

DETERMINANTS OF PERFORMANCE OF NURSING GRADUATES IN LICENSURE EXAMINATION

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ABSTRACT

The study aimed to determine the factors affecting the performance of Bicol University graduates in the Nurses' Licensure Examination (NLE). Specifically, it determined the (1) profile of the graduates such as: pre-admission profile (College Entrance Test or CET, General Weighted Average or GWA in high school) and performance in nursing school (academic performance and Related Learning Experience or RLE); (2) performance of graduates in the NLE; (3) relationship between the profile of the respondents and their performance in the NLE; and (4) predictors to passing the NLE. Using the stratified random sampling design, this descriptive-evaluative research gathered the secondary data of 247 graduates who took the NLE from 2003 to 2007. Fifty-eight percent (58%) of the graduates who passed the NLE had a very satisfactory to superior pre-admission profile and superior academic performance in the nursing program. There is a positive correlation between the NLE rating and the profile of the graduates. Among the profile variables, academic performance was found to be the best predictor in the NLE; thus, students with excellent pre-admission profile who perform well in nursing school are most likely to pass the NLE. It is, therefore, imperative for the college to adhere to the admission policies and to institute teaching-learning strategies in assisting the students to achieve an excellent academic performance to pass the NLE.

***Keywords:** assessment, performance, graduates, profile, Nurses' Licensure Examination*

INTRODUCTION

The quality of the nursing graduates of an educational institution is the best evaluative tool of the quality of education the school provides. This is shown in their academic achievement, performance in the nurses' board examination, and job performance. Aligned with this is the goal of the Bicol University College of Nursing (BUCN) to attain the highest quality of graduates with training on the different health courses, as well as in research and extension services responsive to the needs of society. The achievement of the goal of BUCN is shown by the number of graduates and the percentage of passers. The NLE passing rate of the BUCN is generally higher than the national passing rate. However, the ratings for December 2003-2005 (44.74% in 2003, 15.1% in 2004, and 47.06% in 2005), were below the national passing rates (52.83% in 2003, 43.32% in 2004, and 53.97% in 2005). This implies that the goal of producing quality graduates of BUCN has not been achieved. The present study aimed to determine the factors affecting the NLE performance of BUCN graduates. Specifically, it determined the: (1) profile of the graduates namely: pre-admission profile (College Entrance Test or CET, General Weighted Average or GWA in high school) and performance in nursing school (academic performance and Related Learning

Experience or RLE); (2) performance of graduates in the NLE; (3) relationship between the profile of the respondents and their performance in the NLE; and (4) predictors to passing the NLE.

MATERIALS AND METHODS

This is a descriptive-evaluative research conducted in the BU College of Nursing Main Campus. The respondents were the 2003-2007 graduates who took the Nurses’ Licensure Examination. A total of 247 respondents were selected through a stratified random sampling from a population of 745 (see Table 1).

Table 1. Population and Sample of the Study

Year of NLE	Passers		Non-Passers	
	Female	Male	Female	Male
2003	65	18	11	3
2004	54	16	20	6
2005	96	28	20	6
2006	118	36	20	6
2007	149	45	16	5
Total	482	143	87	26

The study used secondary data obtained from the college registrar of the BUCN and the Professional Regulation Commission (2009). The permission to conduct the study was obtained from the dean of the College of Nursing and the respondents. The data were statistically analyzed using percentage and frequency for the profile of the graduates, Pearson product moment correlation coefficient for the strength of relationship between the profile of the graduates and their rating in the NLE, and stepwise regression analysis for the predictors in passing the NLE.

RESULTS AND DISCUSSION

Profile of Respondents

Prior to a student’s entry to college, one is evaluated for readiness to the rigors of nursing school. The evaluation is done through the CET which is comprised of 80% CET and the 20% GWA in high school. The CET is useful in planning an appropriate course of study to increase students’ success in the academic program (Bicol University, 2006). A student’s performance in the nursing school is measured by the academic and RLE ratings. The majority of the NLE passers were superior in the CET and had outstanding grades in high school. Meanwhile, the majority of the non-passers only had a fair rating in the CET and satisfactory grades in high school (see Table 2). McClelland, Yang, and Glick (1992) said that students’ pre-nursing grade point average and American College Testing scores predict their performance on the NCLEX-RN.

Table 2. Pre-Admission profile of the respondents

Respondents	CET Rating (%)					GWA in High School (%)		
	Superior (89-94)	VS (84-88)	S (78-83)	Fair (75-77)	O (95-97)	Superior (89-94)	VS (84-88)	S (78-83)
Passers (n=143)	75.6	55.6	54.9	33.0	100	67.0	53.5	31.3
Non-Passers (n=104)	24.4	44.4	45.1	67.0		33.0	46.5	68.7
Total	100	100	100	100	100	100	100	100

Performance in the Nursing Program. The nursing curriculum consists of the academic and the RLE components. The academic component is comprised of general education and professional courses while the RLE is the practicum component that is designed to enable the student to acquire and develop the professional knowledge, skills, and attitudes in nursing through the contact with clients in various health situations, both in the hospital and the community. According to de Tornyay and Thompson (as cited in Banua, 2005), it is in the RLE component where the validation of previously learned principles and concepts occurs, and the use of skills learned in simulated environment takes place.

