

Exploring Learning Problems of Filipino Nurse Candidates Working in Japan: Based on the Results of a Practice National Board Examination of Japan Given in English

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Abstract

This article investigates the status of the education and training of Filipino nurse candidates who have been working in Japan under the Japan-Philippine Economic Partnership Agreement (JPEPA). A survey was conducted among Filipino nurse candidates, using a practice examination based on the English version of Japan's National Board Examination for Registered Nurses in 2009.

Categorized by area, the mean correct answer rate for nursing-related questions ranged between 61% and 73%; the rate for questions concerning basic knowledge of body functions and diseases ranged between 55% and 57%. There was a large gap in terms of the results of the examination between those who had previously seen the exam questions and those who had never seen them. While 57.1% of those who had previously seen the questions satisfied the acceptance criteria, only 23.7% of those who had never viewed the test satisfied it. Based on these results, the factors which serve as obstacles that Filipino nurse candidates encounter in passing the national examination include not only difficulties in acquiring Japanese proficiency but also differences between Japan and the Philippines in respect to the nursing education curriculum and basic nursing policies.

Keywords: Economic Partnership Agreement (EPA), foreign nurse candidates, practice national board examination in English

I Introduction

With the EPAs between Japan and Southeast Asian nations in effect, candidates for registered nurse and certified care-worker positions have arrived in Japan — from Indonesia beginning in fiscal year 2008 and from the Philippines from 2009. They have been assigned to the hospitals and care facilities throughout Japan for education and training, which has been left to the discretion of each host institution. Preparation for the national examination was also assigned to the host institutions and the candidates themselves.

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Both Filipino and Indonesian nurse candidates may take the national examination for nurses up to three times during their stay in Japan as a general rule. The question of how many candidates will eventually pass the examination has become an important social issue publicized widely by the mass media.

Because the national examination is given in Japanese for foreign nurse and care person candidates as well as the Japanese candidates, the language barrier can be a major problem. Some officials and mass media reporters argue that, rather than requiring foreign candidates to take the examination in Japanese, a separate examination for foreigners should be formulated, with questions available in Roman characters as well as *kanji* and permitting dictionaries during the tests. However, Japan's Ministry of Health, Labour and Welfare (MHLW), which governs the national examination maintains the policy of "not discriminating against foreign candidates" as of May 2010.

In this study, the authors investigated the status of the education and training of foreign nurse candidates currently training or working at various health-care facilities in Japan and reviewed relevant issues. Concurrently, we conducted a survey among the first group of Filipino nurse candidates, using a practice examination based on the English version. This was to test the theory that if a score was high in the English practice examination, the primary language used in education in the Philippines, it would imply that the issue to be overcome is primarily a language problem. In contrast, if high scores were not achieved, that would indicate that the problems are not just language based: there must also be additional factors that prevent the foreign candidates from knowing the correct answers. The goal of this study is to evaluate and interpret this matter.

II Subjects and Methods

The subjects of this study were the first group of 93 Filipino nurse candidates who came to Japan under the Japan-Philippine EPA project, May 10, 2009. Following Japanese language training at the Association for Overseas Technical Scholarship (AOTS), they were assigned to hospitals October 29. Of these 93 candidates, 59 agreed to participate in the survey, representing 63.4% of the first group of Filipino nurse candidates.

The Kyushu University's research team and AOTS conducted the survey simultaneously on December 26, 2009 at four locations throughout Japan (Adachi Ward in Tokyo, Osaka City, Nagoya City and Fukuoka City). The time allocation was the same as that used for national examinations in Japan, i.e., 2 hours 40 minutes in the morning and the same hours and minutes in the afternoon. The English version of the 98th National Board Examination for Registered Nurses as administered February 22, 2009, prepared by Kyushu University and reviewed by health workers fluent in English, was used in the survey. The 59 candidates took the practice examination approximately two months after they were assigned to health-care facilities following Japanese language training.

The computer-scored questions are listed in Table 1. There were a total of 240 questions, 120 for each session.

