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Acculturation, Perceived Discrimination and Depression among Korean Nurses in the United States

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Abstract

This study sought to investigate the process of acculturation, perceived discrimination, and depression of Korean nurses, with the aim of presenting preliminary data for the development of clinical practice adaptation programs that will help these nurses to better acculturate, thereby promoting their mental health. Data were collected from 137 nurses through self-report questionnaire (either paper or online) from June to September 2012. Of the four types of acculturation, assimilation significantly differed by total nursing career length and the length of nursing career in the United States. Separation also differed by perceived health status. Depression significantly differed by total nursing career length, type of employment setting, and perceived health status. Depression was negatively correlated with assimilation and integration, and positively correlated with separation and perceived discrimination. Perceived discrimination was negatively correlated with integration, and positively correlated with marginalization. The factors that significantly influenced depression were marginalization, perceived health status, and assimilation, which together explained 21.1% of the total variance. To facilitate acculturation and decrease depression among Korean nurses, it will be necessary to provide Korean nurses with supportive programs and resources and to manage their depression. Such programs should be tailored to the acculturation style and levels of depression of the participants.

Keywords: Acculturation, Depression, Discrimination, Nurse

1. Introduction

Globalization of the nursing workforce has increased the exchange of human resources. Whenever any two cultures interact in nursing practice, acculturation becomes a social issue[1]. Most immigrants undergo significant alterations in many aspects of their lives through the process of "acculturation." This term is used broadly to include the way in which language, lifestyle, cultural identity, and attitudes are preserved or changed by the experience of coming into contact with another culture[2]. If an individual transitions from their native society into another culture, various challenges occur at the group level (such as ecological, social, cultural, and institutional changes), as well as at the individual level[3]. The acculturation process at the individual level can increase stress as a result of factors such as learning a new language, missing friends and relatives, adapting to new financial and vocational experiences, changing duties for oneself and one's family members, and adjusting to new social norms[4]. The resulting acculturative stress may induce psychological health problems, such as depression and anxiety[5].

The acculturative strategy of an immigrant can be an important resource for overcoming stress, which can affect one's mental health negatively or positively[6]. In general, acculturation has been categorized into four types or strategies: integration, assimilation, separation, and marginalization[7]. Both integration (maintaining interest in both cultural identities) and assimilation (adopting the mainstream cultural identity) have been shown to relieve immigrants' stress and improve psychological well-being[8].

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As part of the minority group, foreigners or immigrants often experience discrimination or prejudice from other people, such as being insulted, ridiculed, or treated rudely or unfairly[9-12]. Ethnic discrimination has been regarded as a significant life stressor and has negative outcomes on the adjustment, well-being, and health of racial and ethnic minorities; furthermore, these effects can accumulate over time. It may also result in extreme reactions such as suicide[11]. Researchers have found that it is associated with psychological health problems such as depression and anxiety, which can inhibit immigrants from successfully entering a new culture[4,11,12]. According to previous studies, immigrants who successfully acculturate have lower levels of stress, but those who are less acculturated experience psychological problems such as marginalization, isolation, and identity confusion[5,13]. For example, Korean-American students who experienced ethnic discrimination showed more depression and less social connectedness. Immigrants' acculturation, perceived discrimination, and mental health are thought to be interrelated concepts and so it is necessary to conduct research that encourages acculturation into other cultures and promotes mental health in order to help improve the well-being of those already overseas. In 2008, there were about 160,000 Internationally Educated Nurses (IENs) living in the U.S., comprising of 5.4% of all licensed registered nurses. Of these, 3,800 were Korean, making Korea the fifth largest supplier of IENs to the U.S[14]. Given the prominence of Korean IENs, a study on the acculturation and mental health of Korean nurses should be conducted in order to promote more successful acculturation in Korean nurses, which may facilitate more frequent international labor exchange.

