

# Analysis of the effectiveness of international nursing practicum over national nursing practicum

Análise da efetividade do estágio prático internacional de enfermagem em relação ao estágio prático nacional de enfermagem

Análisis de la efectividad de la práctica profesional internacional de enfermería con relación a la práctica profesional nacional de enfermería

Esther O. Park<sup>1</sup>**Keywords**

Nursing practicum; Self-efficacy; Cultural competency; Global competency; Experimental study

**Descritores**

Prática de enfermagem; Auto-eficácia; Competência cultural; Competência global; Estudo experimental

**Descriptores**

Práctica de enfermería; La auto-eficacia; Competencia cultural; Competencia global; Estudio experimental

**Submitted**

September 19, 2018

**Accepted**

March 7, 2019

**Corresponding author**

Esther O. Park  
<https://orcid.org/0000-0001-6884-4195>  
 E-mail: [visionaryesther@gmail.com](mailto:visionaryesther@gmail.com)

**DOI**

<http://dx.doi.org/10.1590/1982-0194201900022>

**Abstract**

**Objective:** This study was conducted to examine the effectiveness of international nursing practicum on self-efficacy, cultural competency, and global competency.

**Methods:** A purposive sampling method was used to collect the data: the participants were nursing students (n=66) who had advanced into the 2nd semester of junior level. For the factor analysis, the results of a questionnaire survey were pooled from the control and experimental groups (n=132). The survey was administered before and after the national and international nursing practicum for the control and experimental groups, respectively. The t-test was used to compare the two groups, and Difference in Difference (DID) was used to determine the true change between before and after the practicum. But if you are describing international nursing practicums and domestic nursing practicums, i.e., many different courses in different countries, and here in Korea in different universities. DID analysis also showed that the level of change before and after each nursing practicum differed significantly between the control and experimental groups. Results: Factor analysis confirmed that the survey questionnaire reliably measured the sub-concepts. The differences in self-efficacy and cultural competency between the two groups were statistically significant before and after the treatment, but DID results were not significant. For global competency, however, both DID and the difference before and after treatment between the two groups were statistically significant. Conclusion: Despite a few study limitations, the innovative study design generated findings that help to fill a large gap in nursing knowledge. Future studies should include a randomized clinical trial to overcome the limitations of sampling bias and generalization of study results.

**Resumo**

**Objetivo:** Este estudo foi conduzido para avaliar a efetividade do estágio prático internacional de enfermagem quanto à autoeficácia, competência cultural e competência global. Foi utilizada a análise fatorial para avaliar a confiabilidade das medidas do estudo.

**Métodos:** Um método de amostragem intencional foi usado para coletar os dados: os participantes eram estudantes de enfermagem (n=66) do segundo semestre do terceiro ano do curso de graduação. Para a análise fatorial, foram agrupados os resultados obtidos dos grupos controle e experimental (n=132) por meio de um questionário. A pesquisa foi realizada antes e após o estágio prático nacional e internacional de enfermagem para os grupos controle e experimental, respectivamente. O teste t foi utilizado para comparar os dois grupos, e Diferença em Diferenças (DD) foi utilizado para determinar a verdadeira alteração entre antes e depois do estágio. A análise do DD também mostrou que o nível de mudança antes e depois de cada estágio de enfermagem foi significativa entre os grupos controle e experimental. Resultados: A análise fatorial demonstrou que o questionário da pesquisa mensurou com confiabilidade os subconceitos. As diferenças na autoeficácia e na competência cultural entre os dois grupos foram estatisticamente significativas antes e depois do tratamento, mas os resultados de DD não foram significativos. Para a competência global, no entanto, tanto o DD quanto a diferença antes e depois do tratamento entre os dois grupos foram estatisticamente significativos. Conclusão: Apesar de algumas limitações do estudo, o desenho inovador gerou resultados que ajudam a preencher uma grande lacuna no conhecimento de enfermagem. Estudos futuros devem incluir um ensaio clínico randomizado para superar as limitações de viés de amostragem e generalização dos resultados do estudo.

**Resumen**

**Objetivo:** Este estudio fue llevado a cabo para analizar la efectividad de la práctica profesional internacional de enfermería en cuanto a la autoeficacia, competencia cultural y competencia global. Se utilizó el análisis factorial para evaluar la confiabilidad de las medidas del estudio.

