ABSTRACT

FOREIGN-EDUCATED NURSES

By

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The nurse shortage has occurred in the healthcare industry for many years and the trend will continue for the next decades. Foreign-educated nurses have not been a new issue to solve the nurse shortage for the past decades. However, foreign-educated nurses are still the minority in most healthcare facilities. This study uses secondary data from American Hospital Association Annual Survey Database collected in 2008 to examine whether facilities which hire foreign-educated nurses (including contracted or agency nurses) would increase to fill Registered Nurse vacancies or hire more foreign-educated nurses in 2008 comparatively in the 2007. The result showed that obtaining race and ethnicity information from patients, obtaining language information from patients, having a leadership development program, having a diversity strategy or plan, having leadership succession planning and having career development resources for administrators were significantly associated with whether facilities which hire foreign-educated nurses (including contract or agency nurses) would increase their hiring to fill RN vacancies or hire more foreign-educated nurses in 2008 compared to 2007.

FOREIGN-EDUCATED NURSES

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CHAPTER 1

INTRODUCTION

Overview

In recent years, one of the major issues in the healthcare industry is the nurse shortage. Historically, in the United States, a nurse shortage has occurred in the healthcare industry for the past several decades. The demand for nurses is increasing in the healthcare industry because healthcare organizations expand facilities in order to support the demand of consumers. Therefore, importing nurses, mainly RNs from around the world to fill the gap of nursing shortage has not been a new topic for 60 years (Brush & Berger, 2002). The number of foreign-educated nurses plays a big role in the healthcare system and has threatened the domestic market gradually until the society has fears about foreign-educated nurses. Now, the number of foreign-educated nurses is the minority part of the U.S. registered nurse workforce. The latest data show that foreign nurses today are around 3.7% of the U.S. registered nurse workforce (National Foundation for American Policy [NFAP], 2007). It is a smaller proportion than in other countries. In New Zealand, foreign nurses are around one fourth of the total nursing workforce. In the United Kingdom and Ireland, foreign nurses are around 8%. Furthermore, foreign nurses are only 6%t in the nurses system. Therefore, the percentage of foreign nurses in the United States is the lowest in the English-speaking nations around the world (Aiken, Buchan, Sochalski, Nichols, & Powell 2004). The number of foreign-educated nurses in the United States is small compared to the number in other countries.

Although the proportion is a very small number, many hospitals have recruited foreign nurses to fill staff-nurse vacancies in large urban areas (Brush & Berger, 2002). The main reason is that the domestic nurses have been concerned about salary. The average salary for nurses has increased due to the inflation. According to a Legislative Analyst's Office study of nurses in California in 2007, this report stated that salaries for registered nurses have soared for years because of inflation. In 2000, the average salary for a full-time nurse was only $52,000 and increased to $69,000 in 2006. It increased around 32% for this 6 year period (Hill, 2007). The healthcare system cannot control the expenditures in the budget because they cannot control the demand and supply in the healthcare system. Therefore, importing nurses from other countries helps hospitals balance the demand for domestic nurses by increasing the supply side and then allowing them to control total personnel costs in the budget. However, many domestic nurses bring the viewpoint of quality care to the table to protect their jobs. The government has protected the domestic jobs with the immigration policy. For example, foreign-educated nurses must pass the exam called NCLEX-RN (National Council Licensure Examination-Registered Nurse). However, it does not prevent foreign-educated nurses from coming to the United States. Conversely, many nations, such as the Philippines and India, have accepted foreign educated nurses in terms of quality of work into their healthcare industry. Therefore, foreign- educated nurses have increased their role in healthcare workplaces and will continue to have an impact on the market share in the nurse workforce of the future.

Research Question

The objective of this project is to examine the demand for foreign- educated nurses to fill job vacancies in the workplace and which countries provide the largest number of foreign-educated nurses. The study used data from the American Hospital Association (AHA). This annual survey of hospitals provided data and information on nurse staffing in a large sample of U.S. hospitals. The questions asked of respondents on the survey were:

Did your facility hire more foreign-educated nurses (including contract or agency nurses) to help fill RN vacancies in 2008 vs 2007?

Does your hospital gather information on a patient's race/ethnicity at any point during their stay?

Does your hospital gather information on a patient's primary language at any point during their stay?

Does your hospital or health system currently have or plan to develop, implement, or evaluate a leadership development program?

Does your hospital or health system currently have or plan to develop, execute, or evaluate a diversity strategy or plan?

Does your hospital or health system engage in leadership succession planning?

Does your hospital or health system currently provide career development resources to administrators? (Health Forum, 2008)

In this research study, the Statistical Package for the Social Sciences (SPSS) was used to analyze data and information from AHA Annual Survey 2008.

Literature Review

Researching the foreign- educated nurses topic, all Internet and paper sources were explored and examined by using the terms (keywords) of "Foreign-Educated Nurse," Nursing Shortage," "Nurse Migration," and "Foreign Educated Nurse Recruitment."

Nurse Shortage

There is a global shortage of nurses (Buchan & Calman, 2004). The United States is the one of several developed countries that has faced severe nursing shortages (Buchan et al., 1997; Health Resources and Services Administration [HRSA], 2002; Sibbald, 2000). Currently, the nurse workforce in the American healthcare industry is the largest of any country in the world (Aiken, 2007). The number of professional nurses (RNs) was almost 3 million as of 2004, and grew by over 1.4 million between 1980 and 2004 (U.S. Department of Health and Human Services [USDHHS], 2006). However, it is clear that the number of nurses in the United States is not sufficient for the population. According to the report from the U.S. Department of Health and Human Services (2002), *Projected Supply, Demand, and Shortages of Registered Nurses: 2000–2020,* the demand for nurses is growing compared to other job sectors in the United States and nursing schools cannot keep up with the demand for nurses. Moreover, the report estimates that the United States will need nurses to fill more than 800,000 jobs before 2020. In the Organization for Economic Co-operation and Development (OECD) health working papers, they estimate that the projections of the U.S. RN shortage will grow from 405,800 in 2010 and the number will up to 1,016,900 jobs in 2020 (Cheung,2008). In the future, the United States will need to meet the challenges of the nurse shortage.