Research on Korean nurses working in the U.S. has previously focused on overcoming language barriers[15], overseas employment and clinical competence[16], nursing competence[17], and the history of the Korean American Nurses Society[18]. However, there has been almost no research conducted into the amount of discrimination faced by Korean nurses or the mental health of these IENs, even though overseas employment of Korean nurses has taken place since 1964.

The aim of this study was to investigate acculturation, perceived discrimination, and depression in Korean nurses in the U.S., and to identify the factors contributing to depression in this population. The specific objectives were as follows: 1. to investigate the levels of acculturation, perceived discrimination, and depression among Korean nurses in the U.S.; 2. to determine the differences in acculturation, perceived discrimination and depression by nurses' demographic characteristics; and 3. to determine the relationships between demographic characteristics, acculturation, perceived discrimination, and depression among Korean nurses in the U.S.

2. Methods

2.1 Design

A descriptive research design was used to measure acculturation, perceived discrimination, and depression, and to identify factors contributing to depression among Korean nurses in the U.S.

2.2 Sampling and Procedure

The subjects of this study were 137 Korean nurses working in the U.S. that had completed primary nursing education, often in British- or U.S.-modeled nursing education programs, outside of the U.S. or in the U.S. territories[14]. In addition, all had passed the National Council Licensure Examination for Registered Nurses (NCLEX-RN) after completing a nursing education program in Korea, were currently working in the U.S. RN workforce, and agreed to participate in this study.

Using G*Power 3.1.7 software (Heinrich-Heine-Universitat Dusseldorf, Dusseldorf, North Rhine-Westphalia, Germany), power analysis revealed a .80 score for multiple regression analysis, with a medium effect size of .15 for nine independent variables, and a significance level of .05. The sample size of $N = 137$ was satisfactory for identifying factors affecting depression among Korean nurses[19].

Data were collected by self-administered questionnaires from June 1 to September 16, 2012, posted on the New York Korean American Nurses Association (NYKNA) homepage. The researcher also collected data from nurses who were studying on the Registered Nurse-Bachelor of Science degree in Nursing (RN-BSN) program and were participating in the annual free health exam for Koreans in New York. This convenience sample resulted in a participant base of 170 Korean nurses recruited in New York and New Jersey. A total of 137 questionnaires (80.5%) were returned for final data analysis.

The researcher checked the meaning of each item in the questionnaire through focus group interviews with four Korean nurses (three hospital nurses and one

nursing home nurse) with more than five years of clinical experience in the U.S. Two nursing professors reviewed the meaning of each questionnaire item and revised vague or duplicated questions.

2.3 Measurements

2.3.1 Acculturation

Acculturation was assessed using the East Asian Acculturation Measure (EAAM), which was developed by Barry[20] and modified by Kim[6]. In his later work, Berry[7] identified four types of acculturation: Integration (interest in maintaining both cultural identities), assimilation (interest only in maintaining the mainstream cultural identity), separation (interest only in maintaining the ethnic cultural identity), and marginalization (little interest in maintaining either cultural identity). The original scale consisted of 28 items; however, in this study, the acculturation scale was modified following a validity test to include only 25 items. Responses to the items were recorded on a 5-point Likert scale (ranging from "strongly agree" to "strongly disagree"). A higher score indicated a higher level of each acculturation type. In Kim's study [6], the Cronbach's α coefficients for the acculturation types ranged from .84 to .93; in this study, the coefficients were .72 for assimilation, .72 for integration, .77 for separation, and .84 for marginalization.

2.3.2 Perceived Discrimination

Perceived discrimination was assessed using the scale developed by Williams et al.[21] and modified by Kim[1]. It was developed to measure the frequency of exposure to chronic discrimination, such as being dealt with less courtesy and respect or receiving poorer service than others in public facilities. It consists of 10 items with a 5-point Likert scale (ranging from "almost every day" to "never"). The Cronbach's α coefficient was reported as .99 in Kim's study[1], and was .85 in this study.

