

Effect of a global health training program for nursing students on global citizenship and cultural competencies

Hye Kyung Oh¹, Youn Kyoung Jang^{*2}, Jin Sun Kim³, Young Hae Jung⁴

Doctoral Student, Seoul National University¹,

Assistant Professor, Homan University²,

Professor, Chosun University³,

Professor, Korea Social Research Center⁴

katie5@snu.ac.kr¹, healthinall@gmail.com², jinsun@chosun.ac.kr³, aggiec@hanmail.net⁴

Abstract

This study was a quasi-experimental study with a single group pre-posttest design for evaluating the effects and meanings of a global health training program for nursing students. A mixed data collection method utilizing both qualitative and quantitative methods was applied. The qualitative method consisted of reflection journal entry analysis, while the quantitative study evaluated data collected from a self-reported questionnaire. After attending the program, cultural competencies of participants significantly increased than pre-test while global citizenship was not. Through an analysis of reflection journals written during the overseas training period, the meanings of experiences derived after the program were classified into five themes and 12 sub themes, which were, 'improvement of global health leadership', 'experience of barriers in reality', 'improvement of nursing professional value', 'inspiration of a perspective on health equity', and 'internal growth'. The results indicate that global health training program evaluated in this study was meaningful; it provided students with opportunities to experience the nurse's role in diverse global environments and attempted to measure the effects.

Keywords: *Global health training program, Nursing students, Global citizenship, Cultural competencies*

1. INTRODUCTION

In the September 2015 United Nations (UN) summit meeting, "ensuring healthy life of all age groups for everybody and the promotion of wellbeing" was selected as one of 17 Sustainable Development Goals (SDGs) that must be accomplished by 2030 [1]. This goal was an expansion of the goal for comprehensive health care for all, which was previously set as one of the previous eight Millennium Development Goals (MDGs) [2]. This goal reflects the global society's increased commitment to the health care.

The World Health Organization and the International Council of Nurses emphasized that nurses and nursing students should play crucial roles to meet the global demands, such as those for the global health area and the sustainable development goals [3-4]. Global health issues should be applied to undergraduate nursing programs to cultivate the students' global health competency necessary to be successful in global society later in their careers.

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Corresponding Author: healthinall@gmail.com

Tel:+82-62-940-5554, Fax: +82-62-940-5078

Author's affiliation

Assistant Professor, Dept. of Nursing, Honam Univ., Korea

Nevertheless, only a few nursing colleges are systematically implementing global health training programs now, and most of nursing colleges' education to cultivate global health competency is replaced by academic seminars or classroom teaching in South Korea [5]. Opportunities for students to participate in student/faculty overseas exchange programs are very cost prohibitive and rare [6-8]. However, cross-cultural learning opportunities in global health environments are important in increasing students' cultural competencies and knowledge of health problems and health care systems in culturally, economically, and politically diverse environments; moreover, nursing students prefer real-life learning experiences, beyond the books and classrooms, to improve their knowledge and competency [9-10].

In South Korea, several studies involving increasing nursing students' global health capacity were conducted only in the late 2000s [5, 11, 12]. These studies mainly focused on evaluating overall nursing education programs, while only an extremely small number of studies evaluated programs in global health environments [5, 11, 12].

In the globalization trend, global citizenship is an essential competency necessary to solve the social problems that will occur in diverse forms [13-15]. Although many universities are making an effort to improve the perception of global citizenship [7, 16], the citizenship taught in school does not break out of existing concepts, and related studies are insufficient [14, 17].

Cultural competency is inevitably required for nurses to meet diverse demands of patients [18-20], and opportunities for related experience and learning should be provided to improve nurses' cultural competency [14, 21]. Previous studies measuring the effects of overseas training programs have utilized individual and group interviews with students as well as students' reflection journals to derive the concept of cultural competency [12, 18, 22].

The purpose of this study also was to evaluate the effects and meanings of a global health training program on nursing students' global citizenship and cultural competencies. The specific aims of this study as follows; First, the effects of the global health training program on nursing students' global citizenship and multicultural competencies are identified. Second, through analysis of reflection journals written during the training period, the meaning of participation experience on global health training program are derived. This study will be used to evaluate the adequacy of the global health training program and to argue for its continuous operation.

2. RESEARCH METHODS

2.1 Research Design and Participants

This study was a quasi-experimental study with a single group pre-posttest design to evaluate the effects and meanings of global health training program.