Nursing Supply

The supply of nurses is not sufficient to meet demand in the current system. Many students would like to study nursing because they have more chance to get jobs than other jobs in the future. However, they cannot study in nursing school because nursing schools do not have enough space for all of the prospective students to study in nursing school because they do not have enough resources to increase facilities for all potential nursing students. Every year many schools have rejected many qualified applications because they do not have enough spaces for all applicants. Moreover, many students cannot pursue their nursing education because the federal nursing education subsidies are lower than the federal subsidies for medical education. Although state universities and community colleges try to cooperate with local hospitals and health systems in order to subsidize nursing education, there are still not enough students in the nursing programs. Another concern of the nurse shortage is native nurses' retirement. This concern will be significant over the next decade (Buerhaus, Staiger, & Auerbach, 2000). Every year the number of retirements among nurses in the system is increasing. During 2002-2012, some nurses expected to retire in that period. This number is around 478,000 nurses (U.S. Department of Labor Bureau of Labor Statistics, 2005). In addition, inactivity is another interesting aspect of the nurse supply. In 2004, 17% of all licensed RNs were not working in nursing and 40% of all inactive nurses were still carrying active licenses (Cheung, 2008). Normally, the average of all inactive nurses does not go over 22%. Overall, the nursing schools are not able to generate enough nurses to meet the demand of nurses in the market. Also, the supply is decreasing because of retirements and inactivity. Therefore, imported nurses are used to fill the gap.

The Recruiting Agencies

International recruiting has become more commonly used to bring foreign-educated nurses to fill U.S. vacancies. Many hospitals are interested in using international agencies although they pay more for these than domestic nurses. Normally, retention of nurses is a big problem and domestic nurses change their jobs because of poor job satisfaction. Therefore, hospitals spend a long time training newcomers. Also, most hospitals in rural areas do not have enough data and information pools. Unlike agencies, it is quite clear that they have lots of foreign-educated nurses when hospitals request them. Agencies guarantee the retention ratio in the system and foreign-educated nurses normally have a contract with agencies. It guarantees that hospitals have a steady supply of nurses in the system. Moreover, presently, foreign-educated nurses are accepted more easily now in hospitals than the past. Nevertheless, there are no data currently to estimate how the healthcare organizations may be using these international recruiting agencies.

Immigration Trends in the United States

More than 50 years healthcare organizations in the United States have imported foreign nurses from abroad to solve nurse shortages, not only in acute care hospitals but also for positions in nursing homes (Aiken et al, 2004; Brush & Berger, 2002). However, the number of foreign-educated nurses normally did not exceed 4,000-5,000 per year (Buerhaus, Staiger, & Auerbach, 2004). Brush, Sochalski, and Berger (2004) noted that the proportion of foreign nurses in the United States workforce is increasing until the proportion is above 5% for the last two decades. Some people expected that the ratio of foreign-born nurses in the United States might be up to 14% before 2010 (Auerbach, Buerhaus, & Staiger, 2007). Another study estimated that the proportion of foreign-

educated nurses might be up to 15.2% in the future (Polsky, Ross, Brush, & Sochalski, 2007). There is no perfect source of data and information on foreign-educated nurses in the United States because it is hard to estimate the actual number of foreign-educated nurses. Therefore, the numbers of nurses who are passing the NCLEX exam are used to estimate nursing migration because not only domestic but also international nurses must pass this test for licensure to practice. During 1994-2006, the number of non-native RNs who passed the NCLEX exam increased from 7,000 to 21,000 within two decades. It tripled within 16 years until the number of non-native RNs was up to 16% of overall RNs (Cheung, 2008). One study shows that the proportion ranges from 12.0% to 15.2% of the U.S. nurse workforce (Aiken et al., 2004; Polsky et al., 2007). Foreign-educated nurses are not only working in rural areas but also working in urban areas. In 2004, the National Sample Survey of Registered Nurses showed that the majority of foreign-educated nurses work in urban areas. In California, it was nearly one fourth of all foreign-educated nurses, approximately 90,000 foreign-educated nurses. In New York and Florida nearly 10% of their nursing workforce was foreign educated (NFAP, 2007). It is possible that importing foreign-educated nurses would create nursing shortages around the world. Therefore, migration of nurses is an international concern (Aiken et al., 2004; Buchan & Calman, 2004; Kingma, 2006).