2.3.3 Depression

Depression was assessed using the Short Form Geriatric Depression Scale (SGDS), modified by Cho, Bae, & Suh[22] from the original by Sheikh and Yesavage[23]. Of the 15 items, 10 indicated the presence of depression when answered positively, while the rest indicated depression when answered negatively. Scores of 0–4 are considered normal, 5–8 indicate mild depression, 9–11 indicate moderate depression, and 12–15 indicate severe depression[23]. The Cronbach's α coefficient was reported as .91 in Cho, Bae, and Suh's study[22], and was .74 in this study. The SGDS was found to have a 92% sensitivity and a 89% specificity when evaluated against diagnostic criteria[23].

2.4 Data Analysis

Data analysis was performed using SPSS for Windows (version 20.0, IBM Corp., Armonk, NY, USA). Descriptive statistics were used to summarize the general demographics. *t*-tests and analysis of variance (including Scheffé's test for post hoc analysis) were used to compare the differences in acculturation, perceived discrimination, and depression by demographic characteristics. Pearson's correlation coefficient was used to determine the relationships between variables.

Stepwise multiple regression analysis was performed to explore which factors predicted depression in participants. A $p<.05$ was considered statistically significant. Multicollinearity, residuals, and outlying values were examined in order to test the regression analysis hypotheses regarding variable independence. First, correlation coefficients between variables ranged from .016 to .629. Thus, no explanatory variable with a correlation coefficient higher than .80 was found. Predictors were confirmed to be independent from one another. There was no autocorrelation problem, as the Durbin-Watson statistic was 1.894. In addition, the variance inflation factor ranged from 1.000 to 1.313 (≤10), implying no issues with multicollinearity. The results of testing the hypotheses on the residuals satisfied the hypotheses of multicollinearity, residual normality, and homoscedasticity. Cook's distance for examining outlying values did not exceed 1.0. Accordingly, all hypotheses of the regression equation were satisfied. The results of the regression analysis were considered reliable.

2.5 Ethical Considerations

The researcher obtained written permission from all the Korean nurses who agreed to participate in this study. They were assured that their names and other identifying data would be kept confidential and were informed of their rights to withdraw from the study at any time and to refuse to answer any questions. After completing the questionnaire, the researcher provided each participant with a gift card as a reward.

3. Results

3.1 Demographic Characteristics of the Sample

Women made up 98.5% of the sample and men 1.5%. The participants' mean age was 43.8 years. Of the total sample, 99 nurses (72.3%) were married. The levels of education included associate degrees (65.7%), bachelor's degrees (24.8%), and graduate degrees (9.5%). More than half (53.3%) reported their religion as "Protestant." The mean duration of the subjects' total nursing career and time working in the U.S. was 14.9 and 6.6 years respectively. The majority (75.9%) worked in acute care hospitals. Most subjects perceived their health to be good (73.0%), with 23.4% perceiving their health to be moderate and 3.6% perceiving their health to be poor.

3.2 Scores on Acculturation, Perceived Discrimination and Depression Scales

The mean scores for acculturation, perceived discrimination, and depression are shown in Table 1. The mean scores for acculturation types were 8.67 (*SD* = 2.62) for assimilation, 12.63 (*SD* = 2.62) for integration, 12.11 (*SD* = 3.43) for separation, and 19.93 (*SD* = 3.25) for marginalization. The mean scores for perceived discrimination and depression were 17.67 (*SD* = 4.69) and 3.91 (*SD* = 2.88), respectively. Receiving a score of less than five on SGDS indicated that the participant was not depressed; receiving any score above five indicated that the participant was depressed. There were significant differences between the two groups in terms of assimilation ($t = 2.851$, $p = .005$), integration ($t = 2.648$, $p = .009$), marginalization ($t = -3.887$, $p < .001$), and perceived discrimination ($t = -2.888$, $p = .005$).

