for Predictor of Licensure Examination Performance of Graduates

Predictors	2019						2021						2022					
	Beta coefficient	R-squared	F	t-value	p-value	Interpretation	Beta coefficient	R-squared	F	t-value	p-value	Interpretation	Beta coefficient	R-squared	F	t-value	p-value	Interpretation
LE (constant)	-28.382						-12.36						-14.08					
GWA	0.764	0.376	18.88	1.557	0.0001	Significant	1.775	0.228	2.365	0.89	0.16	Not Significant	0.49	0.533	7.558	1.466	0.016	Significant
PBE	0.55	0.343	17.19	1.222	0.0002	Significant	-0.665	0.144	1.354	-0.48	0.28	Not Significant	0.685	0.636		1.879	0.005	Significant

Table 7 revealed that both the academic and the pre-board examination performance are predictors of the licensure examination performance of the Respiratory Therapy graduates in 2019 examination since their p-values of 0.001 are less than 0.05. The academic performance of the 2019 board takers in the model can predict 37.6% (adjusted R-squared) change in the licensure examination scores (or 37.6% change in the licensure examination scores is accounted by the academic performance) while the pre-board examination performance can predict 34.3% (adjusted R-squared) change in the licensure examination scores of the graduates. In both cases, the regression coefficient (Beta) is positive, indicating that when both the academic and pre-board examination performance increase by 1 point, their licensure examination performance also increases by 0.764 and 0.550 respectively. For 2019 board takers, their academic performance is better predictor of their licensure examination performance.

For 2021 shows both the academic and the pre-board examination performance are not predictors of the licensure examination performance of the Respiratory Therapy graduates in 2021 examination since their p-values of 0.162 and 0.278 are more than 0.05 respectively. The academic performance of the 2021 board takers in the model can predict 22.8% (adjusted R-squared) change in the licensure examination scores (or 22.8% change in the licensure examination scores is accounted by the academic performance) while the pre-board examination performance can predict 14.4% (adjusted R-squared) change in the licensure examination scores of the graduates. The academic performance regression coefficient (Beta) is positive, indicating that when the academic performance increase by 1 point, their licensure examination performance also increases by 1.775 while the pre-board examination has negative regression coefficient (Beta) indicate that pre-board examination increase by 1 point, their licensure examination performance also decreases by -0.665. For 2021 board takers, their academic performance are better predictor of their licensure examination performance.

For 2022 shows that both the academic and the pre-board examination performance are predictors of the licensure examination performance of the Respiratory Therapy graduates in 2022 examination since their p-values of 0.016 and 0.005 are less than 0.05. The academic performance of the 2022 board takers in the model can predict 53.3% (adjusted R-squared) change in the licensure examination scores (or 53.3% change in the licensure examination scores is accounted by the academic performance) while the pre-board examination performance can predict 63.6% (adjusted R-squared) change in the licensure examination scores of the graduates. In both cases, the regression coefficient (Beta) is positive, indicating that when both the academic and pre-board examination performance increase by 1 point, their licensure examination performance also increases by 0.490 and 0.636 respectively. For 2022 board takers, their pre-board examination scores are better predictor of their licensure examination performance.

CONCLUSION

1.The passing grade percentage for the years 2019, 2021, and 2022 Respiratory Therapy Licensure examination for UPH-Dr. Jose G. Tamayo Medical University is 76%, which is higher than the national average mean value of 60%. This means that the first takers of 2019, 2021, and 2022 are adequately educated and trained during their academic years of study at the university.

2.The fifty-two graduates in this study in terms of their academic performance (GWA) for all professional subjects by area are satisfactory, with an average of 80%. The lowest mean standard deviation was in area 4 (neonatal/pediatric respiratory care) And batch 2021 has the highest in area 3 (respiratory care). This indicate that students is struggling with area 4 " neonatal/pediatric respiratory care " and have a good academic performance in area 3 "Respiratory care".

