Relationship Between Nursing Students' Learning Styles, Empathy, and Cultural Competence : Is It Learned Or Naturally Formed?

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Article Info	Abstract
	Purpose: This study investigated the associations between learning type, empathy, and cultural competency of nursing students at C University in Korea. Methods: In total, 170 participants responded to a paper survey. Data analysis included t-test, analysis of variance, and stepwise multiple linear regressions. Results: The participants reported moderate levels of empathy (3.77 ± 0.38) and cultural competency (3.28±0.41), and the learning style of most of the participants was that of an assimilator. Cultural competency was positively correlated with empathy (r =.33, p<.01). However, no relationship was found between learning style and cultural competency. Empathy, media contact experience, and foreign language fluency were significant predictors of and explained 20.8% of the variance in cultural competency. Conclusions: Results showed a positive correlation between exposure to culturally diverse experiences (e.g., media contact, foreign language fluency) and cultural competency. Further study is necessary to explore the factors that influence cultural competency.

Introduction

South Korea is increasingly a multi-cultural society. According to the Immigration Service Statistics in 2019, the number of foreign residents living in Korea was 2,524.656, representing 4.87% of the entire population, which increased by 1.18% and 0.3% compared to that in 2015 and 2018, respectively. By nationality, China comprised 43.6% of foreign residents, followed by Vietnam (8.9%), Taiwan (8.3%), USA (6.2%), Japan (3.4%), and Uzbekistan (3.0%%) (Ministry of Justice, 2019). In addition, marriage migrants, migrant workers, and refugees by legal or illegal means are continuously increasing in numbers (Hwang, 2020). Since 1990, initial adjustment support or international marriage guidance programs have been conducted in accordance with this trend (Ministry of Justice, 2019). Concordantly, interest in multiculturalism is increasing and has become a major social issue (Han, 2016).

There is a need to provide nursing services that are responsive to the needs of Korean multicultural demographics. As many as 400,000 foreign patients had received medical services in 2019 in Korea, which is up from 364,189 in 2016 (Ministry of Welfare, 2017). Nurses, who oversee the delivery of culturally sensitive care as the first line of healthcare, need to be equipped with skills that can accommodate the cultural values and beliefs of culturally diverse patients (Park et al., 2019) in delivery of quality nursing care.

Campinha-Bacote (2002) suggested that healthcare professionals need to provide effective and culturally responsive care to patients with different cultural backgrounds, free of prejudice or discrimination. The skill needed to provide this type of care can be called cultural competency, and includes the skills needed to deliver care at the individual, family and community levels and to engage within the cultural contexts of healthcare and wellbeing

In Korea, several studies have investigated factors influencing the cultural competency of nurses (Chae, Park, Kang & Lee, 2012; Kim & Choi, 2018; Park, 2011). These studies reported that cultural competency was affected by empathy and cultural education (Suk, Oh &Im, 2018) and positively correlated with foreign patients' satisfaction with the care the nurses provided (Kim et al., 2017). There is evidence that the cultural competency of the nurse positively affects the care. However, the source(s) of nurses' cultural competency is not well established.

Regarding the cultural competency of nursing students, Han (2014) identified it as their ability of acting and communicating skillfully with subjects from different cultural areas with a basis of understanding their beliefs, values, behaviors, and conventions. The author developed a tool that measures the effectiveness of a curriculum in teaching cultural competency to nursing students: The tool included five areas of cultural competency; cultural cognition, cultural knowledge, cultural sensitiveness, cultural skill, and cultural experience Han (2014) found that there was variability in cultural competence among students with cultural cognition as the highest competency, and cultural knowledge being the lowest.

Since the late 1990s, there have been multiple studies exploring the relationships between cultural competency and other possible correlates. Empathy has been well known to be one of the most frequently

correlated variables in the literature, and was considered as an essential predisposing factor for developing cultural competency among nursing students (Choi & Lee, 2019; Kim, 2015). Similar research findings have been reported from several studies targeting Korean nursing students (Bae, 2015; Han 2014; Kim, 2015; Kim, 2020). However, some studies reported conflicting findings (Cho & Jang, 2015). Additionally, other correlates of nursing students' cultural competency have been reported, such as emotional intelligence (Kim, 2015), self-efficacy and confidence in transcultural nursing (Cho & Jang, 2015), having foreign language fluency and a foreign friend (Bae, 2015), and multi-cultural experiences and self-reflection (Pak, 2016).