3.3 Differences in Acculturation, Perceived Discrimination and Depression by Demographic Characteristics

Of the four types of acculturation, assimilation significantly differed by total nursing career length ($F = 3.378$, $p = .020$) and length of nursing career in the U.S. ($F = 7.273$, $p < .001$) (Table 2(a)). Scheffé's test revealed that those with more than 20 years of total nursing experience had significantly higher scores than did those with 10 to 14 years of experience. Those with more than 10 years of nursing experience in the U.S. had higher scores than did those with five to nine years of experience or those with below five years of experience. Separation scores also differed by perceived health status ($F = 4.075$, $p = .019$); those that reported "good" health showed a higher score than did those that rated themselves as moderately healthy. However, there were no significant differences in integration, marginalization, and perceived discrimination.

Depression significantly differed by total length of nursing career ($F = 3.412$, $p = .019$), type of employment setting ($F = 4.745$, $p = .010$), and perceived health status ($F = 3.362$, $p = .038$). Scheffé's test revealed that those with 15 to 19 total years of nursing experience had higher scores than did those with less than 10 years of experience, and those working in nursing homes had higher scores than did those working in other health care institutions. However, there were no significant differences by perceived health status (Table 2(b)).

Table 1. Acculturation and perceived discrimination according to depression (*N*=137)

Variables	Mean (*SD*)	Range	Depression		*t*	*p*
			<5(*n*=90)	≥5(*n*=47)		
			Mean (*SD*)	Mean (*SD*)		
Assimilation	8.67 (2.62)	4-15	9.12 (2.61)	7.80 (2.45)	2.851	.005
Integration	12.63 (2.62)	7-20	13.05 (2.64)	11.82 (2.42)	2.648	.009
Separation	12.11 (3.43)	5-21	17.73 (3.15)	18.17 (3.93)	-.659	.512
Marginalization	19.93 (3.25)	13-25	9.32 (3.10)	11.48 (3.09)	-3.887	<.001
Perceived discrimination	17.67 (4.69)	10-33	16.85 (4.63)	19.23 (4.45)	-2.888	.005
Depression	3.91 (2.88)	0-13	2.14 (1.18)	7.29 (2.02)	16.097	<.001

Table 2. **(a)** Differences in Acculturation, Perceived Discrimination, and Depression by Demographic Characteristics (*N*=137)