**Métodos:** Fue utilizado un método de muestreo intencional para recopilar los datos: los participantes eran estudiantes de enfermería (n=66) del segundo semestre de tercer año de la carrera de grado. Para el análisis factorial, se agruparon los resultados obtenidos de los grupos de control y experimental (n=132) a través de un cuestionario. La investigación fue realizada antes y después de la práctica profesional nacional e internacional de enfermería en grupos de control y experimental, respectivamente. Se utilizó el test-T para comparar los dos grupos y la técnica Diferencia en Diferencias (DD) para determinar la verdadera modificación entre antes y después de la práctica. El análisis de DD también demostró que el nivel de cambio antes y después de cada práctica de enfermería fue significativo entre los grupos de control y experimental. Resultados: El análisis factorial demostró que el cuestionario de la investigación midió los subconceptos con confiabilidad. Las diferencias de autoeficacia y competencia cultural entre los dos grupos fueron estadísticamente significativas antes y después del tratamiento, pero los resultados de DD no fueron significativos. Sin embargo, en la competencia global, tanto la DD como la diferencia antes y después del tratamiento entre los dos grupos fueron estadísticamente significativas. Conclusión: A pesar de algunas limitaciones del estudio, el diseño innovador generó resultados que ayudan a llenar un gran vacío en el conocimiento de enfermería. Estudios futuros deben incluir un ensayo clínico aleatorizado para superar las limitaciones de perspectiva de muestreo y generalización de los resultados del estudio.

**How to cite:**

Park EO. Analysis of the effectiveness of international nursing practicum over national nursing practicum. Acta Paul Enferm. 2019;32(2):153-61.

<sup>1</sup>Daegu University, Daegu, South Korea.  
 Conflicts of interest: none to declare.

## Introduction

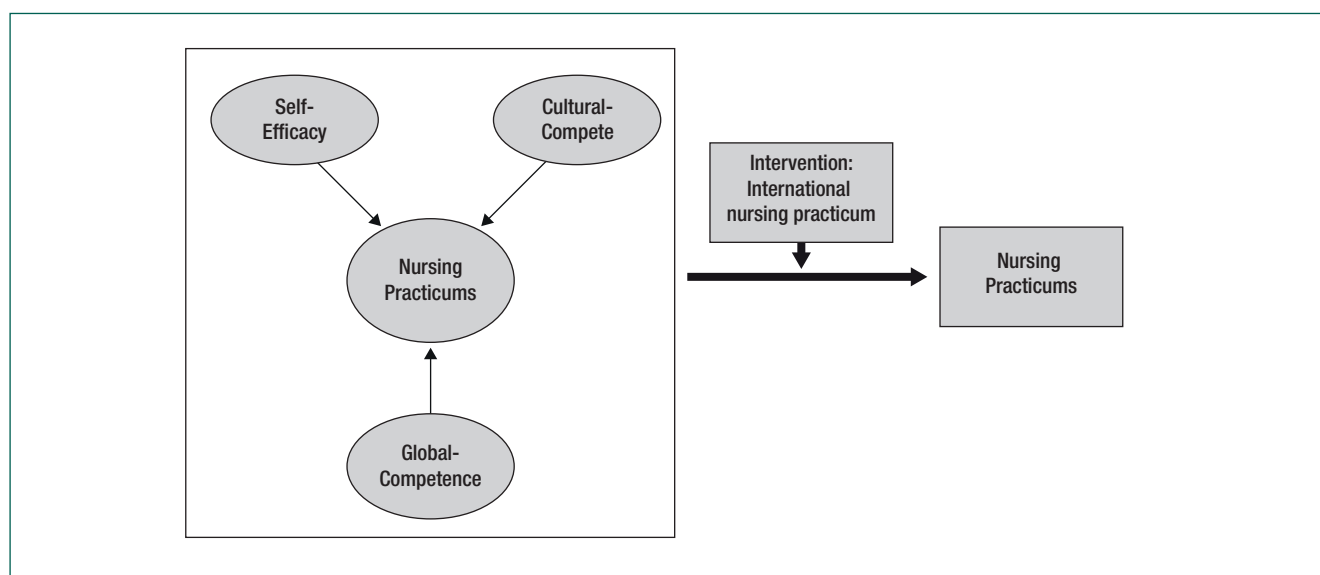
Recent changes in the medical setting, such as easy access to medical information, increased prevalence of chronic illness and patient acuity, and increased patient diversity, require nursing professionals to be equipped with more diverse and sophisticated nursing knowledge and skills. Moreover, the development of complicated medical instruments such as advanced patient monitoring systems requires that undergraduate nursing students both learn how to use such equipment and delve into key nursing knowledge while they are on campus. This causes undergraduates to feel more burdened as they prepare to become functional nurses.<sup>(1,2)</sup> Therefore, the need for a nursing curriculum that strengthens nursing students' character, making it easier for them to easily accommodate to changing medical settings, has been raised.<sup>(3-6)</sup> In this context, studies have frequently been conducted on strengthening self-efficacy,<sup>(7)</sup> cultural competency<sup>(8)</sup> and global competency.<sup>(9)</sup>

