

Learning Effects of International Nursing-Related Subjects on Students : A Mixed Methods Research

Hiroko YATSU^{1,2}, Michie NAGAYOSHI¹, Itsuko YAMAMOTO¹, Ayako TAKATSUKA¹, and Mitsuru UCHIDA¹

¹The Jikei University School of Nursing

²Faculty of Nursing, Miyagi University

ABSTRACT

Background : This study aimed to evaluate the current state of education in a school of nursing to provide an international perspective and to clarify suggestions for future education.

Methods : The International Education Survey (IES) and an interview survey were conducted to clarify the long-term effect of international nursing education on students. The survey participants were 240 students of the School of Nursing at a university in Tokyo.

Results : The IES showed that the effect of international nursing education tended to be significantly greater in the students' 2nd year of school and significantly weaker in the second-semester of the 4th year. On the other hand, the students in multiple elective courses related to international nursing showed significantly higher scores in the subscales of "Professional Nursing Students' Role," "Personal Development," and "International Dimension." Students who were interviewed explained their desire to improve their language skills and to deepen their understanding of Japan and other countries.

Conclusion : This study clearly shows that a curriculum that fosters the international perspective of nursing students and attempts to sustain and improve the interest of students should be considered.

(Jikeikai Med J 2022 ; 69 : 65-74)

Keywords : International Education Survey, international nursing education, learning evaluation, triangulation

BACKGROUND

In a rapidly globalizing society, becoming increasingly important in nursing education is the development of nursing practice skills based on such international perspectives as international cooperation and dealing with foreign patients¹. Several universities worldwide have adopted studying abroad as an important aspect of undergraduate nursing education, and evaluating the outcome of their curricula has become extremely important^{2,3}.

The experiences of living and studying abroad are thought to promote the development of effective cross-cultural

communication and intercultural competency by having students learn about people of various cultures and acquiring specialized knowledge. The International Education Survey (IES) was developed by Cecelia Zorn in 1996 to measure the long-term effects on undergraduate and graduate nursing students of experiencing international education⁴. This study that used the IES to clarify the effects of immersion experience education on nurses and nursing students found that such education has a significant effect on their professional, personal, knowledge development, and, most influentially, on their international perspective.

The School of Nursing of University A, a private uni-

Received : November 11, 2022 / Accepted : January 13, 2023

谷津裕子, 永吉美智枝, 山本伊都子, 高塚綾子, 内田 満

Mailing address : Hiroko YATSU, Faculty of Nursing, Miyagi University, 1-1, Gakuen, Taiwa-cho, Kurokawa-gun, Miyagi, 981-3298, Japan

E-mail : yatsuh@myu.ac.jp

versity in Tokyo, Japan, developed a curriculum related to international nursing in 2017 with the aim of fostering nursing professionals from an international perspective and has applied the program to students of the 2nd to 4th years. The students are compulsorily required to study international nursing theory in the first semester of the 2nd year and then to receive trainings at the National University of Singapore and Portland State University (in Portland, Oregon, USA) as elective courses in the second semesters of the 2nd and 3rd years. In the 4th year, 2 applicants can choose nursing practice at King's College of London in the United Kingdom, and over the 4 years they are expected to accumulate knowledge and methodologies related to international nursing and the experience of nursing practice.

In the present study, using IES, we evaluated the learning effect of education aimed at fostering nurses at the School of Nursing of University A from an "international perspective." In addition to confirming the results of the IES and deeply understanding the learning experience of students, we conducted an interview survey with nursing students who had participated in overseas training and practical training. Through these surveys, we hope to identify the future direction of international nursing education.

METHODS

1. Research design

A triangulation mixed research method design was used to evaluate international nursing education in the School of Nursing of a university in Tokyo. In this design, different but complementary data are collected for the same topic⁵. The IES was used to obtain statistical and quantitative results of the performance of students who received international nursing education at the university. In addition, an interview survey was conducted simultaneously to collect quantitative data. To explore and explain the results of the IES, we examined the learning experiences of two students who participated in international nursing-related training and practical training. Both quantitative data and qualitative data were collected to take an advantage of the strengths of both forms of research to confirm the results of the IES and to gain a deeper understanding of the students' learning experience. We referred to the Good Reporting of a Mixed Methods Study to improve the quality of this article⁶.

2. IES

We used the IES to clarify the effect of international nursing education on students. The IES was developed in the United States and is used internationally for long-term evaluation of international education programs in universities. It is based on the school evaluation model and has 29 items (professional nursing role, 5 questions ; international dimension, 7 questions ; personal development, 13 questions ; intellectual development, 4 questions). The IES is a self-administered questionnaire with a 7-point Likert scale (with scores from 1 [not at all] to 7 [very much]). The higher the score, the more they were affected by education. The reliability and validity of the IES scale have been verified in the previous study⁴. Owing to the characteristics of the IES scale, which can be used by nursing students in various countries, it was translated from English to Japanese and then, to confirm the appropriateness of translation into Japanese, was back-translated to English by a native person whose mother tongue was English. To evaluate the effect of the accumulation of learning in the 2nd to 4th years of Japanese nursing students, expressions were changed in the following ways : "as a professional nurse" to "as a nursing student," "professional career" to "nursing career," "In the United States" to "In Japan," "since graduation" to "after graduation," and "English" to "Japanese." Permission to use this version of the IES was obtained from Zorn (July 8, 2020, in a private communication from her to the first author of this study).