Characteristics	Categories	Assimilation			Integration			Separation		
		Mean (*SD*)	*t* or *F* (*p*)	Scheffé	Mean (*SD*)	*t* or *F* (*p*)	Scheffé	Mean (*SD*)	*t* or *F* (*p*)	Scheffé
Gender	Female	8.67 (2.58)	.039 (.975)		12.59 (2.60)	-1.561 (.121)		17.91 (3.43)	.945 (.512)	
	Male	8.50 (6.36)			15.50 (3.53)			16.00 (2.82)		
Age (year)	⟨40	8.31 (2.46)	1.035 (.358)		12.49 (2.19)	.168 (.846)		17.86 (2.98)	.420 (.658)	
	40≤ -⟨50	9.09 (2.68)			12.63 (2.78)			18.22 (3.55)		
	≥ 50	8.66 (2.75)			12.80 (2.97)			17.54 (3.82)		
Marital status	Married	8.77 (2.69)	.763 (.447)		12.62 (2.66)	-.063 (.950)		17.92 (3.60)	.253 (.801)	
	Other	8.39 (2.45)			12.65 (2.56)			17.76 (2.95)		
Education level	Associate	8.60 (2.62)	.144 (.866)		12.63 (2.64)	.083 (.921)		17.54 (3.52)	1.456 (.237)	
	Bachelor	8.88 (2.72)			12.73 (2.75)			18.35 (3.44)		
	Graduate	8.61 (2.53)			12.38 (2.32)			19.00 (2.38)		
Religion	None	8.26 (3.01)	.542 (.654)		12.33 (1.98)	.291 (.832)		17.53 (3.04)	.863 (.462)	
	Protestant	8.68 (2.67)			12.54 (2.46)			18.13 (3.46)		
	Catholic	8.52 (2.54)			12.97 (3.23)			18.00 (3.55)		
	Other	9.46 (2.18)			12.53 (2.47)			16.53 (3.30)		
Total nursing career (year)	< 10[a]	9.06 (2.70)	3.378 (.020)	b <d	13.22 (2.31)	1.715 (.167)		17.45 (3.20)	.763 (.517)	
	10≤ - <15[b]	7.82 (2.26)			12.32 (2.51)			18.11 (3.34)		
	15≤ - <20[c]	8.22 (2.19)			12.00 (2.70)			18.47 (3.62)		
	≥ 20[d]	9.58 (2.99)			13.05 (2.81)			17.44 (3.52)		
Nursing career in the U.S. (year)	< 5[a]	8.34 (2.28)	7.273 (.001)	a,b <c	12.37 (2.43)	2.464 (.089)		17.91 (2.97)	.286 (.751)	
	5≤ - <10[b]	8.05 (2.54)			12.36 (2.92)			18.13 (4.10)		
	≥ 10[c]	10.20 (2.94)			13.56 (2.52)			17.50 (3.55)		
Type of employment setting	Acute care hospital	8.66 (2.70)	.409 (.665)		12.52 (2.59)	.628 (.535)		17.89 (3.38)	.437 (.647)	
	Nursing home	8.21 (2.60)			12.57 (2.47)			18.50 (3.50)		
	Other	9.05 (2.24)			13.26 (2.95)			17.36 (3.74)		
Perceived health status	Good[a]	8.47 (2.50)	1.377 (.256)		12.49 (2.45)	1.197 (.305)		18.37 (3.16)	4.075 (.019)	a >b
	Moderate[b]	9.34 (2.68)			13.21 (3.00)			16.43 (3.65)		
	Poor[c]	8.40 (4.27)			11.80 (3.34)			17.40 (5.12)		

Table 2. **(b)** Differences in acculturation, perceived discrimination, and depression by demographic characteristics (*N* = 137)

Characteristics	Categories	Marginalization			Perceived discrimination			Depression		
		Mean (*SD*)	*t* or *F* (*p*)	Scheffé	Mean (*SD*)	*t* or *F* (*p*)	Scheffé	Mean (*SD*)	*t* or *F* (*p*)	Scheffé
Gender	Female	10.11 (3.24)	1.541 (.360)		17.70 (4.72)	.657 (.512)		3.95 (2.88)	1.443 (.151)	
	Male	7.00 (2.82)			15.50 (2.12)			1.00 (1.41)		
Age (year)	⟨40	10.17 (3.35)	.838 (.435)		17.31 (4.70)	.302 (.740)		3.92 (2.99)	0.139 (.870)	
	40≤ -⟨50	10.43 (3.11)			18.06 (5.12)			4.06 (2.90)		
	≥ 50	9.54 (3.29)			17.69 (4.27)			3.73 (2.79)		
Marital status	Married	10.06 (3.31)	-.029 (.977)		17.32 (4.67)	-1.406 (.162)		3.87 (2.94)	-0.219 (.827)	
	Other	10.07 (3.13)			18.57 (4.69)			4.00 (2.77)		