Most questions required candidates to select the correct answer from four possible choices, but some questions offered five choices or wanted two answers from among five options. Questions were

Table 1 The Contents of the National Board Examination for Registered Nurses in Japan

The Number of Questions: 240 (120 in the morning and 120 in the afternoon)
Answer Format: Mark-sensing (generally, mark one among four answers)
The Categories of Questions:
1. Compulsory Questions
2. Structures and Functions of the Human Body
3. Constitution of Disease and Promotion of Recovery
4. Social Security System and Health of Living People
5. Fundamentals of Nursing
6. Home Health-Care Nursing
7. Adult Nursing
8. Geriatric Nursing
9. Pediatric Nursing
10. Maternal Nursing
11. Psychiatric Nursing

Table 2 Acceptance Standards for the 98th National Examination for Nurses

Compulsory Questions	Pass: Minimum score of 24 out of 30 points Fail: A score of 23 points or less
General Questions Situational Questions	Pass: Minimum score of 174 of 270 points

A score of 24 points or more on Compulsory Questions and a score of 174 points or more on General and Situational Questions are required for a passing grade.

divided into 11 sections: ① Compulsory Questions, ② Structures and Functions of the Human Body, ③ Constitution of Disease and Promotion of Recovery, ④ Social Security System and Health of Living People, ⑤ Fundamentals of Nursing, ⑥ Home Health-Care Nursing, ⑦ Adult Nursing, ⑧ Geriatric Nursing, ⑨ Pediatric Nursing, ⑩ Maternal Nursing, and ⑪ Psychiatric Nursing (see Table 1). Compulsory Questions are defined as basic questions across all areas.

The acceptance criteria for the 98th National Board Examination for Registered Nurses are shown in Table 2. There are 30 questions under the Compulsory Questions section, each with a value of one point. In order to obtain a passing grade, a score of 24 or higher was required. If the score for the Compulsory Questions section was 24 or higher, the candidate could pass the examination if she/he scored 174 or higher out of the total 270 points for the General Questions/Situational Questions. The score was calculated giving 1 point for each correct General Question and 2 points per correct Situational Questions.

III The Results

The percentage of correct answers in each section are listed in descending order: 79% for Compulsory Questions, 73% for Home Health-Care Nursing, 67% for Pediatric Nursing, 66% for Psychiatric Nursing, 65% for Adult Nursing, 63% for Geriatric Nursing, 61% for Maternal Nursing, 60% for Fundamentals of Nursing, 57% for Social Security System and Health of Living People, 56% for Constitution of Disease and Promotion of Recovery and 55% for Structures and Functions of the Human Body.

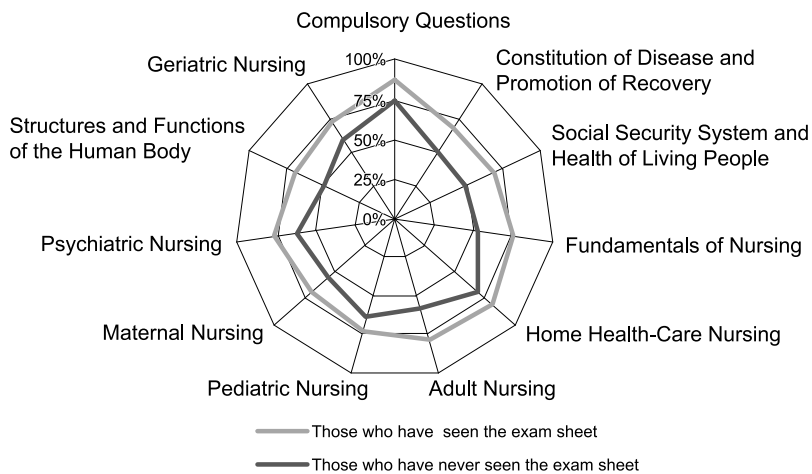
Table 3 shows the distribution of scores per area. Examination of the results exposed a large gap between the 21 candidates who had previously seen the questions in the 98th National Examination for nurses (either in Japanese or in English) and 38 who responded that they had never seen the questions. Those who had seen the questions had higher scores in all areas. Seven gave correct answers to more than 90% of the questions across the board.

The final scores of the 59 Filipino nurse candidates relative to the acceptance criteria are shown in Table 4. Of the 21 nurse candidates who had previously seen the exam questions, 12 (57.1%) satisfied the acceptance criteria. Only 9 of the 38 candidates (23.7%) who had never seen the exam questions satisfied the acceptance criteria; 29 (76.3%) failed.

An analysis of the answer rates demonstrates identifiable differences between those with high correct answer rates and those which were low. Table 5 shows that the 48th question in the afternoon session concerning cancer patient care posted the lowest correct response, 12%. It required one answer from among four options, therefore the 12% correct rate indicated that the majority of candidates selected the incorrect option.