In 2017, the estimated foreign population living in South Korea was 1.5 million, which accounted for about 3% of the total population.<sup>(10)</sup> Therefore, nurses more frequently meet foreign patients in the medical field in Korea and so must be able to provide diverse demographic-sensitive

nursing services.<sup>(11)</sup> However, the nursing curriculum for undergraduates in Korea is not sufficiently well developed to provide novice nurses with competency for cultural diversity and globalization. Indeed, the cultural competency of Korean nursing undergraduates lags that of nursing students from other countries where diversity training began earlier.<sup>(9,12)</sup>

The employment rate of nursing majors (70% average) surpasses that of other majors (60% average) in Korea. Despite the high employment rate for nursing majors, nurses' willingness (76% average) to move jobs also surpasses that of other medical-related professionals. Hence, nursing curriculum reforms have been requested to strengthen students' self-efficacy and cultural and global competency<sup>(13)</sup> so they are prepared to tolerate these changes in the medical workplace. On the other hand, experimental studies on the development of self-efficacy and cultural and global competency are sparse.

Previous studies reported self-efficacy as one of the core factors influencing effective implementation of nursing practicum.<sup>(1,14-16)</sup> These studies suggest that self-efficacy positively affects cultural and global competency. Self-efficacy is a personal conviction of "how well one can execute courses of action required to deal with prospective situations" (Bandura, 1982, p.122);<sup>(17)</sup> evidence has been found and global competency was built (Figure 1).



**Figure 1.** Conceptual framework for self-efficacy, cultural & global competency, and nursing practicum

The study purpose is to examine how positively the international nursing practicum improves nursing students' self-efficacy and cultural and global competency. The experimental group (n=35) was taught the international nursing practicum and the control group (n=31) the national nursing practicum to examine the effect of the treatment (implementation of international nursing practicum) on the independent variables (self-efficacy, cultural and global competency). To prove the reliability of using the study measures, factor analysis was also implemented for the core concepts. Therefore, the specific study objectives and study questions are as follows:

1. Are the factors (self-efficacy, cultural competency, global competency) of the core concepts in this study reliably measured by the instruments used in this study's questionnaire survey?
2. Did the international nursing practicum implemented for the experimental group significantly influence participants' self-efficacy and cultural and global competency?

## Methods

### Study participants

The study sample of 66 nursing students was collected by purposive sampling from a university in the southern part of S. Korea. They were in the second semester of their junior level. The nursing curriculum in the university requires nursing students to start nursing practicum in the first semester of their junior level, so each study participant had completed 270 hours of nursing practicum in the first semester and successfully advanced to the second semester of the junior level. The study subjects who agreed and signed the consent form were assigned to the control group (n=31) and students who applied for the international nursing practicum and agreed to participate were assigned to the experimental group (n=35). The sample size was justified using A Priori G\*Power analysis 3.1 for two-tailed study power of 0.8, significance level of 0.05, and medium effect. The calculated sample size was 59. The sample size of 66 satisfied this calculation.

## Measurement

### Self-efficacy

The conceptual definition of self-efficacy is a personal conviction of "how well one can execute courses of action required to deal with prospective situations" (Bandura, 1982). Self-efficacy was measured by Hong's version (1995)<sup>(20)</sup> which was modified from the original version invented by Sherer and Maddux (1982).<sup>(21)</sup> To look at the operational definition of self-efficacy, the tool consisted of 23 questions on a 5-point Likert scale ranging from 'not at all (1 point)' to 'strongly agree (5 points)'. The total score of this scale ranged from 23 to 115, with a higher score indicating better self-efficacy. The reliability of the modified scale by Hong (1995) was .86, which showed internal consistency; Cronbach's alpha was also 0.86.