Education level	Associate	10.44 (3.16)	2.013 (.138)		17.84 (4.56)	1.754 (.177)		4.33 (2.94)	2.905 (.058)	
	Bachelor	9.52 (3.41)			18.08 (5.24)			3.17 (2.40)		
	Graduate	8.84 (3.15)			15.38 (3.73)			2.92 (3.20)		
Religion	None	11.46 (2.99)	1.238 (.299)		17.86 (4.10)	.732 (.535)		4.46 (2.97)	0.462 (.710)	
	Protestant	9.82 (3.32)			17.20 (4.73)			3.84 (2.72)		
	Catholic	9.80 (3.21)			18.61 (4.83)			4.05 (3.19)		
	Other	10.53 (3.12)			17.46 (4.87)			3.23 (2.97)		
Total nursing career (year)	< 10[a]	9.87 (2.88)	1.058 (.369)		16.77 (4.75)	.485 (.693)		2.96 (2.62)	3.412 (.019)	a < c
	10≤ - <15[b]	10.08 (3.70)			18.00 (4.57)			4.14 (2.77)		
	15≤ - <20[c]	10.80 (3.23)			17.88 (4.94)			5.00 (3.08)		
	≥ 20[d]	9.47 (3.11)			17.91 (4.61)			3.41 (2.70)		
Nursing career in the U.S. (year)	< 5	10.23 (3.14)	2.106 (.126)		17.21 (4.81)	2.347 (.100)		3.73 (2.98)	2.121 (.124)	
	5≤ - <10	10.57 (3.66)			19.05 (4.95)			4.68 (2.67)		
	≥ 10	9.03 (2.78)			16.96 (3.77)			3.33 (2.80)		
Type of employment setting	Acute care hospital[a]	10.03 (3.28)	.583 (.560)		17.68 (4.67)	.141 (.869)		3.98 (2.85)	4.745 (.010)	b > c
	Nursing home[b]	10.85 (2.98)			18.14 (3.77)			5.42 (3.41)		
	Other[c]	9.63 (3.33)			17.26 (5.57)			2.42 (1.89)		
Perceived health status	Good	10.15 (3.46)	.130 (.878)		17.67 (4.68)	.036 (.965)		3.57 (2.82)	3.362 (.038)	
	Moderate	9.81 (2.27)			17.59 (4.96)			4.62 (2.66)		
	Poor	10.00 (4.63)			18.20 (4.02)			6.20 (4.14)		

3.4 Correlations between Acculturation, Perceived Discrimination and Depression

The correlations between the study variables are shown in Table 3. Depression was negatively correlated with assimilation (r = -.181, p = .034) and integration (r = -.227, p = .008), and positively correlated with separation (r = .370, p < .001) and perceived discrimination (r = .279, p < .001). Perceived discrimination was negatively correlated with integration (r = -.267, p = .002), and positively correlated with marginalization (r = .488,p < .001).

3.5 Factors Influencing Depression

Stepwise multiple regression analysis was performed to identify factors affecting depression among Korean nurses in the U.S. Independent variables included total nursing career length, length of nursing career in the U.S., type of employment setting, and perceived health status, which had showed significant differences among general demographics. It also included the acculturation types and perceived discrimination. Among the general characteristics, type of employment setting and perceived health status were entered as dummy variables.

Table 3. Correlations between acculturation, perceived discrimination, and depression

Variables	Assimilation	Integration	Separation	Marginalization	Perceived discrimination
	r (*p*)	*r* (*p*)	*r* (*p*)	*r* (*p*)	*r* (*p*)
Integration	.629(<.001)				
Separation	-.504(<.001)	.411(<.001)			
Marginalization	.016(.850)	-.241(.005)	.076(.375)		
Perceived discrimination	-.034(.695)	-.267(.002)	.033(.700)	.488(<.001)	
Depression	-.181(.034)	-.227(.008)	.008(.929)	.370(<.001)	.279(<.001)

The prediction model contained three of the nine predictors and was reached in three steps with no variables removed. The model was statistically significant, F (3, 133) = 13.133, p< .001, and accounted for 21.1% of the variance of depression (R^2 = .229, Adjusted R^2 = .211).

Coefficients for the three variables were as follows: marginalization β = .384, p< .001; perceived health status β = .240, p = .002; and assimilation β = -.218, p = .005 (Table 4).