Nurse Immigration Policy

Policy makers are concerned about the U.S. nurse shortage but they cannot allow foreigners to take American jobs. It is quite clear that recruitment from abroad is one strategy to solve the United States nurse shortage. Therefore, for many decades, the government has not designed visas for imported nurses. However, the United States did

provide temporary visas. Firstly, in 1990, under H1.A visas, the United States allowed foreign-educated nurses to work 3 years before they are extended by facilities. Secondly, H1-B visas allowed for professionals and researchers. Unfortunately, many foreign-educated nurses could not apply for these visas. However, they might work in the United States through the North American Free Trade Agreement (NAFTA) agreement. Lastly, in 1999, H1-C visa for nurses helped hospitals in designated shortage areas. Nevertheless, these visas are limited to only 500 visas within 14 hospitals by states. Furthermore, all employers had to pay a fee of around for 250 dollars for every application and employers cannot extend visas into the future. In 2005, interested groups pursued the government to allocate 50,000 visas and reprogram to the Philippines, India, China, and Mexico—for nurses and physical therapists (Cheung, 2008). Although the government gave many visas to foreign-educated nurses over the years, the government has still limited the number of foreign-educated nurses. So far, the government has not designed visas for imported nurses but it is quite clear that nurses are still immigrating to the United States although they might wait more than 5 years to work in the United States. Moreover, although all foreign-educated nurses already have visas, they must pass oral and written English exams as well and standardized tests. Also, experience is another topic which facilities consider when evaluating applicants. Therefore, it is not easy for all foreign-educated nurses to work in the United States. In the United States, the role of the government in solving the nurse shortage is unclear and the government is not interested in this topic. Therefore, policy has been confused. The government limited the wave of imported nurses by using the visa policy. Meanwhile, the

government also approved work permit visas for nurses when nurse shortages occurred in the system.

Foreign-educated nurses. In the United States there is literature on foreign-educated nurses in terms of the macro issue (Aiken et al., 2004; Brush,1999; Brush & Berger, 2002; Brush et al.,2004; Davis & Nichols, 2002; Flynn & Aiken, 2002; Kline, 2003; Xu, 2003; Xu & Kwak, 2005; Xu, Xu & Zhang, 1999). There is large number of research studies related to how foreign-educated nurses have an influence in the labor market. Nevertheless, many studies have an attitude about foreign-educated nurses that characterizes them in terms of aliens or invaders. On the other hand, many foreign-educated nurses already have green cards or United States citizenship. The researchers cannot estimate the number of foreign educated- nurses in the system because foreign-educated nurses might change status from imported nurses to domestic nurses. Moreover, many studies lack empirical data such as the number of foreign-educated nurses who live and work in the United States. Moreover, the data and information on foreign-educated nurses mostly comes from the Commission on Graduates of Foreign Nursing Schools (CGFNS) examination or agency data and information. Therefore, they do not have direct data to estimate the number of foreign-educated nurses. For the CGFNS examination, they know only the number of nurses who passed the examination in each group that took the examination, but they do not know the number of nurses who already had a job at the time they passed the examination. There is also no data on the number of nurses whose status changes, because some hospitals change the status for some foreign-educated nurses who work effectively. Overall, previous research does not have data and information on the number of foreign-educated

nurses in the system and only the number of nurse immigrants is known. However, Xu and Kwak (2005) mention that most of the research literature lacks empirical data and information because the government does not have an ideal source of information on nurse immigration. There are four main sources: the U.S. Department of Homeland Security, the U.S. Population Census; the National Council of State Boards of Nursing (NCSBN) and the National Sample Survey of Registered Nurses (NSSRN). As a result, there is limited data and information on the number of foreign-educated nurses. However, a study by Mejia et al. (1979) attempted to collect and analyze data and information for explaining the migration of nurses around the world. Mejia et al. corrected data and information on nursing immigration during from 1960-1970 to identify the United States and other hosts like Canada and the United Kingdom. This study presents a model of migration and attempts to explain the phenomenon of nurse immigration. Most of the findings reflect macro issues such as nurse migration and a supply model of foreign-educated nurses.

The Philippines Case

In the area of nursing immigration trends, most research has focused on the Philippines because The Philippines has overwhelmed the foreign-educated nurse market during the past 50 years. Therefore, many researchers examined why the Philippines is higher than any other nation in the world in the number of nurses that leave there for positions in other countries. The Philippines has been the factory that has been sending nurses to the United States and the rest of the world during the last 50 years (Choy, 2004). In 1970, the government of the Philippines had a national nurse policy (Kingma, 2006). In 2004, the Philippines estimated that many Filipinos received money (around $8

billion) from nurse migration. Therefore, it has become important to the local economy for nurses who have left the Philippines to send home money, which helps business in the Philippines (Overland, 2004). At the same time, despite of Philippine success, many nations such as China and India have started exporting nurses into the global labor market. In China, many nurses have trained as nurses as in English programs, the so called "English nursing programs" (Xu, 2006). In India, they have a 3-year international nursing program to prepare nurses for the global market (Evans, 2006). This majority of studies showed that the Philippines still retains the top of market share in the foreign-educated nurse pool. There is a small amount of previous research about other countries such as Africa, Korea, Canada, China, and India. However, there is no research which compares all of the countries in the global nursing market

The Challenge of Foreign Educated Nurses in the Workplace

In this area, many previous studies have discussed how hard foreign- educated nurses work in healthcare facilities around the world. International nurses meet abundant challenges in outside countries (Xu, 2007). One challenge for foreign nurses is whether they can transition to international facilities and provide quality of care to patients. Many studies show that these challenges could affect patient safety and quality of care (Davis & Nichols, 2002; Xu, 2003; Xu, Gutierrez, & Kim, 2008; Yi, 1993). It is quite clear that foreign-educated nurses have different cultures and they face culture shock because they have different perspectives and attitudes when they move to the United States. They need time to adapt to their new environment because adaptation in a new environment can effect job satisfaction and job retention. Currently, most hospitals require foreign-educated nurses to participate in an orientation program. However, research has shown

that many programs in the industry spend too short of time span to train foreign nurses and employers to learn how to deal with the foreign-educated nurses (Miraflor, 1976; Xu, 2007a, 2007b; Yi, 1993). English as a second language is the biggest barrier among foreign-educated nurses because they cannot understand English clearly. Yi (1993) found that Korean nurses spent at least a couple of years to learn English and develop the ability to understanding fluently. Overall, the previous research has focused on the challenge of foreign-educated nurses in the workplace such as communication, culture and patient safety and quality of care. Some researchers comment that the supervisor should help foreign-educated nurses overcome their challenges. Many hospitals or healthcare organizations might use orientation to solve the problem. However, nowadays, no current data and information is available to compare the efficiency of foreign-educated nurses between the beginnings and the end. The challenge in the workplaces for foreign-educated nurses needs more measurements to estimate quality of foreign-educate nurses in the system.