Several quasi-experimental studies have been conducted to examine the effects of multicultural nursing education programs on cultural competency, empathy, and self-reflection of nursing students (Peek & Park, 2013; Ra, 2017). Chae et al. (2015) examined the effects of a 13-week multicultural course on nursing students' acceptance of other cultures and cultural competency. Students in the experimental group showed higher levels of acceptance of other cultures and cultural competency than control group members. Results suggest that educational programs designed to increase students' cultural competence can be effective.

Kolb (1985) proposed four learning styles for students or professionals, based on specific learning methods that learners use to process information and problems for effective learning: converger, diverger, assimilator, and accommodator. Converger is between abstract conceptualization and active experimentation, diverger is between concrete experience and reflective observation, assimilator is between abstract conceptualization and reflective observation, and accommodator is between concrete experience and active experimentation

He suggested that, in general, learners tend to be stronger in one or two of the four learning styles. In addition, the author claimed that a relationship exists between professional role and learning styles. In a similar context, the author believed that nurses and counselors are primarily diverger-style learners. So far, very few studies have examined the learning style of nursing students in Korea. A couple of studies have verified that nursing student's learning styles are related to their clinical competency (Hong, 2009) or simulation education (Kim & Park, 2013). There is a need to identify factors (such as students' personal learning types or experiences) that affect cultural competence among Korean nursing students. The purpose of this study was to examine the culture-related experiences of Korean nursing students and to identify factors influencing their perceived level of cultural competency. We hypothesize that the ability of nursing students to accept and care for clients from different cultures may be related to their personal learning style.

Method
Study Design and Sample
A cross-sectional survey design was used with a convenience sample of 170 nursing students at C University located in a rural area of South Korea. The eligibility criteria included students who were second- or third-year students. Students having experiences of residing in foreign countries were excluded. The study protocol was reviewed and approved by the Institutional Review Board of C University. Four student delegates were recruited to assist in distribution and collection of surveys. Printed questionnaires were distributed to students who agreed to participate after providing informed consent. The subjects participated by completing a paper survey. Privacy was maintained by avoiding collection of participants' names, address, and any private information; and confidentiality was maintained by use of participant codes. After completing the survey, participants received a small gift (a portable measuring tape). Data were collected over two months from March to April 2018.

Measures
Questionnaires included measures of demographics, culture-related experiences, learning style, empathy, and cultural competency. A total of 80 items were included survey

Demographic variables. Demographic variables measured included gender, age, level in nursing education program, religion, and GPA.

Outcome variable
Cultural competency. The cultural competency of nursing students was measured using Han's tool (2014). The tool consists of 5 sub-constructs and 27 items: cultural knowledge (9 items), cultural skill (6 items), cultural encounters (4 items), cultural awareness (4 items), and cultural sensitivity (4 items). Responses were rated on a 5-point Likert-type scale from 1 (strongly disagree) to 5 (strongly agree). Higher scores indicated an increased level of cultural competency. Reliability, content and concurrent validity of this measurement were assured in Han's (2014) methodological study (n=526), and the tool has been used successfully in several studies (Han, 2016; Kim 2015; Yang & Song, 2018). Cronbach's alpha coefficients for both the original (Han,

2014) and subsequent (Han, 2020) study were .91 overall and ranged from .76 ~ .91 per subscale. In this study, Cronbach's alpha coefficient was .87.

Independent Variables

　　Empathy. The empathy of nursing students was measured using the Interpersonal Reaction Index (IRI), which was developed by Davis (1983) and modified by Jeon (2003). This instrument consists of subscales that include cognitive empathy (15 items) and emotional empathy (15 items). Of the 30 items in total, 24 items are about thoughts or feelings from others' perspectives, whereas the other 6 items represented self-centered thoughts and consequently were reversely coded for analysis. All items were measured by a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). A higher score indicated that a student has a high level of empathy in terms of cognitive and emotional reactions. Cronbach's alpha was .86 (Jeon, 2003), .80 (Peek & Park, 2013), and .84 in this study.