Table 4. Factors influencing depression (N = 137)

	B	β	R^2	AdjR^2	t	p
(Constant)	2.143				2.115	.036
Marginalization	.340	.384	.137	.131	5.035	<.001
Perceived health status	1.553	.240	.182	.170	3.119	.002
Assimilation	-.239	-.218	.229	.211	-2.838	.005
F (3, 133) = 13.133, p < .001						

4. Discussion

This study investigated acculturation, perceived discrimination, and depression among Korean nurses in the U.S. An examination of differences in acculturation according to subjects' depression criteria (≥5) found that the non-depressed group showed higher assimilation, higher integration, and lower marginalization than did the depressed group. The depressed group also reported higher perceived discrimination than did the non-depressed group. This finding is similar to those in previous studies, in which students who were high in assimilation and integration demonstrated better psychological well-being than did those high in separation and marginalization[1]. Perceived discrimination was also shown to affect psychological health and depression[24].

This study founded that 34.3% of the participants were mildly depressed and 7.3% were categorized as severely depressed. This depression prevalence was higher than the 2.9 to 5.6% found among all Koreans[25]. No prior research on depression among Korean nurses working in the U.S. has been conducted, however, the prevalence of depression among Korean immigrants is double that found among the U.S. population[26]. The participants' evident need for mental health care may therefore reflect a broader need among Korean immigrants.

The most common acculturation style among Korean nurses appeared to be marginalization, followed by integration, separation, and assimilation, respectively. Previous studies have reported, however, that immigrants prefer to adopt an integrative acculturation style, followed by assimilation, separation, and marginalization[27]. In this study, the participants showed the highest score in marginalization, suggesting they were in a dysfunctional acculturation state. Some Korean nurses may tend to avoid interacting or learning about their host culture. The integration phase commonly occurs 9 to 12 months after arrival. In the integration phase, IENs recognize that they made the right decision to migrate—it takes a long time before they will develop a sense of belonging to the new culture and, most importantly, an awareness of the skills and knowledge that they bring to the profession[28]. This study's findings suggest a need to provide acculturation education for Korean nurses to successfully adjust to new cultures and clinical practices.

There were significant differences in assimilation by total nursing career length and the length of nursing career in the U.S., and in separation by perceived health status. There were also significant differences in levels of depression by the total length of one's nursing career, type of employment setting, and perceived health status. These results were similar to those from previous studies, which found that Korean nurses working in the U.S. who had more experience are better acculturated and show greater nursing competence [17], and that those who perceived their health as poor were more depressed[29].

In general, nurses perform various types of communication with medical team members as well as clients in their nursing profession. Korean nurses working in a clinical setting in the U.S. actively interact with American culture, and a greater length of nursing time in the U.S. suggests they have improved their acculturation through language competency. Therefore, nursing career length in the U.S. might influence the level of assimilation. In our findings, participants who showed a higher perceived health status had a higher score in separation. However, this was inconsistent with the indication that better psychological well-being corresponded with higher scores in integration and assimilation[30]. Further research should be conducted in order to determine how health status is related to acculturation style among Korean nurses. Our finding that total nursing career length was negatively associated with depression differed from that of previous studies[31]. It will therefore be necessary to conduct

additional research on how depression relates to duration of clinical practice by exploring which factors influence changes in depression among Korean nurses.

In this study, higher scores in assimilation and integration corresponded with lower depression, and higher scores in marginalization corresponded with increased depression. Higher integration scores also appeared to be related to less perceived discrimination, and higher levels of marginalization were related to greater depression. These findings reflect those of previous studies in which subjects showing more assimilation and integration were found to demonstrate higher psychological well-being and lower acculturative stress, while those with higher levels of separation had higher stress[32]. Perceived discrimination was also related to depression and acculturative stress[26,33]. Other studies uncovered the existence of distressing work situations in which colleagues purposefully misunderstood foreign workers, undermined professional skills, refused to help, and sometimes bullied the IENs[34]. Such experiences often increase feelings of isolation, powerlessness, and lack of confidence, and decrease IENs' motivation to interact with others, thereby contributing to maladaptation to clinical practice[35]. It may be difficult to integrate into a new culture because most participants sought overseas employment after receiving nursing education in their home country. Most Korean nurses experience difficulties in becoming proficient in the language, or in sufficiently understanding the requirements of the society to achieve full incorporation. However, it has been reported that immigrants' mental health is better when they adopt an integrative acculturation style—that is, when they maintain their Korean cultural activities as well as participate in local social activities in the U.S[36]. Therefore, Korean nurses need to be encouraged to work with host members so that they can quickly learn English as well as become more familiar with U.S. culture. Coworkers need to assist Korean nurses in learning the customs and behaviors of the host country.