The performance of the NLE passers in the nursing program was superior in the academic (83%) and very satisfactory in the RLE (77%) components. The literature across several education disciplines suggests that academic performance variables are most closely related to licensure examination scores (Theiman, Weddle, and Moore, 2003; Dockter, 2001; Blackington 2001). Further, Dockter and Blackington (2001) claimed that the grade point average is more closely related to the licensure examination than pre-admission variables. According to Friedemann and Valentine (1998) nursing lecture courses were better predictors of success than clinical courses. Their study showed that students who received A-grades in lecture courses scored relatively higher and B-students scored lower on the new State Board Examination compared to the old State Board examinations in the United States.

Table 3. Performance of the respondents in nursing school

Respondents	Academic Performance (%)		RLE Performance (%)	
	Superior (89-94)	VS (84-88)	Superior (89-94)	VS (84-88)
Passers (n=143)	83.5	38.0	77.8	48.2
Non-Passers (n=104)	16.5	62.0	22.2	51.8
Total	100	100	100	100

Further findings show that 62% of the respondents whose performance in their academic courses was very satisfactory did not pass the NLE (see Table 3). This means that despite the attainment of the competencies, they were unable to pass the NLE. The grades given to students are expected to reflect the degree of competency in a particular area. A review of the evaluative tool may be done by the college to determine its validity and reliability. The inability to pass the NLE, despite the very satisfactory rating, may also be due to the failure to analyze questions and poor retention of the concepts learned.

Performance in the NLE. The performance in the NLE reveals that 58% of the graduates from 2003 to 2007 were passers, while 42% were non-passers (see Table 4). NLE tests the basic nursing level competency of the graduate. It considers the objectives of the nursing curriculum, the broad areas of nursing, and other related disciplines and competencies.

Table 4. Performance in the NLE

Respondents	f	%
Passers (n=143)	143	57.9
Non-Passers (n=104)	104	42.1
Total	247	100.00

Relationship between the profile and the performance in the NLE

All the profile of the examinees (BUCET rating, GWA in high school, and academic and RLE rating) showed a positive significant (0.05) relationship (see Table 5) to NLE performance. This illustrates that the profile of the examinees was contributory to passing the NLE. However, it was the academic ($r=0.582$) and the RLE ($r=0.355$) components that contributed largely to passing the NLE. This is similar to the findings of Hill-Besinque, Wong, Louie, and Rho (2000), which showed that the academic performance during pharmacy school is a major determinant to passing the board examination. Similarly, Younger and Grap (1992) found that the highest predictive value for passing the National Council Licensure Examination for Registered Nurses (NCLEX) was the student’s grades in the core nursing courses.

Table 5. Relationship between the profile of graduates and the performance in NLE

Profile of Examinees	Coefficient r
CET Result	0.239**
Performance in High School	0.265**
Academic Performance	0.582**
Performance in RLE	0.355**

** Significance at 0.01 level

Predictors to NLE

A standard multiple regression analysis (stepwise) was conducted to evaluate how well high school grade, BUCET result, GWA, and RLE grade predicted performance in the Nursing Licensure Examination. The results are presented in Table 6.

Table 6. Predictors of NLE

Model	b	t value	p value	r	R ²
Model 1					
Constant	111.007	32.877	0.000	0.582	0.339
GWA	-17.744	-11.205	0.000		
Model 2					
Constant	121.133	22.287	0.000	0.595	0.354
GWA	-16.023	-9.263	0.000		
RLE	-6.431	-2.364	0.000		

Although both models were significantly related to Nursing Licensure Examination, linear combination of GWA and RLE grade, Model 2 is a better predictor with $F(2, 244) = 66.747$, $p < .001$. R^2 indicates the proportion of the variance in the dependent variable that is predicted by the linear regression and the predictor or the independent variable. A high R^2 shows that the model is a good fit for the data (Enders, 2007). The multiple correlation coefficient of Model 2 was 0.595 indicating that approximately 35.4% of the variance of the Nursing Licensure Examination can be accounted for by the linear combination of GWA and RLE grade. The regression equation for predicting the Nursing Licensure Examination was:

$$\text{Predicted NLE Performance} = 121.133 - 16.023 * \text{GWA} - 6.431 * \text{RLE grade}$$

This implies that a student with good academic performance will similarly have good performance in the NLE.

CONCLUSIONS AND RECOMMENDATIONS

The study concludes that nursing graduates with superior pre-admission profile and performance in the nursing program are most likely to pass the NLE. Considering that academic performance is the best predictor in passing the NLE, the study recommends that the faculty should regularly assess the academic performance of the students so that early and appropriate interventions are instituted in areas needing improvement. To reinforce the knowledge gained in the classroom, learning situations in the clinical setting should be carefully selected to promote the integration of the learning skills to previous learning experiences and the development of analytical and problem solving skills. Similarly, there is a need to look into the reliability and validity of the evaluative tools used in the college. Further, studies on BUCN's adherence to the admission policy, as well as the student factors—like attitudes, study habits, and learning styles—that relate to academic performance should be conducted.

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