In summary, the previous research on this topic is composed of three main parts: data and information, the Philippines case and the challenge of employing foreign-educated nurses in the workplace.

CHAPTER 2

METHODS

Overview of the AHA

The American Hospital Association (AHA) started the national survey of hospitals in the United States in1946. At the beginning, it collected data and information about services, utilization, personnel, and finances. In 1980, the survey sample grew from around 250 to over 1,000 hospitals. At the present, more than 6,500 hospitals throughout the United States complete the AHA Annual Survey online. The AHA Annual Survey Database is a valuable resource for marketing research within the health care industry and the survey has up-to-date information with comprehensive data available in terms of health care trends. In this survey can be found many sections such as demographics, organizational structure, facilities and services, utilization data, community orientation indicators, physician arrangements, managed care relationships, expenses, and staffing (Health Forum, 2008).

American Hospital Association

AHA data is the highest standard source for healthcare statistics on hospitals. Therefore, AHA data includes 98% of the pool of hospitals. Moreover, the AHA data collection effort cooperates with many organizations such as the Center for Medicare and Medicaid, national organizations, state, and local associations and local governments to identify non-registered hospitals so that the data and information in the survey is as

complete as possible. In the process, AHA collects data and information every year on participating hospitals and then creates a data set, which is available to researchers and practitioners for a fee. However, when data are missing, AHA imputes missing data values and information by estimating from the last year's responses and from other hospitals which have a similar size and orientation. In some cases, data and information tend to misdirect or change unusually from one year to next year. In order to search for responses, AHA looks for previous reports and compares data and information in terms of hospital type, size and geographic area. If these are not consistent, AHA investigates and reexamines on a case by case basis and then the results in the final dataset are validated.

American Hospital Association Annual Survey Database

A recent study developed by the American Hospital Association's Health Research and Educational Trust and Health Forum and the University of California-Berkeley uses theory and the AHA survey data in order to identify a reliable set of five groups of health systems: Centralized Health Systems, Centralized Physician/Insurance Health Systems, Moderately Centralized Health Systems, Decentralized Health Systems, and Independent Hospital Systems. Each of these subsets within U.S. hospitals is based on how different their hospital services, physician arrangements, and provider-based insurance products are when compared to other organizations within the health system. The survey method used by the AHA is to send the mail survey which covers five main topics to around 6,407 members in the health system. In the survey, the various sections covered include the Reporting Period, Organizational Structure, Facilities and Services, Total Facility Beds, Utilization, Finances and Staffing, and Supplemental Information.

Study Design

This study uses secondary data obtained from the AHA to test several hypotheses. The hypotheses are whether several key independent variables listed below were associated with whether facilities which hire foreign-educated nurses (including contracted or agency nurses) would increase their hiring to fill RN vacancies and hire more foreign-educated nurses in 2008 compared to 2007.

Dependent Variable

The dependent variable is in section D of the 2008 AHA Annual Survey. The exact wording of the dependent variable is "Did your facility hire more foreign-educated nurses to help fill RN vacancies in 2008 vs. 2007?" There are four possible answers (0 did not hire, 1 = more, 2 = less, 3 = same). The field name is called "FORNRSA" (Health Forum, 2008).

Independent Variable

The independent variables to be considered for this study are found in Section E of the 2008 AHA Annual Survey. There are six independent variables. All of them have two answers as the response options (1 = Yes and 0 = No). The first variable is "Does your hospital gather information on a patient's race/ethnicity at any point during their stay?" The field name is called "GLACE." The second variable is "Does your hospital gather information on a patient's primary language at any point during their stay?" The field name is called "GLANG." The third variable is "Does your hospital or health system currently have or plan to develop, implement, or evaluate a leadership development program?" The field name is called "ILEAD." The fourth variable is "Does your hospital or health systems currently have or plan to develop, execute, or

evaluate a diversity strategy or plan?" The field name is called "DIVERS." The fifth variable is "Does your hospital or health system engages in leadership succession planning?" The field name is called "ELEAD." The last variable is "Does your hospital or health system currently provide career development resources to administrators?" The field name is called "DEVADM." (Health Forum, 2008).

TABLE 1. Dependent Variable

Description	Variable
Health care facilities that plan to hire more foreign-educated nurses	Y

TABLE 2. Independent Variables

Description	Variable
Race and ethnicity information collected on patients	X_1
Language information collected on patients	X_2
Leadership development program	X_3
Diversity strategy or plan	X_4
Leadership succession planning	X_5
Career development resources to administrators	X_6

Hypothesis Model

Hypothesis 1:

Health care facilities that hire or plan to hire more foreign-educated nurses will be more likely to collect race and ethnicity information than those facilities that do not hire or plan to hire more foreign-educated nurses.

Hypothesis 2:

Health care facilities that hire more foreign-educated nurses will be more likely to collect language information on their patients than those facilities that do not hire foreign-educated nurses.