　　Learning style. The Learning Style Inventory (LSI) examines specific learning methods that learners use to process information and problems for effective learning (Kolb, 1985) (Fig. 1). This tool first divides learning methods into two axes (sense-thought and observation-experiment), and then separates into four learning styles after relating each axis according to the frequency of use. The learning styles are as follows: converger (located between abstract conceptualization and active experiment), diverger (located between concrete experience and reflective observation), assimilator (located between abstract conceptualization and reflective observation), and accommodator (located between concrete experience and active experiment). Learning style was measured using Kolb's instrument (1985), which was modified by Jeon (2002). This tool consists of 12 items with 4 sentences describing a learning style for each item. Respondents were asked to rate 1 for a sentence that least fits and 4 for a sentence that best fits their learning style. Cronbach's alphas for the four learning styles were from .61~.86 in another study (Kim & Park, 2013) and .63 ~ .88 in the original study.
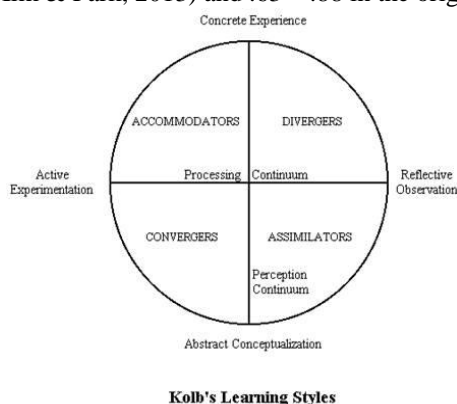

Kolb's Learning Styles

Fig 1. Kolb's Learning Styles

Statistical analysis

The data were analyzed with SPSS/WIN (21.0 version). P-values of $< .05$ were considered to be statistically significant. Descriptive statistics were used to describe the general characteristics of participants and the levels of measured variables. T-tests and analysis of variance were done to compare the dependent variable according to the general characteristics. The associations among the two measured variables were estimated with Pearson correlations. The normality of each variable and the summated mean scale of the measurements were assessed by normal plots and Kolmogorov-Smirnov test. Stepwise multiple linear regressions (backward elimination method) were used to identify factors associated with the cultural competency of nursing students. Multicollinearity for the regressions analysis was confirmed by reviewing the values of the variance inflation factor (VIF-1/tolerance) (tolerance ≥ 0.1 and VIF ≤ 10 for all). No problems regarding normality and multicollinearity were found.

Results

　　A total of 175 participants completed the questionnaire, for a response rate of 94.1%. Of the responses, five were excluded because they included inappropriate answers, leaving a total of 170 completed surveys for use in analysis. According to the G*Power 3.1 program, this number was deemed appropriate for stepwise multiple regressions (power = 80%, a=.05, and effect size=.25).

General characteristics of the participants

　　Table 1 presents the demographic characteristics and culture-related experiences of the participants. There were 22 men and 148 women nursing students. Their average age was 20.2 years (SD =1.22). Over half of the

students were second-year (n=94), whereas 76 were third-year students. A majority (67.6%) of participants reported to have no religion. Over half of the students (59.4%) in the sample had a GPA ranging from 3.50 to 4.50 in their last semester.

Culture-related experiences of Korean nursing students

About one-fourth of the sample (24.1%) took or currently is taking a multicultural nursing-related course in the curriculum. Over half of the students (58.2%) reported that they had at least one overseas travel experience. Most (60%) students perceived that their level of foreign language fluency is 'not good,' and 71.2% students reported that they had more than one foreign friend or relative. Most students (88.8%) reported that they had experiences with using mass media to engage in one or more multi-culture related programs. Among them, about half of the students (46.5%) were categorized as primarily assimilators among the four learning types.

Table 1. Cultural Competency of Participants ($N = 170$).