All participants of this study were 2nd- to 4th-year students who took international nursing-related courses in the 2017 revised curriculum in the university's school of nursing. We asked 240 students who met the selection criteria to participate in this study (Fig. 1). Of the 113 students (47.08%) who responded to the questionnaire, 2 were excluded for having made mistakes in responses in the year of admission and 111 (46.25%) were included in the analysis. Four groups of respondents were analyzed : 2nd year, 3rd year, the first semester of the 4th year, and the second semester of the 4th year. The survey was conducted from November 2020 through May 2021.

The IES questionnaire was an anonymous online survey, and the consent form describing the purpose, method, and ethical considerations of this survey and the URL and email address for the survey were sent to participants via their university email addresses. The participants were told

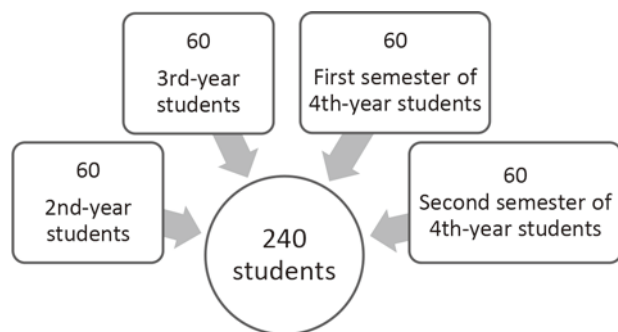


Fig. 1. Number of participants of this study

that the time required for answering the questionnaire was approximately 20 minutes and were provided a grace period of approximately 2 weeks to answer. Their response to the questionnaire was an indication of their agreeing to participate.

Data on basic attributes were analyzed with descriptive statistics. To analyze the IES scores, the average score (standard deviation [SD]) for each subscale (Professional Nursing Students' Role ; International Dimension ; Personal Development ; Intellectual Development) and the average score (SD) for each item were calculated with reference to previous studies⁷⁻⁹. After the normality of the mean score was confirmed, a *t*-test was performed to compare the 2 groups, and analysis of variance was performed to compare the IES subscale scores by student year, and multiple comparisons were performed with Tukey's method or the Games-Howell method. The software program used for statistical analysis was IBM SPSS Statistics, version 26 (IBM Corp., Armonk, NY, USA).

Interview survey methods

To clarify the details of the learning experience of continuous learning through international nursing training and practical training, we conducted an interview survey with students who had participated in such training multiple times. We requested 3 students who met the selection criteria to cooperate in this research and analyzed the data of 2 students who agreed to participate. The interviews were conducted from December 2020 through March 2021.

During the interviews, we asked about (1) attributes (year of admission, training/practice), (2) motivation for taking training/practice and learning experience, and (3) experience through repeated learning in class, training, and practical training. The interview content was recorded with

the participants' permission. In the data analysis, after interview content was transcribed verbatim, the data were segmented and coded for each semantic cluster, and then categorized by focusing on the similarities and differences of the codes.

4. Ethical considerations

Before being performed, this study was reviewed and approved by the Ethics Committee of The Jikei University School of Medicine for Biomedical Research 32-244 (10325). The researchers explained and assured the survey participants of the following : participation in the research was voluntary, nonparticipation or withdrawal from the research would not adversely affect the relationship with the researcher, and the provided data would never be used for grades or evaluation. The IES was conducted anonymously, and participants were guaranteed that they would not be personally identifiable. Because participants in the interview survey could be easily identified, all the obtained data were symbolized while the interview content was being transcribed.

RESULTS

1. IES

1-1. Outline of research participants

Table 1 shows an outline of research participants of the study. Of the 114 responses of students to the questionnaire, 111 (97.4%) were valid. The year of school for the respondents was the 2nd year for 27, the 3rd year for 21, the first half of the 4th year for 30, and the second half of the 4th year for 33. All students had studied international nursing theory in the 2nd year. Twenty-six students took elective courses on international nursing, accounting for 23.4% of all respondents.

Of the 111 students, 5 (4.5%) had lived abroad before entering the university, and 0 to 2 students of each year had studied abroad. A total of 18 students (16.22%) had studied abroad or participated in volunteer activities and numbered 3 to 6 students each year. The time for going abroad was during junior high school for 7 students and during high school for 12 students ; this information was not provided by 3 students.