Hypothesis 3:

Health care facilities that hire more foreign-educated nurses will be more likely to have a plan to develop, implement, or evaluate a leadership development program than those facilities that do not hire foreign-educated nurses.

Hypothesis 4:

Health care facilities that hire more foreign-educated nurses will be more likely to have a plan to develop, implement, or evaluate diversity strategy or plan than those facilities that do not hire foreign-educated nurses.

Hypothesis 5:

Health care facilities that hire more foreign-educated nurses will be more likely to engage leadership succession planning than those facilities that do not hire foreign-educated nurses.

Hypothesis 6:

Health care facilities that hire more foreign-educated nurses will be more likely to provide career development resources than those facilities that do not hire foreign-educated nurses.

In order to test these hypotheses, for this study, data came from he American Hospital Association (AHA) called the AHA Annual Survey and reported in 2008.

CHAPTER 3

RESULTS

Descriptive Statistics

The 2008 AHA Annual Survey sample was analyzed by the Statistical Package for the Social Sciences (SPSS) to determine whether facilities which hire foreign-educated nurses (including contract or agency nurses) would increase their hiring to fill RN vacancies or hire more foreign-educated nurses in 2008 compared to 2007.

When asked the question "Did your facility hire more foreign-educated nurse to help fill RN vacancies in 2008 vs. 2007?," around 4,066 of the 6,407 responses were valid. Fully half of the survey respondents did not hire foreign-educated nurses, 2.9% hired more foreign-educated nurses from 2007 to 2008, 3.9% hired fewer foreign-educated nurses than 2007 and only 6.2% hired the same proportion last year.

In response to the next question "Does your hospital gather race and ethnicity information at any point during their stay?," around 4,366 of the 6,407 responses were valid, while nearly 90.6% responded that race and ethnicity information were gathered on a patient' s race/ethnicity and only 9.4% did not collect race and ethnicity information.

When asked the further question "Does your hospital gather information on a patient's primary language at any point during their stay?," around 4,370 of the 6,407 responses were valid while nearly 81.7% indicated that their hospitals gather information on a patient's primary language at any point during their stay and only 18.3% reported

that their hospitals did not correct information on a patient's primary language at any point.

When asked the question "Does your hospital or health system currently have or plan to develop, implement, or evaluate a leadership development program?," around 4,358 of the 6,407 responses were valid, while around 80.3% cited that their hospitals had plans to develop, implement, or evaluate a leadership development program. On the other hand, only 19.7% did not have any plans to develop, implement or evaluate a leadership development plan.

In response to the question "Does your hospital or health system currently have or plan to develop, execute, or evaluate a diversity strategy or plan?," around 4,330 of the 6,407 responses were valid while nearly 63.6% of the respondents responded "Yes." It means that their workplace had plans to develop, execute, or evaluate a diversity strategy or plan. Only 36.4% disagreed that their workplaces had diversity strategy or plans.

When asked the question "Does your hospital or health system engage in leadership succession planning?," around 4,347 of the 6,407 responses were valid while nearly 72.4% engaged in leadership succession planning and only 27.6% responded that their hospitals did not have leadership succession planning.

When asked the question "Does your hospital or health system currently provide career development resources to administrators?," around 4,340 of the 6,407 responses were valid while nearly 82% responded that their hospitals provided career development resources to administrators and only 18% believed that their workplaces did not have any career development resources.

Secondly, in this area, six hypotheses were tested using the Statistical Package for the Social Sciences (SPSS). A chi-squared test was used to determine whether there were significant association between the dependent variable of planning to hire more foreign educated nurses and the six independent variables. In this study, 5% is the statistical significance level.

Hypothesis 1: Health care facilities that hire more foreign-educated nurses will be more likely to collect race and ethnicity information than those facilities that did not hire foreign-educated nurses.

In Table 3, around 78.7% of all hospitals which gathered information on a patient's race and ethnicity at any point during their stay did not hire more foreign-educated nurses to help fill RN vacancies in 2008 comparative to 2007. On the other hand, nearly 89.8% of all hospitals which did not gather information on a patient's race and ethnicity at any point during their stay did hire more foreign-educated nurses to help fill RN vacancies in 2008 comparative to 2007.

According to the Pearson Chi Square value of 28.675 and $P = 0.0000$, the result of the Chi-square test demonstrates that there was a significant association between two variables (foreign-educated nurses and whether the hospital collects race and ethnicity information from patients). This means that health care facilities that hire more foreign-educated nurses will be more likely to collect race and ethnicity information than those facilities that did not hire foreign-educated nurses.

TABLE 3. The FORNRSA and GRACE Crosstabulation Test

Crosstabulation			Race		Total
			0.00	1.00	
Foreign	0.00	Count	334	2,862	3,196
		Expected Count	296.6	2,899.40	3,196
		% within foreign	10.5%	89.5%	100.0%
		% within race	89.8%	78.7%	79.7%
	1.00	Count	7	176	183
		Expected Count	17.0	166.0	183.0
		% within foreign	3.8%	96.2%	100.0%
		% within race	1.9%	4.8%	4.6%
	2.00	Count	6	236	242
		Expected Count	22.5	219.5	242.0
		% within foreign	2.50%	97.50%	100.00%
		% within race	1.60%	6.50%	6.00%
	3.00	Count	25	363	388
		Expected Count	36.0	352.0	388.0
		% within foreign	6.40%	93.60%	100.00%
		% within race	6.70%	10.00%	9.70%
	Total	Count	372	3,637	4,009
		Expected Count	372.0	3,637	4,009
		% within foreign	9.30%	90.70%	100.00%
		% within race	100.00%	100.00%	100.00%

TABLE 4. The FORNRSA and GRACE Chi-Square Test

Chi-Square	Value	*df*	Asymp. Sig. (2-sided)
Pearson Chi-Square	28.675[a]	3	0.000
Likelihood Ratio	35.556	3	0.000
Linear-by-Linear Association	17.973	1	0.000
N of Valid Cases	4009		

Hypothesis 2: Health care facilities that hire more foreign-educated nurses will be more likely to collect language information than those facilities that did not hire foreign-educated nurses.