Characteristics	Categories	n (%)	Cultural competency		
			M ± SD	F/t	p
Gender	Male	22 (12.9)	3.25 ± 0.56		
	Female	148 (87.1)	3.28 ± 0.38	0.101	0.751
Age (year)	19	43 (25.3)	3.25 ± 0.37		
	20	82 (48.2)	3.27 ± 0.42		
	≥21	45 (26.5)	3.32 ± 0.42	0.402	0.669
	M = 20.2	SD = 1.22			
Grade	2nd year	94 (55.3)	3.29 ± 0.39		
	3rd year	76 (44.7)	3.25 ± 0.43	0.367	0.546
Religion	No	115 (67.6)	3.28 ± 0.43		
	Yes	55 (32.4)	3.26 ± 0.37	0.059	0.809
GPA	Low group	12 (7.1)	3.13 ± 0.42		
	Middle group	57 (33.5)	3.30 ± 0.44		
	High group	101 (59.4)	3.28 ± 0.39	0.879	0.417
Experience of taking multi-cultural course	No	129 (75.9)	3.27 ± 0.40		
	Yes	41 (24.1)	3.27 ± 0.43	0.001	0.979
Having overseas travel	None	71 (41.8)	3.21 ± 0.41		
	1-2	65 (38.2)	3.30 ± 0.39		
	3-4	20 (20.0)	3.33 ± 0.37		
	≥5	14(	3.39 ± 0.49	1.115	0.344
Foreign language fluency	Not good	102 (60.0)	3.19 ± 0.38		
	≥ Average	68 (40.0)	3.41 ± 0.42	13.207	<.001
Have foreign friends	No	121 (71.2)	3.22 ± 0.41		
	Yes	49 (28.8)	3.40 ± 0.39	6.967	0.009
Media contact experience	Never	19 (11.2)	2.94 ± 0.41		
	Sometimes	132 (77.6)	3.30 ± 0.39		
	Frequently	19 (11.2)	3.44 ± 0.37	9.120	<.001
Learning-style	Diverger	32 (18.8)	3.23 ± 0.37		
	Accommodator	29 (17.1)	3.21 ± 0.42		
	Converger	30 (17.6)	3.28 ± 0.34		
	Assimilator	79 (46.5)	3.31 ± 0.44	0.595	0.619

Levels of empathy and cultural competency of Korean nursing students

Table 2 presents the mean scores of measures of empathy and cultural competency. The mean for the empathy and cultural competency was 3.77(± 0.38) and 3.28 (± 0.41), respectively. Among cultural competency subscale scores, cultural awareness had the highest score (4.29 ± 0.53), whereas cultural knowledge had the lowest score (2.64 ± 0.62) followed by cultural skill (2.95 ± 0.68).

Table 2. Levels of Empathy and Cultural Competency

	M ± S.D.	Range	Reliability
Empathy	3.77 ± 0.38	2.60-4.67	0.838

Cultural competency	3.28 ± 0.41	1.90-4.40	0.866
Cultural awareness	4.29±0.53	2.25-5.00	0.826
Cultural knowledge	2.64±0.62	1.11-4.11	0.861
Cultural skill	2.95±0.68	1.17-4.50	0.844
Cultural sensitivity	4.12±0.57	2.25-5.00	0.671
Cultural experience	3.33±0.69	1.25-5.00	0.697

Bivariate relationships between participant characteristics

As shown in Table 1, significant differences in cultural competency were found among participants reporting foreign language fluency, having foreign friends or relatives, and number of media contact experiences. Those students who reported foreign language fluency with more than an average level ($p< 0.001$), had at least one foreign friend or relative ($p = 0.009$), had some or frequent experiences with contacting multicultural programs through mass media ($p <0.001$), were more likely to report a high level of cultural competency compared with the students in the other groups. There were no significant differences in cultural competency by the four different learning types.

Correlations between cultural competence and empathy

Pearson correlation coefficients were calculated to determine the relationships among the two major variables (Table 3). There was a low level of positive correlation between cultural competency and empathy (r =.33, $p<.01$). Except for cultural knowledge, the other subscale levels of cultural competency were correlated with empathy. As expected, empathy was more positively correlated with cultural sensitivity and experience compared with the other three sub-levels.