### Cultural competency

The conceptual definition of cultural competency was "the consistent behavior, attitude, and policy of personal, organization, and service delivery system which make a service delivered effectively in diverse culture (Cross, Bazron, Dennis & Isaacs (1989).<sup>(22)</sup> For the operational definition of cultural competency, the measure developed by Han & Chung (2014)<sup>(23)</sup> was used. This scale included 58 questions on a 5-point Likert Scale. Each question is answered from 'not at all (1 point)' to 'strongly agree (5 points)' for a total score ranging from 58 to 290. The higher the total score, the higher the cultural competency. Han & Chung (2014) reported Cronbach's alpha of 0.914 for reliability; this study's Cronbach's alpha of 0.92 also showed internal consistency.

### Global competence

Global competence was conceptually defined as a perspective on global consciousness that emphasizes the personal capacity for flexibility toward diverse cultures, religions, economics, etc. (Mansilla & Jackson, 2011).<sup>(24)</sup> Shin and Noh (2013)<sup>(25)</sup> modified this scale and finalized 28 questions from the original measure. Each question on Shin and Noh's scale is a 5-point Likert Scale ranging from 'not at all (1 point)' to 'strongly agree (5 points)', for a total

score ranging from 28 to 140. A higher total score means a higher level of global competence. Shin and Noh (2013) reported Cronbach's alpha of 0.92 for reliability and this had a Cronbach's alpha of 0.89.

### Sampling method and ethical consideration

The study data were collected from Jan. 2015 to Feb. 2017. The study was approved by the Institute Research Board (IRB) of the university where the participants were registered in the baccalaureate nursing program (Approved IRB number: 1040621-201609-HR-018-05). The subjects in the experimental group were students who applied and were accepted for international nursing practicum; they were then recruited, agreed and signed a consent form to participate. On the other hand, the subjects in the control group were recruited from the general nursing students; they also agreed and signed a consent form to participate. All participants had successfully completed 270 hours of national nursing practicum in the first semester of junior level and had advanced into the second semester of junior level. All students had the right to withdraw from at any point if they wished.

### Analysis

The data were analyzed using Stata 14.0 (2015; Stata 14.0 Statistical Software, College Station, TX, USA) in two steps. First, for factor analysis, the questionnaire results were pooled for the control and experimental groups ( $n=132$ ). This factor analysis confirmed that the questionnaire survey reliably measuring the sub-concepts to answer the research questions. In the control group, the measures were applied before and after the national nursing practicum of the 2<sup>nd</sup> semester of junior level. Likewise, the measures were applied before ( $N=66$ : Control group=31, Experimental group=35) and after ( $N=66$ : Control group=31, Experimental group=35) the international nursing practicum of the 2<sup>nd</sup> semester of junior level for participants in the experimental group. To compare the two groups, t-test was used and Difference in Difference (DID) was used to see if the difference in-between the two groups was statistically significant. The DID analysis also showed whether the level of change before

and after each nursing practicum in the control and experimental groups had statistical significance.

## Results

### Self-efficacy

Hong's (1995) modified version includes 23 questions, and factor analysis showed that one factor reflected the conceptual definition of the concept (Figure 2). The first factor (1, 3-7, 10, 12, 14-17, 20) was linked with the operational definition of self-efficacy, unlike two other factors that were linked to prejudice toward others and friendship. Thus, for congruency, the mean score of factor 1 was calculated and used, which indicated how well courses of action that are required to deal with prospective situations, which was measured as self-efficacy, can be executed.

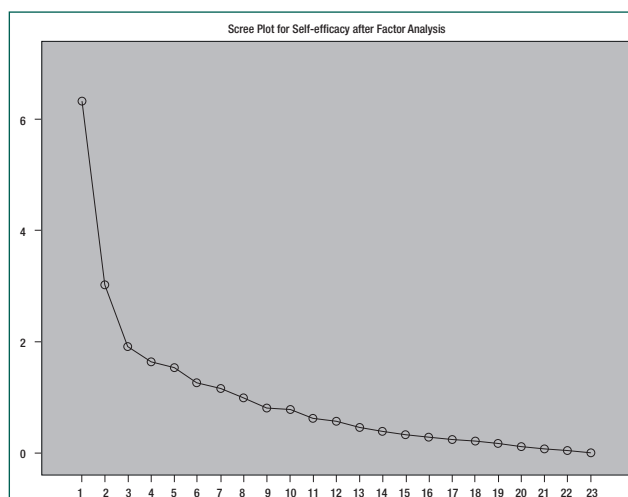


Figure 2. Scree plot of self-efficacy after factor analysis

Self-efficacy was slightly improved in both groups after the national and international nursing practicums (the treatment). The significance level of the difference between the two groups in self-efficacy was as follows. First, before the nursing practicums, the difference between the control and experimental groups was 0.405, which was statistically significant ( $p < 0.001$ ). After the nursing practicums, the difference between the two groups was 0.436, which remained statistically significant ( $p < 0.001$ ). However, DID anal-

