ECONSTOR
Make Your Publications Visible.

A Service of

ZBW Leibniz-Informationszentrum Wirtschaft
Leibniz Information Centre for Economics

Oducado, Ryan Michael F.; Cendaña, Dexter P.; Belo Delariarte, Rosana Grace

Article — Published Version

Institutional Competency Assessment and Other Factors Influencing the Nurse Licensure Examination

International Journal of Scientific & Technology Research

Suggested Citation: Oducado, Ryan Michael F.; Cendaña, Dexter P.; Belo Delariarte, Rosana Grace (2019) : Institutional Competency Assessment and Other Factors Influencing the Nurse Licensure Examination, International Journal of Scientific & Technology Research, ISSN 2277-8616, IJSTR, s.l., Vol. 8, Iss. 12, pp. 268-270, http://www.ijstr.org/final-print/dec2019/Institutional-Competency-Assessment-And-Other-Factors-Influencing-The-Nurse-Licensure-Examination.pdf

This Version is available at:
https://hdl.handle.net/10419/213487

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

https://creativecommons.org/licenses/by/4.0/

WWW.ECONSTOR.EU

Mitglied der Leibniz-Gemeinschaft

Institutional Competency Assessment And Other Factors Influencing The Nurse Licensure Examination

Ryan Michael F. Oducado, Dexter P. Cendaña, Rosana Grace Belo-Delariarte

Abstract : The passing rate in the Nurse Licensure Examination (NLE) is considered a key indicator of the quality of the nursing program. While a plethora of studies has identified the factors affecting NLE success, no study has tried to explore the role of an institutional standardized competency examination on NLE. The purpose of this study was to determine the relationship of institutional terminal competency assessment (TCA) and other factors on the NLE performance of nursing graduates. This study used a descriptive-correlational research design using data sets of nursing graduates of West Visayas State University from 2015 to 2017 (N=354). Pearson's r set at .05 alpha level was used in the inferential analysis. Results indicated that TCA was significantly related to NLE performance. Other factors such as High School Grade General Average, College Grade General Weighted Average and scores in College Admission Test, Nursing Aptitude Test, and Pre-board Examination were significantly correlated with NLE rating. Aside from the known factors in the literature, nursing schools may also benefit from developing and conducting an institutional standardized competency assessment administered at the end of the nursing program to aid in assessing students' likelihood of success in the NLE.

Index Terms: board examination, competency assessment, licensure examination, nursing

1 INTRODUCTION

The passing rate in the national licensure examination for nurses is considered a key indicator of the quality of the nursing program [1], [2]. Professional licensure or occupational licensing system grants permission to the person possessing the license to practice the profession and ensures that the licensee has some minimal level of competence to perform acts allowed by the license [3]. The Nurse Licensure Examination (NLE), therefore grants permission to practice professional nursing and ensure that the person holding the license has met the minimum, first, or entry-level competencies to safely perform nursing activities within the scope of professional nursing practice. In the Philippines, before one can legally practice as a licensed nurse, one has to pass the NLE given by the Professional Regulatory Board of Nursing (PR-BON) [4], [5]. Recent data from the Philippine Professional Regulatory Commission indicate that the overall national passing percentage in the NLE is around or below 50 percent. For instance, in June 2019, June 2018, and June 2017 NLE, the overall passing rates were only at 52.20%, 43.82%, and 34.73% respectively [6]. Earlier scholars also noted a downward trend for NLE takers and passers from 2010 to 2016 [7]. The statistics suggest that nursing schools all over the country produce a considerable number of graduates not qualified to practice nursing after graduation. The disturbing national passing rate in the NLE has caught the attention of many scholars to study the factors affecting the NLE. The West Visayas State University College of Nursing has been consistent in producing topnotchers and in gaining a passing percentage higher than the national passing rate of above ninety percent for more than four decades. Despite the commendable performance of the college, there has been no research conducted on the performance of its graduates in the NLE. Moreover, to the researchers' knowledge, no study has tried to explore the role of an institutional standardized competency examination on NLE. The Terminal Competency Assessment (TCA) is an institutional assessment given to all graduating students to determine their workplace readiness, likewise assesses their performance in the different behavioral competencies and specialized knowledge test [8]. This study aimed to determine the relationship between TCA and NLE performance. Likewise, it aimed to determine other factors earlier identified in the literature that correlates with NLE scores of nursing graduates of a top-performing nursing school for a three-year period.