Table 3. Correlations between Empathy and Cultural Competency

	Empathy	Cultural competency	Cultural awareness	Cultural knowledge	Cultural sensitivity	Cultural experience
Empathy	1					
Cultural competency	.33**	1				
Cultural awareness	.26**		1			
Cultural knowledge	.12			1		
Cultural skill	.17*				1	
Cultural sensitivity	.35**					1
Cultural. experience	.36**					

Predictive factors for cultural competency

To determine the effects of the covariates identified in the literature that could have a significant influence on cultural competency among nursing students, stepwise multiple linear regressions (backward elimination method) were done. For the final analyses, only variables that showed statistically significant relationships with cultural competency ($p<=.05$) in Table 1 and 3 were included. To find the best model fit, variables with the lowest p-values were repeatedly removed from the model. The final model showed that three variables (foreign language fluency, media contact experience, and empathy) significantly predicted cultural competency of the sample (F = 15.83, $p< .001$). The model explains 20.8% of the variance in cultural competency, with most of the variation explained by the media contact experience and empathy (Table 4).

Table 4. Stepwise Multiple Regressions for Influencing Factors

Independent Variables	B	SE	β	t	p	Adjusted R^2
Constant	1.873	.276		6.786	.000	
Foreign language fluency*	.210	.057	.254	3.704	<.001	.067
Media contact experience*	.284	.091	.221	3.121	.002	.146
Empathy	.282	.075	.266	3.754	<.001	.208
F = 15.83, $p< .001$, Adjusted R^2 = .208						

Discussion

This study examined the culture-related experiences of Korean nursing students and identified factors influencing their perceived level of cultural competency using a cross-sectional survey of 170 undergraduate Korean nursing students.

Results suggest that nursing students are characterized by different learning styles. For example, similar to Kolb (2015), results of this study found that the modal cultural learning style among the population studied was assimilator (i.e., characterized by abstract conceptualization and reflective observation). Additionally, we found that nursing students with more foreign language fluency, media contact experience, and empathy showed higher cultural competency. These findings are consistent with those of several others (Bae, 2015; Kim, 2015; Han, 2020; Park, 2011).

Of particular interest is the relationship between cultural competency, empathy, and foreign language fluency. Similar to findings of other investigators (Han, 2014, 2020; Kim, 2015), cultural competency (including several subscales) was significantly and positively correlated with empathy. Further, foreign language fluency was significantly associated with cultural competency in this study and others (Bae, 2015; Han, 2020; Park, 2011). We hypothesize that confidence in speaking a foreign language may be the first step towards understanding different cultures, and consequently may help students understand phenomena that they encounter when interacting with persons from other cultures.

Moreover, results of this study highlight the importance of multicultural education. The authors propose developing multicultural education programs using a variety of curriculum-based and extracurricular approaches, such as improving foreign language fluency, skills for communication with persons from other cultures, and providing cultural experiences. In combination, these learning experiences can be expected to enhance cultural competency based and empathy.

Study participants were limited to currently registered second- and third-year students at a single Korean university. Consequently, findings cannot be generalized to other populations. Additionally, the cross-sectional study design limits the ability to attribute cause.

Conclusion

This study identified that nursing students with a higher empathy, higher foreign language fluency, and more frequent experiences with using media had a higher cultural competency than the other nursing students. That is, cultural competency appeared to be influenced more by an experience-based multicultural approach rather than only socio-demographic factors such as age and level of education. This information could be used to develop cultural education programs for nursing students in an effort to improve their cultural competency and in turn, the quality of nursing care.

Recommendations and Implications for Nursing Practice and Future Research

Our results suggest that nursing students are characterized by different learning styles, and certain modifiable factors (i.e., experiences) are associated with higher cultural competency. Information about nursing students' learning styles may be useful in creating learning experiences that are more effective in developing students' cultural competency. For example, nurse educators might consider measuring student's cultural learning styles, and tailoring learning experiences to these individual learning styles. However, if tailoring is not feasible, educators may consider prioritizing inclusion of learning experiences designed for the assimilator style of learning (as this was most common), as well as incorporating multicultural experiences in the curriculum.

Additionally, empathy was a major explanatory variable in understanding level of cultural competency. However, we know very little about the phenomenon of empathy, and factors influencing it. Consequently, there is a need for future research explaining this phenomenon and understanding how it can be used to enhance nursing education and nurses' cultural competence.