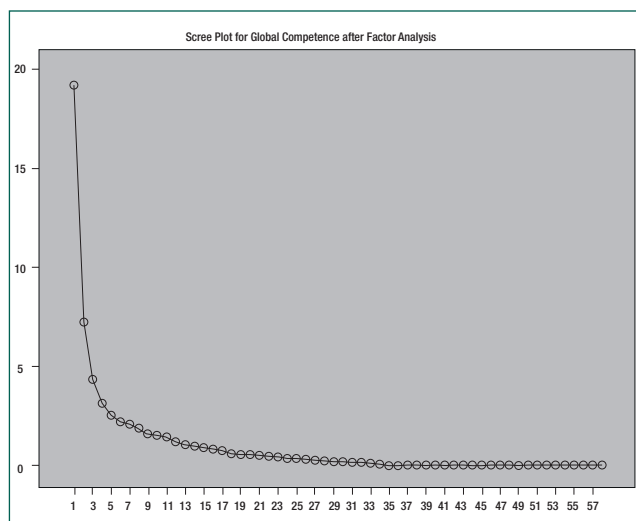
ysis, to judge whether or not the group difference before and after the treatment was statistically significant, found that the difference between the two groups was 0.031, but this was statistically insignificant. Before simply concluding that the results were not significant, this author re-examined this result using DID analysis to decrease standard errors by repeating the study with a bigger sample size in the future (Table 1).

### Cultural competence

The factor analysis extracted three factors: respect for other cultures, multicultural-service capacity, and knowledge of other cultures (Figure 3). The scores for the difference within a group measuring 'respect for other cultures' before and after nursing practicum were statistically significant for both groups. However, DID showed the difference was not significant ( $p$ -value=0.389) (Table1).

**Table 1.** Changes in the two groups before and after treatment

Outcome Variable	Before treatment			After treatment			Difference Before&After
	Control group	Experimental group	Difference	Control group	Experimental group	difference	
Self-efficacy							DID
Mean	3.357	3.763	0.405	3.494	3.930	0.436	0.031
Std.Error	0.081	0.079	0.113	0.094	0.075	0.121	0.165
t	41.452	47.631	3.583	37.009	52.321	3.617	0.188
P> t	0.000	0.000	0.000	0.000	0.000	0.000	0.851
Respect for other cultures							DID
Mean	4.116	4.486	0.370	3.962	4.476	0.514	0.144
Std.Error	0.072	0.059	0.093	0.122	0.063	0.138	0.166
t	57.421	76.059	3.988	32.346	70.521	3.724	0.864
P> t	0.000	0.000	0.000	0.000	0.000	0.000	0.389
Multi-cultural service capacity							DID
Mean	3.061	3.160	0.099	3.077	3.474	0.397	0.298
Std.Error	0.076	0.096	0.122	0.111	0.131	0.171	0.210
t	40.389	32.982	0.808	27.806	26.559	2.316	1.417
P> t	0.000	0.000	0.421	0.000	0.000	0.022	0.159
Knowledge of other culture							DID
Mean	2.403	2.222	0.181	2.442	2.687	0.245	0.426
Std.Error	0.622	0.729	0.208	0.637	0.734	0.196	0.245
t	3.863	3.049	0.871	3.833	3.661	1.249	1.737
P> t	0.000	0.003	0.385	0.000	0.000	0.214	0.085
Language Competency							DID
Mean	2.968	3.396	0.428	3.313	3.869	0.556	0.128
Std.Error	0.128	0.105	0.166	0.103	0.086	0.135	0.214
t	23.104	32.432	2.584	32.023	44.772	4.124	0.598
P> t	0.000	0.000	0.011	0.000	0.000	0.000	0.551
Creative Solution							DID
Mean	3.097	3.136	0.039	3.000	3.543	0.543	0.504
Std.Error	0.122	0.116	0.168	0.129	0.111	0.170	0.240
t	25.302	27.088	0.231	23.261	31.863	3.188	2.104
P> t	0.000	0.000	0.818	0.000	0.000	0.002	0.037
Cultural Openness							DID
Mean	3.761	4.080	0.319	3.806	4.217	0.411	0.092
Std.Error	0.103	0.083	0.132	0.117	0.077	0.140	0.192
t	36.690	48.940	2.412	32.633	54.976	2.942	0.479
P> t	0.000	0.000	0.017	0.000	0.000	0.004	0.633
Global competency							DID
Mean	2.924	3.119	0.194	2.986	3.448	0.462	0.268
Std.Error	0.456	0.537	0.141	0.448	0.533	0.141	0.160
t	6.417	5.810	1.376	6.661	6.471	3.284	1.675
P> t	0.000	0.000	0.171	0.000	0.000	0.001	0.096