Participants were recruited total 36 nursing students from 11 universities in South Korea. Of the recruited participants, three who did not finish questionnaire were excluded, and a total of 33 participants were used as study subjects. Given the sample size, the medium effect size of 0.50, a significance level of .05, and power of test of .90, the number of observations necessary for a paired sample t-test is 28 observations. The sample in the present study satisfied the number of observations necessary for statistical validity. Quantitative analysis was employed using the G*Power 3.1 program.

2.2 Ethical Consideration

This study was approved by the Institutional Bioethics Committee at C University. The purpose of the study, the method and procedure, the confidentiality and anonymity of the data were explained to participants. Written consent forms, which stated that participants could withdraw their participation at any time during the study at their will, were distributed to the participants to receive their voluntary agreement to participate in the study. Subjects were provided with an opportunity to reflect on themselves before and after the program and to

organize the meaning and experience of their participation in the program. No direct monetary reward was provided to the participants.

2.3 Measures

The global citizenship measurement tool developed by Chi Eun-rim [17] was used in this study. This tool consisted of a total of 25 questions comprising six questions regarding global community concept, six questions regarding multinationalism, nine questions regarding citizenship, and four questions regarding national identity. All the questions were measured using Likert 5-point scales. Higher scores mean higher levels of global community concept, multinationalism, citizenship, and national identity. Regarding the tool's reliability at the time of development, Cronbach's α values were measured as follows: global community concept .834, multinationalism .879, citizenship .870, and national identity .803, with reliability values measured as .859, .932, .817, and .686, respectively.

The nursing students' cultural competency measurement tool developed by Han Seok-yeong [23] was used to measure the cultural competencies of nursing students. This tool consists of nine questions regarding cultural knowledge, six questions regarding cultural skills, four questions regarding cultural experience, four questions regarding cultural awareness, and four questions regarding cultural sensitivity. The questions were measured using 5-point scales, where high scores mean high levels of knowledge, skills, experience, awareness, and sensitivity. At the time of tool development, the Cronbach's α values were measured as follows: Knowledge .91, Technology .89, Experience .84, Awareness .78, and Sensitivity .76, with reliability values measured as .937, .932, .604, .918, and .884, respectively.

2.4 Composition and procedure of a global health training program

This global health training program consisted of three parts; 2 days Preliminary workshop, 10 days Overseas field training, one day Evaluation workshop. The whole program progressed over approximately one month from December 27, 2016 to February 3, 2017. The Preliminary and evaluation workshop were conducted in South Korea, overseas training was conducted in vulnerable areas of Philippines.

The domestic preliminary workshop held for 2 days from December 27 to 28, 2016. And at the beginning of the workshop, participants were requested to answer to the Preliminary questionnaire by online. During the workshop, special lectures related to global health and ODA were given, teams were organized, and roles were divided for group activities at Philippines.

The field training program was implemented for 11 days from January 8 to 18, 2017 in Philippines, and the program was composed of visits to global health related organizations (WHO, KOICA, Kor-Phil Hospital, Batangas State University), community activities for health promotion (such as health education and campaigns). During the field training in Philippines, after the daily work was finished, all participants attended for reflection program each day, and wrote journals every day about their activities and self-reflections.

On February 3, 2017, two weeks after completing the overseas training, The evaluation workshop took place in domestic. At the evaluation workshop, all participants presented and shared experience of their entire activity. After workshop, an ex post evaluation questionnaire was completed.

2.5 Data Analysis

The data in the present study were analyzed using the SPSS/WIN 22.0 program. The statistical analysis method for verification of the research hypotheses is as follows;

General characteristics of the participants were analyzed as frequencies and rates. Paired t-tests were used to test differences in global citizenship and cultural competencies before and after the program. And the contents of reflection journals were analyzed using the inductive content analysis method for the thematic content analysis.

3. RESULTS

3.1 Characteristics of Participants

The general characteristics of the study subjects are shown in Table 1. The mean age of the 33 total participants was 21.06 years (SD=1.27), and most of the participants were female (93.9%). Third grade students comprised the largest proportion of the group at 21 subjects (63.6%). Roughly one third of the students had previous experience in taking multicultural health care related subjects, and roughly two thirds of the students had experience in taking global health related subjects. Most students reported that they were either “not fluent” or “moderately” fluent in English (Table 1).