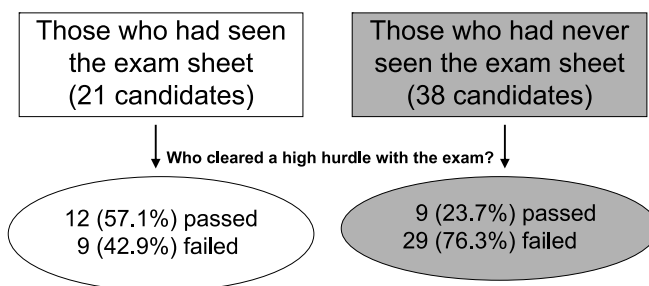
Questions for which the correct answer rate was 27% are shown in Tables 6 and 7. The question

Table 3 The Distribution of Scores by Area Achieved by 59 Filipino Nurse Candidates



Note: Exam venues: Tokyo, Nagoya, Osaka and Fukuoka Feb. 22, 2010

Table 4 Scores of 59 Filipino Nurse Candidates Who Took the Exam in English



The Findings:

The passing rate and average scores are significantly different as established by the exam results.

Table 5 Correct Answer Rate, 12% — General Question

A patient taking morphine sulfate sustained-release tablets for cancer pain twice a day (9:00, 21:00) complains of pain at 19:00.

Which of the following is most appropriate in this situation?

1. Administer hypnotics.
2. Administer morphine hydrochloride in water.
3. Intramuscular injection of pentazocine.
4. Administer morphine sulfate sustained-release tablets before 21:00.

Table 6 Correct Answer Rate, 27% — General Question

Which of the following is a correct combination of a digestive tract problem and its cause?

1. Paralytic ileus twist in the intestines
2. Strangulatic ileus gallstone attack
3. Atonic constipation diabetic autonomic disorder
4. Convulsive constipation morphine sulfate intake

Table 7 Correct Answer Rate, 27% — General Question

Which of the following is **not a major issue** listed in “Healthy Parents and Children 21”?

1. Enhancing health measures during adolescence
2. Supporting combined child-rearing and working
3. Facilitating the peaceful development of children’s minds
4. Ensuring safety and comfort regarding pregnancy and delivery
5. Developing environments to maintain/improve the medical level of a child’s health

Table 8 Correct Answer Rate, 100% — Compulsory Question

How much is the self-pay ratio for general insured persons with national health insurance?			
1. 10%	2. 20%	3. 30%	4. 40%

Table 9 Correct Answer Rate, 98% — Compulsory Question

Which of the following is an action of nitroglycerine?	
1. Pressurization	2. Hematogenesis
3. Vascular dilation	4. Immune suppression

in Table 6 is the 26th question in the morning session concerning adult acute care and that in Table 7 is the 111th question in the morning session concerning the maternal and child health plans formulated by Japan's Ministry of Health, Labour and Welfare.

In contrast, Tables 8 and 9 show the questions for which the correct answer rate was high. The only question that received a 100% correct response was the 2nd question in the afternoon session concerning national health insurance (Compulsory Questions, refer to Table 8).

The second highest correct response was for the 10th question in the morning session concerning nitroglycerin with a 98% correct answer rate (Compulsory Questions, refer to Table 9).

IV Analysis

The 59 Filipino candidates that took the practice examination posted a mean correct answer rate for Compulsory Questions of nearly 80%. This suggests that the majority of the candidates had sufficient basic knowledge. Compulsory Questions included those concerning Japan's birth rate, national health insurance and Act on Public Health Nurses, Midwives and Nurses. However, the correct answer rate for these questions were not substantially lower than those for other questions. Therefore, it can be concluded that candidates have made efforts to gain sufficient basic knowledge of nursing in Japan.

While the mean correct answer rates in the nursing area ranged between 61% and 73%, those for the questions concerning basic knowledge of body functions and diseases dropped to between 55% and 57%. The degree of difficulty in different sections of the National Examination is not equivalent and the Ministry of Health, Labour and Welfare does not publish the results. It is therefore impossible to generalize the results.

Narrowing the conclusions to the candidates who sat in on this examination, it was possible to determine that, while the score level was more or less acceptable with respect to the questions concerning the actual nursing assessment and nursing assistance in clinical settings, it was not very satisfactory with respect to the questions concerning physical features, basic knowledge of diseases, and the social welfare system.

As is also the case with Japanese nurses, the expert knowledge required for competent performance in the assigned department (ward) is retained but knowledge that is not essential tends to be lost. Also

the Filipino nurse candidates may have a lapse in time since they left their nursing jobs.¹⁾ Their most recent focus may have been on improving their Japanese language and the measures needed to adapt to living in Japan. The results indicate that at the time of the practice examination, they had not fully acquired comprehensive knowledge in nursing and medicine. In this respect, it is necessary for those who plan to take the national examinations in the future to study in such a manner as to be able to recall the knowledge they already should have acquired.

There was a clear difference in scores between those who had previously seen the exam questions and those who had not. While 12 (57.1%) of those who had seen the questions satisfied the acceptance criteria, only 9 (23.7%) of the others passed.