- *Ryan Michael F. Oducado, Faculty, College of Nursing West Visayas State University, Email: rmoducado@wvsu.edu.ph*
- *Dexter P. Cendaña, Faculty, College of Nursing West Visayas State University*
- *Rosana Grace Belo-Delariarte, Dean, College of Nursing West Visayas State University*

2 LITERATURE REVIEW

Prior studies identified various factors affecting NLE success. Some of these factors are pre-entry qualifications such as High School Grade [9], College Entrance or Admission Test (CAT) [9], [10], [11], Nursing Aptitude Test (NAT) [10], [11] and scholastic aptitude such College Grade Point Average or academic performance in nursing school [9], [10], [11], [12], [13]. Other research has identified that Pre-board Examination performance is predictive of NLE performance [11]. National studies also investigated examinee, institutional, and program variables as correlates of NLE examinees' scores [5]. Location, size, type, year of establishment, and student-faculty ratio were also found to be associated with NLE passing rate [7]. It must be noted that none of these studies has investigated the correlation between institutional standardized competency assessment and NLE performance. A study disclosed that a comprehensive examination in the format of the licensure exam is a predictor of success in the state board licensure examination [2].

3 METHODS

A descriptive-correlational research design was used to determine the correlation of the factors identified in this study to the NLE performance. Graduates of the West Visayas State University (N= 354) from 2015 to 2017 were included in the study. The NAT scores were obtained from the Center for Educational Measurement, Inc., the center that administered the NAT. The High School grades and CAT scores were

retrieved from the Admissions and Promotions Committee after the Dean of the College granted permission. Grades in College were taken from the Transcript of Records of the students obtained from the University Registrar after permission was granted by the Vice President for Academic Affairs. The Pre-board Examination scores were taken from the University Review Center, and the NLE scores or ratings were requested from the Philippine Professional Regulation Commission. The TCA test of core nursing knowledge is an institutional standardized specialized knowledge paper and pencil test administered before graduation. The test was developed and formatted based on the Competency-Based Test Framework of the PR-BON to simulate the NLE [8]. The test has a reliability coefficient of .829 [8]. Descriptive statistics and Pearson's r set at .05 alpha level were used to analyze the data. All statistical computations were processed using the Statistical Package for the Social Sciences (SPSS) software version 23.

4 RESULTS

Table 1 shows the distribution of students who graduated from 2015-2017 based on existing data. According to the year of graduation, 39.8% graduated in the year 2015, 25.1% in 2016, and 35% in 2017. The majority were females (82.8%) and graduated from public high schools (61.0%). 56% had a High School Grade General Average of 90 and above. 68.6% scored 125 and above in the CAT, while 29.9% and 26.3% had above average and superior performance in the NAT respectively. Almost all (91.2%) had a College Grade General Weighted Average of 1.74 and below, 48.9% had a Pre-board Examination rating in the range of 79.99% and below, and 68.1% had a rating of between 50 to 74% in TCA. With the NLE performance, 72.3% had a rating of 80 to 84.99%.