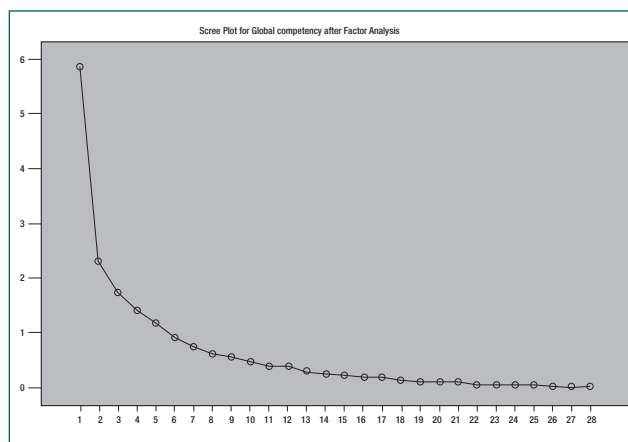


**Figure 3.** Scree Plot of Cultural Competency after Factor Analysis

The results showed no group difference in the capacity to provide ideal nursing service in diverse cultures before nursing practicum began ( $p$ -value = 0.421). However, the score for the capacity to provide ideal nursing service was higher in the experimental group than in the control group and the difference was statistically significant ( $p$ -value = 0.022). This implies that students who experienced providing nursing care in more diverse care-settings came to have a higher capacity for providing nursing services to patients with multicultural backgrounds. However, DID showed that the difference was not significant ( $p$ -value = 0.159) (Table 1). Although the results in table 1 showed that the two groups' differences in score before and after implementation of nursing practicum were insignificant, the DID was nearly significant in terms of the  $p$ -value < 0.10 ( $p$ -value = 0.085). Thus, students in the experimental group showed more improvement in their score of knowledge of other cultures than those in the control group (Table 1).

### Global competence

The factor analysis extracted three factors for global competence: language competence, creative solutions, and cultural openness (Figure 4). This analysis compared the scores of the three factors between the two groups and then constructed the variable 'global competence' by calculating the mean of those three factors' scores.



**Figure 4.** Scree Plot of Global Competency after Factor Analysis

Language competence was significantly different in the two groups based on analysis of scores before ( $p$ -value = 0.011) and after ( $p$ -value < 0.001) nursing practicum. However, DID showed that this was not statically significant ( $p$ -value = 0.551). The capacity for creative solutions was not significantly different in the two groups before ( $P$ -value=0.818), but the difference became significant after ( $p$ -value=0.002) practicum. Also, the DID showed that the capacity for creative solutions was significantly different ( $p$ -value= 0.037) in the two groups (Table 1). The score for cultural openness was higher in the experimental group than in the control group (difference=0.319), and this was statistically significant ( $p$ -value=0.017). This same was also observed after the nursing practicum in the two groups (difference=0.411) and the difference was again statistically significant ( $p$ -value=0.004). However, DID was not significant ( $p$ -value=0.633) (Table 1).

The prior analysis measured sub-concepts of global competence (Figure 4); the variable 'global competence' was constructed as the mean score of the three sub-concepts. The difference of global competence between the control and experimental groups before nursing practicum was non-significant ( $p$ -value =0.171). However, the score for global competence in the experimental group after nursing practicum was 0.462 higher than that in the control group and this was statistically significant ( $p$ -value=0.001). DID (0.268) shows the treatment effectiveness, indicating near significance ( $p$ -value=0.096) (Table 1).

## Discussion

Previous studies of self-efficacy mostly examined the effectiveness of self-efficacy.<sup>(1-2,7)</sup> A quasi-experimental study<sup>(26)</sup> that tested self-efficacy before and after nursing practicum was only a cross-sectional study and thus suffered some study limitations. Therefore, the present study was conducted to fill in the gaps in current knowledge. This study was innovative because it was an experimental study trying to show the effectiveness of the chosen international nursing practicum on self-efficacy over the effectiveness of the usual national nursing practicum, in addition to the effectiveness of national nursing practicum on self-efficacy as the current state of nursing knowledge.