3.2 Comparison of Pre and Post test Global Citizenship and Cultural Competencies

On reviewing the differences in study subjects’ global citizenship and cultural competencies before and after their program participation, the average score of global citizenship after participation in the program was 4.41 points (SD=0.42), which was not statistically significantly different from the average score before participation, which was 4.29 points (SD=0.42) ($t=-1.696$, $p=.100$). Among the four sub areas, identity consciousness was the only item that showed statistically significant increases ($p=.003$). The average score of cultural competencies after participation in the program was 4.16 points (SD=0.62), which was significantly higher compared to the average score before participation, which was 3.59 points (SD=0.56) ($p<.001$). Among the five sub areas, three items, except for cultural awareness ($p=.486$) and cultural sensitivity ($p=.530$), showed statistically significant increases in the average scores after participation in the program compared to before participation ($p<.001$) (Table 2).

3.3 Content Analysis of Participants’ Reflection Journals

Participants’ reflection journals were written for 10 days during overseas training periods in the Philippines. As a result of their analysis, the meanings of the experiences of participating in a global health training program were classified into five themes; ‘improvement of global health leadership’, ‘experience of barriers in reality’, ‘improvement of nursing professional value’, ‘inspiration of a perspective on health equity’, and ‘internal growth’. The sub themes of each theme and major statements were as follows (Table 3).

4. DISCUSSION

The students who participated in the global health training program in this study did not show significant differences in global citizenship after participation in the program; however, their cultural competency improved. They had the opportunity to reflect on the improvement of global health leadership, the value of professional nursing, the perspective of health equity, and experienced barriers and internal growth. The study found that only 39.4% and 57.6% had experiences in cultural health care related subjects and global health related subjects, respectively. This is consistent with the results of previous studies [5, 22, 24] indicating that domestic educational programs contain insufficient contents regarding the reinforcement of global competency. Moreover, in the health environment, there is expected to be a continued rise in demand for nurses with high cultural competency due to the age of globalization [9, 18, 25]. In accordance with this demand, many previous studies [9, 16, 26] emphasized that teachers should be equipped with cultural-international competency related knowledge, and such competencies should be integrated through continuous educational programs. However, not only is there a current lack of participatory learning opportunities for nursing students, classroom lectures also seem to be insufficient to meet the demands of the times.

The participants in this study showed a lack of confidence in their English ability; one hundred percent and 93.9% of respondents reported that their English speaking ability and listening ability, respectively, was below average. Analysis of the participants’ reflection journals showed a sense of frustration and regret about language barriers, and the students expressed a need to improve their English ability. This result is consistent

with the results of previous studies [5, 12, 22]. Language is an important element that must be overcome by nurses in this age of globalization [6], and the improvement of practical language ability should be emphasized further in nursing subjects hereafter.

After participation in the program, the average global citizenship score did not show significant difference compared to before the program except for the item, identity. This result was contrary to the view that overseas practical training experience would increase nursing students' self-awareness and awareness of others, so that their global citizenship competencies are improved [7, 8, 12, 27]. This can be attributed to the fact that the program was a short-term, and the duration was not sufficiently long to expect overall improvement of global citizenship. This presents an opportunity for future studies to extend the content and duration of the program.

The average cultural competency mean score showed a significant increase after participation in the program. This result is similar to previous studies, in which overseas training programs and experiential learning were implemented, and the program's effects were evaluated [10, 13, 21]. This result further supports that the frequency of students' exposure to diverse cultural environments is proportional to the students' cultural competency.

The meanings derived through the analysis of the participating students' reflection journals were shown to be similar to previous studies' results. In a study of 10 US nursing students' reflection journals written during a two week overseas training program, researchers found a total of five themes, and among them were the awareness of language ability, frustration at the limitations in problem solving, and improvement of cultural awareness [28], which are similar to the present study's results. A review of other studies [5,12, 22] show that the development of global health competency, preparation as a global leader, personal growth, cultural competency, and experience of obstructive factors are important concepts similar to the results of the present study.

5. LIMITATIONS AND DIRECTIONS OF FURTHER RESEARCH

This study has the following limitations to be improved in subsequent studies.

First, the present study has no control group. It is a study with a single group pre-posttest design, and thus has a limitation in the test of causal relationships. Second, for more in-depth analysis of qualitative data, it is recommended to combine reflection journal analysis and in-depth interviews in future studies. Third, studies to develop diverse global health programs to compare and analyze the effects are suggested. Fourth, this study's program was of a relatively short duration and implemented only one time.

Future studies may benefit from testing programs that are systematically applied for a longer duration, so that global health competency can be adequately cultivated and subsequently measured.