3.While in terms of pre-board examination performance each professional subject received satisfactory rating. The highest mean standard deviation is area 3 "Respiratory Care" in batch 2021, while the lowest is area 2 "Pathophysiology" of batch 2022. This indicate that students is struggling with area 2 "pathophysiology" and have a good pre-board examination performance in area 3 "Respiratory care".

4. The board performance of Batch 2019, 2021, and 2022 of the areas 1 "Diagnostics",2 "Pathophysiology" and 3"Respiratory Care" are in the range of 78–79%. However, Neonatal/Pediatric respiratory care is below the passing grade for batches 2019 and 2022. The highest mean standard deviation is in area 1 "diagnostic". This indicates that area 3 (Neonatal/Pediatric Respiratory Care) is a difficult area for batches 2019 and 2022, while area 1 (diagnostic) is less difficult for all the batches.

5. This academic performance plays a significant role if it is correlated with licensure examination performance for batch 2019. But in batch 2021, there is a low relationship that cannot predict or explain the variability of licensure examination performance. It is not significantly related to the success of students in passing the RT licensure examination. This may be because the majority of them are irregular returning students from the old curriculum that chose to finish the program despite the gap of years. while batch 2022 suggests a strong or high positive correlation between the two variables. This indicates that academic performance plays a significant role if it is correlated with licensure examination performance.

6. The Relationship between Pre-board examination and Licensure Examination Performance of the Graduate 2019 is a moderate positive correlation and statistically significant. But area 1 (diagnostic) has a very weak or very low positive correlation. The results of RTLE is much higher than the Pre-board examination in area 1, this indicates that the RTLE is less difficult than the given pre-board examination for 2019.

While for batch 2021 has a moderate positive correlation and nonstatistically significant. This maybe because the pre-board examination is taken through a virtual examination, which has limitations since it is the first time utilizing it. In batch 2022, suggests a strong or high positive correlation between the two variables. This indicates that the pre-board examination plays a significant role if it is correlated with the licensure examination performance. But area 1, area 3, and area 4 cannot predict or explain the variability of licensure examination

performance. This may be because all their pre-board examinations are taken online, which still has limitations like open books during the examination.

Predictors of RT Licensure Examination Performance of Graduates 2019
Both the academic and the pre-board examination performance are predictors of the licensure examination performance of the Respiratory Therapy graduates in the 2019 examination. Students who perform better in both variables are tend to perform better in the board examination. For 2019 board takers, their academic performance is a better predictor of their licensure examination performance. This shows that the kind of education and training the university provides

Predictors of RT Licensure Examination Performance of Graduates 2021
Both the academic and the pre-board examination performance are not predictors of the licensure examination performance of the Respiratory Therapy graduates in the 2021 examination. The accuracy of the pre-board examination, which is done online, is doubtful, which is susceptible to cheating and opens books during the exam.But for 2021 board takers, their academic performance is a better predictor of their licensure examination performance.

Predictors of RT Licensure Examination Performance of Graduates 2022
Both the academic and the pre-board examination performance are predictors of the licensure examination performance of the Respiratory Therapy graduates on the 2022 examination,but the Pre-board examination scores are a better predictor of licensure examination performance for 2022 board takers than academic performance.

RECOMMENDATIONS

1.   A course curriculum review can be done on a regular basis to improve the course curriculum and ensure the quality of instruction is on the rise since the academic performance of the respondents was the best predictor of RT Licensure Examination performance.
2.   Continue administering pre-board examinations as this has shown an important contribution to students' success in the licensure examination.
3.   Pre-board examinations should be strengthened. Examination content may vary from year to year, so the students should be prepared to answer whatever types of questions there are.
4.   The faculty handling major subjects such as (area 4) Neonatal/Pediatric Respiratory Care and (area 2) Pathophysiology should have the expertise to explain the concepts and principles thoroughly.
5.   The College may reevaluate their teaching strategies and content vis-à-vis the table of specification provided by PRC and the manner of test questions in the actual RT LE in the said areas.
6.   Strengthening the preparation subjects among faculty members and hiring more competent qualified RT's faculty who are in practice in Neo/Pedia Respiratory care and Pathophysiology that can help students in becoming well prepared for the two areas.

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