In terms of self-efficacy, the difference before and after the nursing practicum in the two groups was not significant. However, the self-efficacy score was already 0.41 higher in the experimental group before the nursing practicum was implemented. This indicates that the level of self-efficacy for the nursing students who applied for the international nursing practicum was higher than that for the students who did not apply to the international program. This biased result could be supplemented in a future study with a randomized sampling.

Some studies have investigated the necessity for cultural competence with nursing students.<sup>(9,11-12)</sup> However, no study was found proving a difference in cultural competence in control vs. experimental groups after international nursing practicum were implemented. In this view, the present study is innovative. The capacity for delivering ideal nursing service in diverse environments was markedly improved after the international nursing practicum in the experimental group; this change also had statistical significance compared to the score increase in the control group. The assumption is that the international nursing practicum provides students more opportunities to meet patients with diverse cultural backgrounds and thus enables students to strengthen their cultural competence. The population census in S. Korea shows a relatively low proportion of foreigners compared to the United States or Europe; thus nursing students in Korea have fewer chances

to meet foreign patients than nursing students in western countries. However, Korea is becoming more diverse, which has led to changes in nursing environments. Therefore, nursing schools in Korea must be equipped with diverse nursing practicum such as international nursing practicum.

Previous studies have proved the necessity of strengthening global competence in nurses.<sup>(9,27)</sup> The present study is innovative since it provides knowledge on the effectiveness of international nursing practicum on global competence. Language competence was significantly higher in the experimental group than in the control group before students started their nursing practicum. This difference between the two groups remained after the students finished the nursing practicum but the difference between the two groups was not significant because the score for students in the experimental group was already higher and remained so after the practicum was over. This was also a study limitation due to the convenience and purposive sampling that was conducted. Hence in future studies, randomized sampling is highly recommended. Compared to the national nursing practicum, the chosen (Ed-confirm) international nursing practicum does not have a generalized practicum manual and this would require students in the international nursing practicum to think in depth to find solutions in new situations. Future repeated studies with the same purpose as the present study may confirm this effectiveness.

Likewise, cultural openness was also already higher in the experimental group before the nursing practicum were implemented. This made the results of DID insignificant since there was not a big difference in score following implementation of the nursing practicum. This may be overcome in future studies with a randomized clinical trial.

Although this study was an experimental study conducted to fill gaps in existing knowledge, there were a few limitations. The control group comprised students who agreed to participate after an explanation of the study purpose; however, the experimental group was formed of students who applied and were selected for the international nursing practicum. Thus, the purposive and convenient

sampling requires us to interpret the study results carefully. Future research should involve a randomized clinical trial for solid study results that can be generalized. Also, nationwide sampling rather than sampling in one city would enable the study to be generalized.

## Conclusion

This study was conducted to test if an international nursing practicum designed by a university located Southern part of S. Korea and implemented at a university located in Midwest of the United States of America shows better effectiveness for improving self-efficacy and cultural/global competence over the national (control group) nursing practicum. To do so, the international nursing practicum was made a treatment variable in the experimental group to see if it statistically affected the study variables. The experimental study results indicated that the scores of self-efficacy and cultural competency were not statistically significant before and after the treatment, but the difference between control and treatment groups was not statistically meaningful. However, global competency remained at a statistically significant level in the *t*-test and DID. Future studies warrant a randomized clinical trial to overcome the limitations of sampling bias and the study results should be generalized with a bigger sample collected nationwide.