Table 1. Characteristics of Participants (N=33)

Characteristics	Categories	N (%)
Age(year)	M±SD = 21.06±1.27 (range 19~24)	
Gender	Male	2 (6.1)
	Female	31 (93.9)
School grade	1 st year	4 (12.1)
	2 nd year	8 (24.2)
	3 rd year	21 (63.6)
	4 th year	0 (0.0)

Experience of taking a class related on multicultural health nursing	Yes	13 (39.4)
	No	20 (60.6)
Experience of taking a class related on global health	Yes	19 (57.6)
	No	14 (42.4)
English speaking ability	Not fluent	19 (57.3)
	Moderate	14 (42.4)
	Fluent	0 (0.0)
English listening ability	Not fluent	14 (42.4)
	Moderate	17 (51.5)
	Fluent	2 (6.1)

Table 2. Comparison of Pre-Posttest Global Citizenship and Multicultural Nursing Competency (N=33)

Variables		Pretest M±SD	Posttest M±SD	t	P
Global Citizenship	Sub total	4.29±.42	4.41±.42	-1.696	.100
	Global Community Concept	4.21±.49	4.38±.53	-1.805	.081
	Multinationalism	4.35±.64	4.37±.55	-.272	.788
	General Citizenship	4.50±.41	4.52±.44	-.288	.776
	National Identity	3.87±.56	4.23±.72	-3.178	.003
Cultural Competency	Sub total	3.59±.56	4.16±.62	-5.378	<.001
	Cultural Knowledge	3.06±.76	4.01±.76	-7.672	<.001
	Cultural Skills	3.23±.74	4.07±.66	-6.098	<.001
	Cultural Experience	3.57±.66	4.15±.69	-3.972	<.001
	Cultural Awareness	4.42±.69	4.32±.61	.705	.486
	Cultural Sensitivity	4.53±.60	4.46±.58	.635	.530

Table 3. Content Analysis of Participants' Reflection Journals (N=33)

Themes	Sub-themes	Statements(n)	N (%)
Improvement of global health leadership	Expansion of the area as an expert in nursing	I felt that I was only a frog in the well and realized that there were diverse fields in which I could work as a nurse in global society through this opportunity (12). With this experience, I have come to think about my role as a nurse in the future (11).	33 (21.9)
	Realization of the attitude to be equipped as a future nursing leader	I realized that my attitude toward consideration for others and not causing damage to others are important (5). Through collaborative activities, I realized that activeness, accountability, and leading by example are important (6).	11 (7.3)
	Growth through interactions	The positive attitude of the Filipinos seems to be a point we should rather learn (11). Through cooperation and interaction, I was able to achieve greater performance than when working alone (4).	15 (9.9)

Experience of barriers in reality	Despair about the lack of resources and reality	I was shocked to find out that 2~3 persons were using one bed together because of the shortage of beds at hospitals (10). I felt frustrated at the fact that the country had neglected the health of its people (6).	16 (10.6)
	Sense of guilt about not being able to help	I felt frustrated at the fact that I could not solve the problem when I saw children drinking and playing in dirty places because the service water and sewage facilities were not properly installed (3). I felt guilty for my situation where I could only give the Filipinos fragmental help (4).	7 (4.6)
	Language barrier	I regret for my poor English ability because I would have exchanged with Batangas State University students more actively if I were more fluent in English (9). I was stressed due to my poor English ability (5).	14 (9.3)
Improvement of nursing professional value	Awareness of diverse cultures in health environments	I was able to learn the problems and the present situation of the Philippine health system by comparing the health system with that of other countries (7). I can understand differences in health management methods coming from cultural differences (8).	15 (9.9)
	Recognition of the importance of sustainability	I realized that the concept of sustainability is important in the global environment (2). We must listen to see what the beneficiaries really want rather than what we can give (2).	4 (2.6)
Inspiration of a perspective on health equity	Recognition of the relationship between health care issues and human rights guarantees	Health is a prerequisite for which everyone should be naturally guaranteed beyond race and culture (6).	6 (4.0)
	Recognition of health equity issues in the gap between the rich and the poor	In the same Philippines, resorts and slums were felt to be extremes (14).	14 (9.3)
Internal growth	Looking back the past	With this experience, I have grown a lot internally (10).	10 (6.6)
	Thanks for what I have now	I thought always receiving something from my parents as being natural because I was accustomed to it, but I realized how grateful it is when I compared me with Filipino students (6).	6 (4.0)
5	12	Total	151 (100.0)

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