In Table 5, around 78% of all hospitals which gathered information on a patient's primary language at any point during their stay did not hire more foreign-educated nurses to help fill RN vacancies in 2008 comparative to 2007. Whereas nearly 87.6% of all hospitals which did not gather information on a patient's primary language at any point during their stay did hire more foreign-educated nurses to help fill RN vacancies in 2008 comparative to 2007.

The Chi-square test showed that there is an association between language information and foreign-educated nurses because the result (Pearson Chi square value = 39.000 and $P = 0.000$) was statistically significant. In summary, health care facilities that hire more foreign-educated nurses will be more likely to collect language information than those facilities that do not hire foreign-educated nurses.

TABLE 5. The FORNRSA and GLANG Crosstabulation Test

Crosstabulation			Language 0.00	Language 1.00	Total
Language	0.00	Count	648	2,551	3,199
		Expected Count	590	2,609.00	3,199
		% within foreign	20.3%	79.7%	100.0%
		% within race	87.6%	78.0%	79.7%
	1.00	Count	29	153	182
		Expected Count	33.6	148.4	182
		% within foreign	15.9%	84.1%	100.0%
		% within race	3.9%	4.7%	4.5%
	2.00	Count	19	224	243
		Expected Count	44.8	198.2	243
		% within foreign	7.8%	92.2%	100.0%
		% within race	2.6%	6.8%	6.1%
	3.00	Count	44	344	388
		Expected Count	71.6	316.4	388
		% within foreign	11.3%	88.7%	100.0%
		% within race	5.9%	10.5%	9.7%
	Total	Count	740	3,272	4,012
		Expected Count	740	3,272	4,012
		% within foreign	18.4%	81.6%	100.0%
		% within race	100.0%	100.0%	100.0%

TABLE 6. The FORNRSA and GLANG Chi-Square Test

Chi-Square	Value	*df*	Asymp. Sig. (2-sided)
Pearson Chi-Square	39.000[a]	3	0.000
Likelihood Ratio	44.519	3	0.000
Linear-by-Linear Association	33.663	1	0.000
N of Valid Cases	4012		

Hypothesis 3: Health care facilities that hire more foreign-educated nurses will be more likely to have a plan to develop, implement, or evaluate a leadership development program than those facilities that did not hire foreign-educated nurses.

In Table7, nearly 77.7% of all hospitals which had a plan to develop, implement or evaluate a leadership program did not hire more foreign-educated nurses to help fill RN vacancies in 2008 compared to 2007. On the other hand, nearly 87.5% of all hospitals which did not have a plan to develop, implement or evaluate a leadership program did hire more foreign-educated nurses to help fill RN vacancies in 2008 compared to 2007.

The Chi-square test demonstrates the association between hiring foreign-educated nurses and having a leadership development program was statistically significant because the Pearson Chi-square value = 52.118 and $P = 0.000$. Health care facilities that hire more foreign-educated nurses will be more likely to have a leadership development program than those facilities that did not hire foreign-educated nurses.

TABLE 7. The FORNRSA and ILEAD Crosstabulation Test

Crosstabulation			Leadership		Total
			0.00	1.00	
Leadership	0.00	Count	690	2,505	3,195
		Expected Count	628.3	2,566.70	3,195
		% within foreign	21.6%	78.4%	100.0%
		% within race	87.5%	77.7%	79.6%
	1.00	Count	39	145	184
		Expected Count	36.2	147.8	184
		% within foreign	21.2%	78.8%	100.0%
		% within race	4.9%	4.5%	4.6%
	2.00	Count	15	228	243
		Expected Count	47.8	195.2	243
		% within foreign	6.2%	93.8%	100.0%
		% within race	1.9%	7.1%	6.1%
	3.00	Count	45	345	390
		Expected Count	76.7	313.3	390
		% within foreign	11.5%	88.5%	100.0%
		% within race	5.7%	10.7%	9.7%
	Total	Count	789	3,223	4,012
		Expected Count	789	3,223	4,012
		% within foreign	19.7%	80.3%	100.0%
		% within race	100.0%	100.0%	100.0%

TABLE 8. The FORNRSA and ILEAD Chi-Square Test

Chi-Square	Value	*df*	Asymp. Sig. (2-sided)
Pearson Chi-Square	52.118[a]	3	0.000
Likelihood Ratio	62.173	3	0.000
Linear-by-Linear Association	41.256	1	0.000
N of Valid Cases	4012		

Hypothesis 4: Health care facilities that hire more foreign-educated nurses will be more likely to have a plan to develop, implement, or evaluate diversity strategy or plan than those facilities that did not hire foreign-educated nurses.

In Table 9, around 76.2% of all hospitals which had a plan to develop, execute or evaluate a diversity strategy or plan did not hire more foreign-educated nurses to help fill RN vacancies in 2008 compared to 2007. Whereas, nearly 85.8% of all hospitals which did not have a plan to develop, execute or evaluate a diversity strategy or plan did not hire more foreign-educated nurses to help fill RN vacancies in 2008 compared to 2007.