The authors do not have sufficient information to determine how those respondents accessed and reviewed the questions of the 98th National Board Examination. Some may have obtained the contents by themselves or through their Japanese preceptor. The authors learned that some Japanese hospitals obtained the English version of the national exam and used it as teaching materials for foreign nurse candidates assigned to those hospitals.

The questions on the national exam for registered nurses in Japan are released to the examinees and made public in the home page of the Ministry of Health, Labour and Welfare following the examination. This may be the reason some Filipino candidates were able to access the exam but others could not.

One of the candidates who had previously seen the questions gave the correct answers to all 240 questions for a perfect score of 300. Seven others achieved nearly perfect scores. This suggests that these candidates may have prepared for the practice examination by studying the questions in the English version of the national examination for registered nurses, that the scores do not accurately assess the status of education and training of foreign nurse candidates, and that it may not necessarily be a factor to take into account when formulating study modules to help prepare for national examinations.

It would be possible for the authors to analyze the results of the survey in comparison with the level of attainment of Japanese nursing examinees if the results of the national examination by content for Japanese examinees were available. Such results are not disclosed to the public in accordance with Japan's Ministry of Health, Labour and Welfare's policy. The Philippine government also conducts a national board examination for registered nurses every year but it has never released the contents of the exam. Thus, it is quite difficult to compare them with Japan's nursing exam.

The question with the lowest answer rate (12%) was that concerning cancer patient care. It is considered difficult even for Japanese students. The correct answer is: "2-Oral administration of morphine solution," but many candidates incorrectly selected "4-Oral administration of controlled-release morphine sulfate earlier than 21:00 hours." This result may reflect the differences between Japan and the Philippines with respect to nursing education curriculum and policies.

The author found that the Philippine nursing curriculum required completion of many more classes and clinical training courses, than the Japanese equivalent [Kawaguchi 2009]. The results from this

1) Under the Japan-Philippine EPA, Filipino nurses accepted to Japan as nurse candidates are required to have work experiences as registered nurses for at least three years.

practice national examination for Filipino nurses indicate that their average correct results are relatively high for questions concerning home health-care nursing (73%), pediatric nursing (67%) and psychiatric nursing (66%), but relatively low in those concerning the structures and functions of the human body (55%). This tendency (relatively good knowledge in nursing but relatively poor knowledge in medicine) can be found even among Japanese nursing students.

It remains difficult to correlate the interrelations between the Philippine nursing curriculum and the results of the practice examination for Filipino nurses. Identifying the differences between the content of nursing lectures and examinations in the Philippines and those in Japan will be important for valid studies.

The 111th question in the morning session, for which the correct answer rate was 27%, concerns the maternal and child health plans formulated by the Ministry of Health, Labour and Welfare. The candidates would have no knowledge of the question unless they had studied for the National Examination. In this context, it was unrealistic to expect a high correct answer rate for this question only a few months after candidates were assigned to health-care facilities.

The only question that had a correct answer rate of 100% was the second question in the afternoon session (Compulsory Questions) concerning national health insurance. It concerns the proportion of medical expenses that the general insured person should assume. On arrival in Japan, the candidates subscribed to health insurance. At that time, the officer in charge is required to provide an explanation of the program. The incoming Filipino candidates would consider this knowledge necessary for their personal benefit. As the correct answer rate was less than 100% for other, relatively easy nursing-related questions, the fact that the correct answer rate was 100% exclusively for this question is interesting. The 10th question in the morning session (Compulsory Questions) concerning nitroglycerin posted the second-highest correct answer rate (98%). Even though this is basic knowledge, necessary for nurses to know, not all managed to give the correct answer.

V Conclusion

This article is based on the results of the survey using the English version of the national examination. What can be concluded is that obstacles for the Filipino nurse candidates in passing the national examination might include not only language problems but also differences in the nursing education curriculum and basic nursing policies between Japan and the Philippines. These factors may provide some suggestions for assisting the candidates in improving on the exam in Japan. Study modules designed to help them prepare for national examinations should take the issues discussed in this article into account.

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References

- Japan, Kosei Rodo-sho [Ministry of Health, Labour and Welfare]. 2009. Dai Kyuju-hachi-kai Kangoshi Kokka Shiken Mondai [Questions in the 98th National Examination for Nurses] (the examination took place on February 22, 2009). Tokyo: Ministry of Health, Labour and Welfare.
- Kawaguchi, Yoshichika. 2009. Nihon, Firipin, Indonesia no Kango Kyoiku Karikyuramu no Hikaku [A Comparative Study of the Curricula of Nursing Education in Japan, the Philippines and Indonesia]. *Kyushu Daigaku Ajia Sogo Seisaku Senta Kyo* [Bulletin of Kyushu University Asia Center] 3: 91–104.