## References

1. Park HS, Yun JM, Lee SY, Lee SL, Lee MS. The relationship between self-efficacy, major satisfaction and career decision level of nursing students. *J Health Inform Statistics*. 2018;43(1):35–45.
2. Song HY, Shin SH. The effects of emotional intelligence on the career decision-making self-efficacy and career decision levels of the nursing students. *J Korean Acad Industr Coop Soc*. 2016;17(9):628–40.
3. Bethavas V, Bridgman H, Kornhaber R, Cross M. The evidence for 'flipping out': A systematic review of the flipped classroom in nursing education. *Nurse Educ Today*. 2016;38:15–21.
4. Everly MC. Are students' impressions of improved learning through active learning methods reflected by improved test scores? *Nurse Educ Today*. 2013;33(2):148–51.
5. Martyn J, Terwijn R, Kek MY, Huijser H. Exploring the relationships between teaching, approaches to learning and critical thinking in a problem-based learning foundation nursing course. *Nurse Educ Today*. 2014;34(5):829–35.
6. Sangestani G, Khatiban M. Comparison of problem-based learning and lecture-based learning in midwifery. *Nurse Educ Today*. 2013;33(8):791–5.
7. Jacobson Vann JC, Hawley J, Segner S, Falk RJ, Harward DH, et al. Nursing intervention aimed at improving self-management for persons with chronic kidney disease in North Carolina Medicaid: a pilot project. *Nephrol Nurs J*. 2015;42(3):239–56.
8. Weideman YL, Young L, Lockhart JS, Grund FJ, Fridline MM, Panas M, SuchLockhart J, Grund FJ, Fridline MM, Panas M. Strengthening cultural competence in prenatal care with a virtual community: building capacity through collaboration. *J Prof Nurs*. 2016;32(5):48–53.
9. Hwang, SY, Kim JS, Ahn H, Kang SJ. Development and effect of a global health capacity building program for nursing students. *J Korean Acad Community Health Nurs*; 2015; 26(3):209-20.
10. National Statistical Office. Annual report on the vital statistics in Korea. Seoul: National Statistical Office of Korea; 2017.
11. Kim SH, Kim KW, Bae KE. Experiences of nurses who provide childbirth care for women with multi-cultural background. *J Korean Public Health Nurs*. 2014;28(1):87–101.
12. Yang SY, Lim HN, Lee JH. The study on relationship between cultural competency and empathy of nursing students. *J Korean Acad Soc Nurs Educ*. 2013;19(2):183–93.
13. Korean Educational Development Institute (KEDI). Education in Korea [Internet]. Korean: KEDI; c2011. [cited 2018 Sep 10] Available at <https://eng.kedi.re.kr/khome/eng/education/generrallInfo.do>
14. Roha YS, Lima EJ, Issenberg SB. Effects of an integrated simulation-based resuscitation skills training with clinical practicum on mastery learning and self-efficacy in nursing students. *Collegian*. 2016;23(1):53–9.
15. Park DY. The relationship among self-efficacy, decision making pattern in career and attitude in settling career of university students majoring in Taekwondo. *J Sports Sci*. 2010;19(4):319–31.
16. Liaw SY, Wu LT, Lopez V, Chow YL, Lim S, Holroyd E, et al. Development and psychometric testing of an instrument to compare career choice influences and perceptions of nursing among healthcare students. *BMC Med Educ*. 2017;17(1):72.
17. Bandura A. Human agency in social cognitive theory. *Am Psychol*. 1989;44(9):1175–84.
18. Bandura A. *Self-efficacy: the exercise of control*. New York (NY): Freeman and Company; 1997.
19. Kim YS, Park H, Hong SS, Chung HJ. Effects of a neonatal nursing practice program on students' stress, self-efficacy, and confidence. *Child Health Nurs Res*. 2018;24(3):319–28.
20. Hong HY. The relationship between perfectionism, self-efficacy, and depression. Master degree. Seoul: Ewha Women's University; 1995.
21. Sherer M, Maddux JE, Mercadante B, Prentice-dunn S, Jacobs B, & Rogers RW. The self-efficacy scale: construction and validation. *Psychol Reports*. 1982; 51(2):663-71.
22. Cross TL, Bazron BJ, Dennis KW, Isaacs MR. Monograph on effective services for minority children who are severely emotionally disturbed. Washington (DC): Georgetown University; 1989.
23. Han SY, Chung HI. A Psychometric test for cultural competency with nursing students. Kwangju: Jeonam University; 2014.



24. Mansilla V, Jackson A. Educating for global competence: Preparing our youth to engage the world. New York: Asia Society; and Washington. DC: Council of Chief State School Officers; 2011.
25. Shin SY, Noh EM. Developing a measurement tool for global competence and assessing its adequacy among university students in Korea. *Stud English Educ.* 2013;18(2):339–59.
26. Park S. Effects of an intensive clinical skills course on senior nursing students' self-confidence and clinical competence: A quasi-experimental post-test study. *Nurse Educ Today.* 2018;61:182–6.
27. Jogerst K, Callender B, Adams V, Evert J, Fields E, Hall T, et al. Identifying interprofessional global health competencies for 21<sup>st</sup>-century health professionals. *Ann Glob Health.* 2015;81(2):239–47.