Table 1

Profile of Participants

Characteristics (N=354)	Categories	f	%
Year	2015	141	39.8%
	2016	89	25.1%
	2017	124	35.0%
Sex	Male	61	17.2%
	Female	293	82.8 %
Type of High School	Private	138	39.0%
	Public	216	61.0%
High School Grade General Average	90.0 and above	198	56.0%
	89.9 and below	156	44.0%
CAT score	125 & above	243	68.6%
	124 & below	111	31.4%
NAT score	Excellent (675 – 800)	80	22.6%
	Superior (626 – 675)	93	26.3%
	Above Average (576 – 625)	106	29.9%
	High Average (526 – 575)	66	18.6%
	Average (525 and below)	9	2.5%
College GWA	Outstanding (1.74 and above)	31	8.8%
	Very good to pass (1.75 and below)	323	91.2%
Pre-Board Examination rating	High (85% and above)	43	12.1%
	Average (80-84.99%)	138	39.0%
	Low (79.99% and below)	173	48.9%
TCA rating	Advanced/Excellent (75-100%)	107	30.2%
	Proficient/Good (50-74%)	241	68.1%
	Basic/Fair (25-49%)	6	1.7%
NLE rating	High (85% and above)	9	2.5%
	Average (80-84.99%)	256	72.3%
	Low (79.99% and below)	89	25.1%

The statistical tool utilized in this study to determine the relationship between the independent variables of this study and NLE performance was Pearson's r. The results of the statistical analysis revealed that High School Grade General Average (r=.365, p=.000), CAT score (r=.297, p=.000), NAT score (r=.438, p=.000), College Grade GWA (r= -.644, p=.000), Pre-board Examination rating (r=.435, p= .000) and TCA rating (r=.102, p=.027) were significantly correlated with NLE rating at $p<0.05$.

Table 2

Correlation between variables

Independent Variables	r	p
High School Grade	.365	.000*
CAT	.297	.000*
NAT	.438	.000*
College GWA	-.644	.000*
Pre-Board Examination	.435	.000*
TCA	.102	.027*

*significant if $p < 0.05$

5 DISCUSSION

The study attempted to determine factors affecting the NLE performance. The finding of this study is consistent with the literature wherein pre-entry qualification, academic performance or achievement in nursing school, and pre-board examination are significantly correlated with NLE rating [9], [10], [11], [12], [13]. Previous academic success in High School is a useful indicator of future success in the NLE as indicated by the correlation between High School Grade and NLE rating. At the same time, NAT and CAT remain to be useful pre-admission criteria that can be used by nursing schools in screening and selecting applicants in the nursing program. Aptitude test, like NAT, serves as a good measure of potentials and estimate of future performance [8], [14]. Achievement test represents a terminal evaluation of an individual's status upon the completion of training, course or program [8], [14]. This study underscores the importance of academic performance or achievement as a factor in determining NLE performance. This study found that College Grade GWA is inversely correlated with NLE rating. It must be noted that the grading system in the college is expressed in 1.0 to 5.0 (1.0 is the highest). Hence, lower scores indicate better performance. This result of the study still shows a direct relationship suggesting that the higher is the academic performance of students in nursing school, the higher is their score or rating in the NLE. In this study, performance in the undergraduate nursing program indicated by the College Grade GWA has the highest correlation coefficient among the independent variables. This may be attributed to the fact that the NLE takes into account the objectives of the undergraduate Bachelor of Science in Nursing curriculum [5]. Earlier studies have shown that academic performance in college or College GPA is the best predictor of NLE performance [9], [10], [11]. Moreover, this finding emphasizes the value of academic guidance in nursing school [15]. It is also significant to note that a higher proportion of graduates in this study had a rating of 79.99% and below in the Pre-board Examination while the majority had a rating of 80 to 84.99% in the actual NLE. This finding suggests that Pre-board

Examination may to be more difficult than the actual NLE, a similar inference previously made by other researchers [11]. Remarkably, other than the known factors that predict NLE success, this study demonstrated that TCA rating is associated with NLE scores or performance. This result indicates that an institutional comprehensive standardized examination may be helpful for nursing schools in determining the success or failure of students in the NLE. This study has highlighted the intellectual or academic variables that influence the NLE performance. Despite its valuable findings, this study has its limitations. Since this involves a sample in a single college limits the generalizability of results of this study. Nevertheless, this study affirmed the previous factors found in the literature that are associated with the licensure examination performance. This study contributes to the body of the knowledge on the licensure examination of nurses suggesting the contribution of an institutional standardized competency assessment not previously identified by previous scholars.