The Chi-square test showed that the association between having a diversity strategy or plan and foreign-educated nurses. The result of the test (Pearson Chi square value = 68.693 and $P = 0.000$) showed that there was statistically significant association between the dependent variable and have a diversity strategy or plan. This indicates that health care facilities that hire more foreign-educated nurses will be more likely to have a plan to develop, implement, or evaluate diversity strategy or plan than those facilities that did not hire foreign-educated nurses.

TABLE 9. The FORNRSA and DIVERS Crosstabulation Test

Crosstabulation			Diversity 0.00	Diversity 1.00	Total
Diversity	0.00	Count	1253	1,928	3,181
		Expected Count	1164	2,017.00	3,181
		% within foreign	39.4%	60.6%	100.0%
		% within race	85.8%	76.2%	79.7%
	1.00	Count	69	114	183
		Expected Count	67	116	183
		% within foreign	37.7%	62.3%	100.0%
		% within race	4.7%	4.5%	4.6%
	2.00	Count	48	193	241
		Expected Count	88.2	152.8	241
		% within foreign	19.9%	80.1%	100.0%
		% within race	3.3%	7.6%	6.0%
	3.00	Count	90	295	385
		Expected Count	140.9	244.1	385
		% within foreign	23.4%	76.6%	100.0%
		% within race	6.2%	11.7%	9.6%
	Total	Count	1460	2,530	3,990
		Expected Count	1460	2,530	3,990
		% within foreign	36.6%	63.4%	100.0%
		% within race	100.0%	100.0%	100.0%

TABLE 10. The FORNRSA and DIVERS Chi-Square Test

Chi-Square	Value	*df*	Asymp. Sig. (2-sided)
Pearson Chi-Square	68.693[a]	3	0.000
Likelihood Ratio	73.489	3	0.000
Linear-by-Linear Association	60.779	1	0.000
N of Valid Cases	3990		

Hypothesis 5: Health care facilities that hire more foreign-educated nurses will be more likely to engage leadership succession planning than those facilities that did not hire foreign-educated nurses

In Table 11, around 78% of all hospitals which engaged in a leadership succession planning did not hire more foreign-educated nurses to help fill RN vacancies in 2008 compared to 2007. On the other hand, nearly 84.2% of all hospitals which did not engage in a leadership succession planning did not hire more foreign-educated nurses to help fill RN vacancies in 2008 compared to 2007.

The Chi-square test demonstrated that the association between these two variables (leadership and foreign-educated nurses) was statistically significant because the Pearson Chi square value was 26.998 and $P = 0.000$. Overall, Healthcare facilities that hire more foreign-educated nurses will be more likely to engage leadership succession planning than those facilities that did not hire foreign-educated nurses.

TABLE11. The FORNRSA and ELEADS Crosstabulation Test

Crosstabulation			Leadership 0.00	Leadership 1.00	Total
Leadership	0.00	Count	924	2,269	3,193
		Expected Count	874.7	2,318.30	3,193
		% within foreign	28.9%	71.1%	100.0%
		% within race	84.2%	78.0%	79.7%
	1.00	Count	54	129	183
		Expected Count	50.1	132.9	183
		% within foreign	29.5%	70.5%	100.0%
		% within race	4.9%	4.4%	4.6%
	2.00	Count	43	199	242
		Expected Count	66.3	175.7	242
		% within foreign	17.8%	82.2%	100.0%
		% within race	3.9%	6.8%	6.0%
	3.00	Count	77	313	390
		Expected Count	106.8	283.2	390
		% within foreign	19.7%	80.3%	100.0%
		% within race	7.0%	10.8%	9.7%
	Total	Count	1098	2,910	4,008
		Expected Count	1098	2,910	4,008
		% within foreign	27.4%	72.6%	100.0%
		% within race	100.0%	100.0%	100.0%

TABLE 12. The FORNRSA and ELEADS Chi-Square Test

Chi-Square	Value	*df*	Asymp. Sig. (2-sided)
Pearson Chi-Square	26.988[a]	3	0.000
Likelihood Ratio	28.786	3	0.000
Linear-by-Linear Association	23.019	1	0.000
N of Valid Cases	4008		

Hypothesis 6: Health care facilities that hire more foreign-educated nurses will be more likely to provide career development resources than those facilities that did not hire foreign-educated nurses.

In Table 13, around 78.6% of all hospitals which provided career development resources to administrators did not hire more foreign-educated nurses to help fill RN vacancies in 2008 comparative to 2007. On the other hand, nearly 84.4% of all hospitals which did not provide career development resources to administrators did not hire more foreign-educated nurses to help fill RN vacancies in 2008 comparative to 2007.

The Chi-square test demonstrated the association between foreign-educated nurses and career development. T he Pearson Chi square value was 13.582 and $P = 0.004$ and was statistically significant. Healthcare facilities that hire more foreign-educated nurses will be more likely to provide career development resources than those facilities that did not hire foreign-educated nurses.