The characteristic of having foreign friends was also a significant predictor of cultural competence. Therefore, inclusion of learning activities that foster development of friendships and other connections among individuals and groups of different cultures (e.g., volunteer activities) may be an effective method of augmenting cultural competence among nursing students

As an exemplar, some Korean colleges and universities offer global nursing or multicultural nursing education (primarily to first- or second-year students) in the form of elective courses, as guided by the Korea Accreditation Board of Nursing Education (Choi & Lee, 2019; Peek & Park, 2013). The authors recommend that these courses continue to be offered, as appropriate to the learning needs of students participating (Choi et al., 2016).

References

Ahn, O. H., Baek, S. S., & Kim, J. S. (2012). Cultural competency by multicultural experiences of nursing college students. Journal of the Korean Society for Multicultural Health, 2(2), 19-26.

Bae, Y, S. (2015). A study on the relationship between cultural competence and empathy of nursing students. Journal of East-West Nursing Research, 21(1), 52-60. dx.doi.org/10.14370/jewnr.2015.21.1.52

Campinha-Bacote, J. (2002). The process of cultural competence in the delivery of health care services: A model of care. Journal of Transcultural Nursing, 12(3), 181-184. doi: 10.1177/10459602013003003

Campinha-Bacote, J. (2007). Becoming culturally component in ethnic psychopharmacology. Journal of Psychosocial Nursing and Mental Health Sercies, 45(9), 27-33. doi:10.3928/02793695-20070901-09

Campinha-Bacote, J. (2007a). The process of cultural competence in the delivery of healthcare services: A culturally competent model of care (5th ed.). Cincinnati, OH: Transcultural C.A.R.E. Associates.

Chae, D. H., Park, Y, H., Kang, K, H., & Lee, T. H. (2012). A study on factors affecting cultural competency of general hospital nurses. Journal of Korean Academy of Nursing Administration. 18(1), 76-86.

Chae, M. J., Kim, J, I., & Lee, J, H. (2015). Effects of a multicultural course on the multicultural acceptability and competency of nursing students. Journal of Koreamm Academic Society Nursing Education, 21(3), 373-381. doi.org/10.5977/jkasne.2015.21.3.373

Cho, M. K., & Jang, H, Y. (2015). Factors influencing cultural competency among nursing students. Journal of the Korean Data Anaysis Society, 17(5), 2795-2808. doi.org/10.4094/jkachn.2011.17.4.222

Choi, K. S, Lee, S. Y., Park, Y. W., Jun, M. H., & Choi, J. Y. (2016). Development and evaluation of the educational program for nursing professionals: cultural competency in cancer prevention. Asian Oncology Nursing, 16(2), 112-120. doi.org/10.5388/aon.2016.16.2.112

Choi, Y. N., & Lee, T. W. (2019). The influencing factors of the cultural competence in undergraduate nursing students. Journal of the Korean Data & Information Science Society, 30(3), 597-610. doi.org/10.7465/jkdi.2019.30.3.597

Davis, M. H. (1983). Measuring individual differences in empathy: evidence for a multidimensional approach. Journal of Paersonality and Social Psychology, 44(1), 113-126. doi.org/10.1037/0022-3514.44.1.113

Han, S. Y. (2014). Development of a cultural competence scale for nursing students. Unpublished doctoral dissertation, Chonnam National University, Gwangjoo.

Han, S. Y. (2016). Factors influencing to the cultural competence in nursing students. Journal of Learner-Centered Curriculum and Instruction, 16(4), 73-86. doi.org/10.14400/JDC.2014.12.6.415

Han, S. Y. (2020). The influencing factors of the cultural competence, intercultural communication skill ability, and empathy ability in nursing college students. Journal of Learner-Centered Curriculum and Instruction, 20(1), 905-922.

Hong, S. Y. (2009). Clinical performance competency by nursing students' learning style. Unpublished master thesis, Kyungpook National University, Daegu.

Hwang, J. D. (2020). Meta-Analysis on the effect of multicultural nursing competency programs. Journal of Learner-Centered Curriculum and Instruction, 20(3), 431-446.

Jeon, B. S. (2003). The relationship between empathy and altruistic behavior. Unpublished master thesis, Chungnam University, Daejon.