6 CONCLUSION

The use of students' pre-admission qualification, academic performance in nursing school, and terminal test scores may assist nursing schools in identifying the performance of nursing graduates in the NLE that may be useful in the development of admission and retention policy in the nursing program. On top of the known factors affecting NLE performance, nursing schools may also benefit from developing and conducting an institutional standardized competency assessment administered at the end of the nursing program to aid them in assessing students' likelihood of success in the NLE. Further studies may be conducted on non-academic factors of NLE performance not identified in this study to obtain a more holistic approach in understanding students' performance in the NLE.

ACKNOWLEDGMENT

This work was supported in part by a grant from the West Visayas State University - University Research and Development Center. Moreover, the researchers would like to thank Dr. Geneveve M. Parreño for the statistical advice.

REFERENCES

[1] Daley, L.K., Kirkpatrick, B.L., Frazier, S.K., Chung, M.L., & Moser, D.K. (2003). Predictors of NCLEX-RN success in a baccalaureate nursing program as a foundation for remediation. *Journal of Nursing Education*, 42(9): 390-398.

[2] Havrilla, E., Zbegner, D., & Victor, J. (2018). Exploring predictors of NCLEX-RN success: One school's search for excellence. *Journal of Nursing Education*, 57(9): 554-556. https://doi.org/10.3928/01484834-20180815-0

[3] Murphy, E.K. (1989). The definition and purpose of professional licensure. *AORN Journal*, 49(4). https://doi.org/10.1016/S0001-2092(07)66818-5

[4] Oducado, R.M.F., & Penuela, A.C. (2014). Predictors of academic performance in professional nursing courses in a private nursing school in Kalibo, Aklan, Philippines. *Asia Pacific Journal of Education, Arts and Sciences*, 1(5): 21-28.

[5] Rosales, R., Arugay, Y., Divinagracia, C., & Castro-Palaganas, E. (2014). Analytical study of the nurses licensure examination performance of graduates of Philippine colleges of nursing. *Philippine Journal of Nursing*, 84(1): 4-20.

[6] Philippine Professional Regulatory Commission. Retrieved from https://www.prc.gov.ph/

[7] Bautista, J.R., Ducanes, G., & David, C.C. (2019). Quality of nursing schools in the Philippines: Trends and evidence from the 2010–2016 nurse licensure examination results. *Nursing Outlook*, 67(3): 259-268. https://doi.org/10.1016/j.outlook.2018.12.012

[8] Belo-Delariarte, R.G.B., Oducado, R.M.F., & Penuela, A.C. (2018). Terminal assessment of core nursing knowledge in a state university. *Asia Pacific Journal of Multidisciplinary Research*, 6(2): 10-17.

[9] Banua, A.S. (2017). Determinants of performance of nursing graduates in licensure examination. *BU R&D Journal*, 20: 113-118.

[10] Navarro, R., Vitamog, A., Tierra, R.J., & Gonzales D.M. (2011). Predictors of nursing board examination performance. *JPAIR Multidisciplinary Journal*, 6: 232-246.

[11] Ong, M., Palompon, D., & Banico, L. (2012). Predictors of nurses' licensure examination performance of graduates in Cebu Normal University, Philippines. *Asian Journal of Health*, 2(1): 130-141. http://dx.doi.org/10.7828/ajoh. v2i1. 122

[12] De Leon, J. (2016). Academic and licensure examination performances of BSN graduates: Bases for curriculum enhancement. *International Journal of Educational Policy Research and Review*, 3(4): 64-72. http://dx.doi.org/10.15739/IJEPRR.16.009

[13] Soriano, G.P. (2016). Relationship between academic performance and the nursing licensure examination of graduates from a city-subsidized university. *Philippine Journal of Nursing*, 86(1): 56-62.

[14] Mohan, R. (2016). Measurement, evaluation and assessment in education. Delhi, India: PHI Learning Private Limited

[15] Oducado, R.M.F., Frigillano, P.R.S., Gunce, J.J.T., Jover, P.L.B., Meliton, P.N., & Pangilinan, K.T. (2017). Guidance needs of nursing students in Iloilo City, Philippines. *PEERS Inc. Multidisciplinary Research Journal*, 1(2): 35-47.