TABLE 13. The FORNRSA and DEVADM Crosstabulation Test

Crosstabulation			Career 0.00	Career 1.00	Total
Career	0.00	Count	601	2,579	3,180
		Expected Count	566.7	2,613.30	3,180
		% within foreign	18.9%	81.1%	100.0%
		% within race	84.4%	78.6%	79.6%
	1.00	Count	30	154	184
		Expected Count	32.8	151.2	184
		% within foreign	16.3%	83.7%	100.0%
		% within race	4.2%	4.7%	4.6%
	2.00	Count	30	213	243
		Expected Count	43.3	199.7	243
		% within foreign	12.3%	87.7%	100.0%
		% within race	4.2%	6.5%	6.1%
	3.00	Count	51	337	388
		Expected Count	69.2	318.8	388
		% within foreign	13.1%	86.9%	100.0%
		% within race	7.2%	10.3%	9.7%
	Total	Count	712	3,283	3,995
		Expected Count	712	3,283	3,995
		% within foreign	17.8%	82.2%	100.0%
		% within race	100.0%	100.0%	100.0%

TABLE 14. The FORNRSA and DEVADM Chi-Square Tests

Chi-Square	Value	*df*	Asymp. Sig. (2-sided)
Pearson Chi-Square	13.582[a]	3	0.004
Likelihood Ratio	14.492	3	0.002
Linear-by-Linear Association	12.613	1	0.000
N of Valid Cases	3995		

Lastly, all findings showed significant associations between the dependent variable and each of the independent variables. The results of the data analysis showed that obtaining race and ethnicity information from patients, obtaining language information from patients, having a leadership development program, having a diversity strategy or plan, having leadership succession planning and having career development resources for administrators were significantly associated with whether facilities which hire foreign-educated nurses (including contract or agency nurses) would increase their hiring to fill RN vacancies or hire more foreign-educated nurses in 2008 compared to 2007.

CHAPTER 4

DISCUSSION

The Goal of Study

The goal of this study was to determine whether facilities which hire foreign-educated nurses (including contract or agency nurses) would increase hiring to fill RN vacancies or hire more foreign-educated nurses in 2008 comparative to 2007. Research has indicated the large role that foreign-educated nurses will play in the healthcare workplace in the future. First of all, many hospitals and healthcare workplaces need nurses who can speak at least one language other than English because of the number of non-English speaking patients. Secondly, nurses are still in demand in the system not only at the present time but also in the future. The nursing schools cannot provide enough graduated nurses to the healthcare system so importing foreign-educated nurses has increasingly occurred, especially in urban areas. Thirdly, foreign-educated nurses have more enthusiasm for their jobs. In urban areas, many facilities hire foreign-educated nurses because they work harder. Also, they are willing to receive lower wages than native nurses. Lastly, foreign-educated nurses provide the same standard of care because all of them must qualify like native nurses, such as receiving passing scores on exams.

In this study, I focused on whether health care facilities that hire more foreign educated nurses would be more likely to collect language information than those facilities

that did not hire foreign-educated nurses. I chose race and ethnicity information, language information, leadership development program, diversity strategy or plan, leadership succession planning, and career development resources to administrators as independent variables. Also, whether healthcare facilities that hire more foreign-educated nurse was the dependent variable in the statistical analysis.

After I analyzed the data, I found that there was an association between two variables in the hypothesis and supported the study that whether facilities which hire foreign-educated nurses (including contract or agency nurses) would increase hiring to fill RN vacancies or hire more foreign-educated nurses in 2008 comparative to 2007. However, the number of hospitals reporting that they "did not hire foreign-educated nurses" was a large number. Therefore, foreign-educated nurses as a whole are still a small phenomenon in these facilities or they do not have a role in hiring to fill vacant RN positions. Although all independent variables showed significant relationships on hiring foreign-educated nurses (including contract or agency nurses) to fill RN vacancies or hire more foreign-educated nurses, foreign-educated nurse as a whole are still a small proportion of the nurses in these facilities. Though I prepared this study carefully, the study still has limitations.

Limit of the Study

First of all, data and information are not complete. The number of foreign-educated nurses is not a stable number because they usually have a short contract that is around 2-5 years. Therefore, when AHA sends the survey, respondents might have a misunderstanding because foreign- educated nurses are in and out of the organization. Therefore, it is hard to count the amount of foreign-educated nurses if the study includes

both foreign-educated nurses who are under agency contract. Therefore, the next version of the AHA survey should divide questions about the nursing staff, and foreign-education nurses in particular, into many groups such as foreign-educated nurses hired through agencies or contracts, and independent foreign-educated nurses hired individually. Furthermore, in the study, independent variables are binary with a simple response pattern. It is very hard to capture nuanced data and information when using Yes or No questions. Respondents could answer more than Yes or No or be provided with multiple choices. Also, sample size is pretty small. Therefore, the study should have the bigger sample size which covers all the United States.

Future Research and Recommendation

Future research would include primary data correction. AHA Annual Survey does a secondary data by sending the survey to hospitals. It saves time and cost. However, the sample does not represent the whole population because AHA Annual Survey was not sent to all hospitals in the United States. Moreover, the data cover only 1 year and is not comprehensive. In my perspective, the data should have more than one year. It helps me see the overall trend of foreign-educated nurses from the past to the future. Also, primary data collection should be considered to AHA survey although it spends lots of money. However, we may receive more valuable data and information in the future. Also, the survey should focus on more quantitative method. All of them improve quality of research in the future. Moreover, the future study should ask more deeply question. Such as which countries are the majority of foreign-educated nurses in the United States and why facilities did not hire more foreign-educated nurses.

Another recommendation is that the study should correct Licensed Vocational Nurses' information as well. It will be benefit for all of us in the future.

In summary, the study proved that is whether facilities which hire foreign-educated nurses (including contract or agency nurses) would increase to fill RN vacancies or hire more foreign-educated nurses in 2008 comparative to 2007. Therefore, they have six hypotheses. As a result, there was statistically significant. This finding supported this study. However, there was a limit of the study because data and information are not enough to forecast the trend in the future. It would be of more benefit if the new study can collect primary data and information for many years. It helps the study forecast the trend in the future.

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