When working in the U.S., Asian nurses must adjust to Western culture, which is notably different from Eastern culture, and often carry a heavy burden when dealing with language barriers and ethnic discrimination. In general, many Asian nurses find their American colleagues to be much less sympathetic because American nurses tend to comply the rules more strictly due to fear of litigation[37]. The differences in clinical practices between the cultures can damage the morale of IENs, who may have been very competent nurses in their native countries, yet are regarded as more novice nurses when facing the subtle differences in the ethnic environment of a new culture. Thus, it is essentialfor nurses and administrators to be perceptive of the many differences between the health care systems of the two cultures, and to understand how these differences can directly affect the environment and workplace for IENs and their peers. Adequate mentoring and orientation programs for Korean nurses should be continually offered through host hospitals or the Korean Nurse Association.

This study found that the factors influencing depression among Korean nurses were marginalization, perceived health status, and assimilation, which together explained 21.1% of the total variance. The results reflected those of previous research, showing that marginalization and acculturative stress influenced immigrants' depression [6], and that immigrants who are not well adapted to the culture of their host society often have low self-esteem and poor physical and mental health[38]. It is crucial to maintain the systemic organization of the immigrant society and to provide information to Korean nurses to prevent depression. Information and support on adaptation strategies for overseas employment should be provided. An adaptation program that addresses cultural competencies and clinical practice, including information on new health care systems, might serve as a method of coping, thereby increasing mental health and facilitating the acculturation of Korean nurses. However, this study differed from other previous studies that indicated that the variables influencing depression were monthly income and educational level[39]. Future research clarifying the role of these factors is necessary.

This study had several limitations. First, the generalizability of our results is limited to female nurses due to the limited number of male nurses in our study. A convenience sample working in two areas may not have been an adequate representation of the target population as a whole. A survey of Korean nurses across the U.S. and in other countries would be beneficial in order to be able to generalize the results of this study to a wider area. Additionally, this study did not include all the relevant variables of depression, such as history of depression, comorbid somatic disorders, or close social contacts. Nonetheless, by examining the relationship between acculturation, perceived discrimination, and depression in Korean nurses, this study has provided preliminary data that may be used to encourage acculturation and improve mental health among Korean nurses in the U.S. The nursing implications for this study include the development of

supportive intervention programs or resources based on acculturation style to facilitate acculturation and decrease depression among Korean nurses.

5. Conclusion

This study attempted to investigate the level of Korean nurses' depression and related factors. Marginalization, integration, and perceived health status were identified as factors predicting depression. To improve acculturation and decrease depression among Korean nurses working in the U.S., it will be necessary to provide Korean nurses with supportive programs and resources to facilitate their acculturation and to manage their depression. Such programs should be tailored to the acculturation style and the level of depression of the participants.

This study focused solely on Korean nurses working in the U.S. Therefore, it will be necessary to perform future research investigating acculturation in Korean nurses who are preparing for overseas employment while still in Korea, or who are waiting to secure employment in the U.S., as there may be differences in the acculturation style resulting from the immediate cultural context. The relationship between acculturation and mental health among Korean nurses working in countries other than the U.S., such as Canada, Australia, and New Zealand, should also be investigated.

6. References

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