Jeon, H. K. (2002). The relationship between learning styles and majors of college students. Unpublished master thesis, Younsei university, Seoul.

Kim. J. M. (2010). Personality type, learning style, self-direction and academic achievement on nursing students. Journal of Future Oriented Youth Society, 7(2), 1-25.

Kim, J. M. (2015). The relationship between emotional intelligence, cultural empathy and cultural competency in nursing students. Unpublished master thesis, Kosin University, Busan.

Kim, K. H. (2020). Effects of multicultural awareness and cultural empathy on cultural competency in nursing students. Journal of the Korea Academic-Industrial Cooperation Soceity, 21(8). 241-247. doi.org/10.5762/KAIS.2020.21.8.241

Kim, M. A., & Choi, S. E. (2018). A literature review of the studies on cultural competency of nurses and nursing students in Korea. Journal of Korean Academic Community Health Nursing, 29(4), 450-466. doi.org/10.12799/jkachn.2018.29.4.450

Kim, M. S., Kim, Y. E., Park, N. Y., Park, S. E., Shin, R. B. K., Lee, Y. N., Lee, J. M., In, Y. K., Chu, M. J., & Hwang, S. H. (2017). The correlation between the cultural competence of nurses and nursing service satisfaction in Korea perceived by foreign patients. Journal of Nursing Academic Association of Ewha Womans University, 51(113), 89-113.

Kim, S. O., & Pak, S. Y. (2013). Effects of high-fidelity simulation-based training of nursing students according to their learning style. Journal of The Korean Contents Association, 13(11), 1046-1057. doi.org/10.5392/JKCA.2013.13.11.1046

Kolb, D. A. (1985). Learning Style Inventory. McBer& Company. Boston, MA.

Lee, M. J. (2016). Development and effect on cultural competence program for undergraduate nursing students. Unpublished doctoral dissertation, Kangwon National University, Chuncheon.

Ministry of Justice. (2019). Annual report of Korean Immigration Service Statistics. Retrieved from https://www.immigration.go.kr/bbs/immigration/228/412967/synapView.do

Ministry of Welfare. (2017). Statistics on international patients in Korea, 2016. Korea Health Industry Development Institute. Retrieved from https://www.khidi.or.kr/board/view?pageNum=7&rowCnt=10&no1=704&linkId=221358&menuId=MENU00085&maxIndex=00488518229998&minIndex=00002139799998&schType=0&schText=&schStartDate=&schEndDate=&boardStyle=&categoryId=&continent=&country=

Pak, S, Y. (2016). Relationship between self-reflection, critical thinking disposition, multi cultural experience and cultural competence in nursing students. Journal of Digital Convergence, 14(12), 345-355. doi.org/10.14400/JDC.2016.14.12.345

Park, H. S., Jang, H. J., & Jeong, G. H. (2019). Effects of a cultural nursing course to enhance the cultural competence of nursing students in Korea. Journal of Educational Evaluaion for Health Professions. 16(39). 1-8. doi: 10.3352/jeehp.2019.16.39

Park, J. S. (2011). Study on cultural competence of nursses working in general hospital. Unpublished master thesis, Keimyung University, Daegu.

Peek, E. H., & Park, C. S. (2013). Effects of a multicultural education program on the cultural competence, empathy and self-efficacy of nursing students. Journal Korean Academic Nursing, 43(5), 690-696. doi.org/10.4040/jkan.2013.43.5.690

Ra, M. O. (2017). The development and effect of multicultural nursing education program with experience-based for nursing students. Unpublished master thesis, Nambu University, Gwangju.

Seo, Y. S., & Kwon, Y. C. (2014). Factors influencing to he cultural competence in nursing students. Journal of Digital Convergence, 12(6), 415-423.

Suk, M. H., Oh, W. O., &Im, Y. J. (2018). Factors affecting the cultural competence of visiting nurses for rural multicultural family support in South Korea. BMC Nursing, 17(1). doi:10.1186/s12912-017-0269-4

Yang, N. Y., & Song, M. S. (2018). Influence of self-efficacy and intercultural communicative competence on the cultural competence of allied health college students. Journal of Korean Academic Society of Home Health Care Nursing. 25(2), 157-154. doi: 10.22705/jkashcn.2018.25.2.147

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