The length of time spent overseas was 1 week for 1 student, 2 weeks for 8 students, 3 weeks for 7 students,

Table 1. Experiences of students

Experience	All students		2nd-year students		3rd-year students		First semester of 4th-year students		Second semester of 4th-year students	
	<i>n</i>	(%)	<i>n</i>	(%)	<i>n</i>	(%)	<i>n</i>	(%)	<i>n</i>	(%)
International nursing-related curriculum										
International Nursing Theory in 2nd year	111	(100.00)	27	(100.00)	21	(100.00)	30	(100.00)	33	(100.00)
International nursing practice in 2nd year	21	(18.92)	NA		NA		11	(36.67)	10	(30.30)
International nursing practice I in 3rd year	3	(2.70)	NA		3	(14.29)	NA		NA	
Training at National University of Singapore in 2nd year	3	(2.70)	NA		NA		1	(3.33)	2	(6.06)
Nursing practice at King's College of London in 4th year	1	(0.90)	NA		NA		0	(0.00)	1	(3.03)
Elective subjects of international nursing	26	(23.42)	NA		3	(14.29)	11	(36.67)	12	(36.36)
Spoke English outside class	28	(25.23)	10	(37.04)	2	(9.52)	10	(33.33)	6	(18.18)
Lived abroad before entering university	5	(4.50)	1	(3.70)	0		2	(6.67)	2	(6.06)
Studied abroad or volunteered or both	18	(16.22)	3	(11.11)	4	(19.05)	6	(20.0)	5	(15.15)

and 4 weeks for 4 students. Twelve students participated in the school-sponsored program, and 3 students individually participated in extracurricular program. Of the 18 students who studied abroad or volunteered in high school, 13 (72.2%) learned English and other students were studying abroad for the purpose of exchange with sister schools and cross-cultural exchange.

1-2. Effect of experience with international education

An analysis of the effects of learning experience showed that the IES subscales tended to have higher scores in the 2nd year and lower scores in the second half of the 4th year (Table 2). The scores of the subscales "Professional Nursing Students' Role" and "Intellectual Development" differed significantly between the second half of the 4th year and all other years ($p < .05$) but did not differ significantly among the 2nd, 3rd, and 4th years. However, the "International Dimension" subscale did not differ significantly

among university years.

Comparing the 3rd- and the 4th-year students who studied international nursing theory, which is a compulsory subject for 2nd-year students, and the 3rd- and the 4th-year students who took the international nursing theory and the elective courses related to international nursing, the average score of the elective courses was significantly higher in the following 3 subscales: "Professional Nursing Students' Role" (4.90, SD = 1.12, $p < .05$), "Personal Development" (4.50, SD = .95, $p < .05$), and "International Dimension" (5.24, SD = .67, $p < .001$) (Table 3).

Table 4 shows results of comparisons of the average scores of question items in each IES subscales. The "Professional Nursing Students' Role" subscale showed that the accumulation of courses related to international nursing tended to raise awareness of nursing student's practice and career as a nursing professional ($p < .05$). The "Personal

Table 2. Comparison of International Educational Survey scores among years

	All students (<i>n</i> = 111)	2nd-year students (<i>n</i> = 27)	3rd-year students (<i>n</i> = 21)	First semester of 4th-year students (<i>n</i> = 30)	Second semester of 4th-year students (<i>n</i> = 33)	F score	<i>p</i> value
International Educational Survey subscales	<i>Mean</i> (<i>SD</i>)	<i>Mean</i> (<i>SD</i>)	<i>Mean</i> (<i>SD</i>)	<i>Mean</i> (<i>SD</i>)	<i>Mean</i> (<i>SD</i>)		
Professional Nursing Students' Role	4.46 (1.15)	4.83 (1.13)	4.72 (.56)	4.67 (1.04)	3.81 (1.30)	5.86 (3,107)	< .001
Personal Development	4.13 (1.00)	4.57 (1.05)	4.33 (.57)	4.16 (.92)	3.63 (1.05)	5.33 (3,107)	< .01
Intellectual Development	4.40 (1.20)	4.93 (1.01)	4.62 (.71)	4.62 (1.03)	3.64 (1.41)	7.96 (3,107)	< .001
International Dimension	4.76 (.92)	5.03 (1.05)	4.86 (.49)	4.74 (.82)	4.48 (1.04)	1.97 (3,107)	

SD : standard deviation

One-way analysis of variance, "Professional Nursing Students' Role" and "Intellectual Development" : Games-Howell ; "Personal Development" and "International Dimension" : Tukey

Table 3. Comparison of International Educational Survey scores between students learned international compulsory subject only and students learned as well as elective subjects

(N = 111)

	All students (N = 111)	Students in compulsory subject (n = 85)	Students in elective subjects (n = 26)	p value
International Educational Survey subscales	<i>Mean (SD)</i>	<i>Mean (SD)</i>	<i>Mean (SD)</i>	
Professional Nursing Students' Role	4.46 (1.15)	4.33 (1.13)	4.90 (1.12)	< .05
Personal Development	4.13 (1.00)	4.02 (.99)	4.50 (.95)	< .05
Intellectual Development	4.40 (1.20)	4.34 (1.24)	4.60 (1.08)	
International Dimension	4.76 (.92)	4.61 (.93)	5.24 (.67)	< .01

SD : standard deviation

Compulsory subject : International Nursing Theory, 2nd year

Elective courses : International nursing practice I, 2nd year ; International nursing practice II, 3rd year

Training at National University of Singapore, 2nd year ; Nursing practice at King's College of London, 4th year

"Personal Development" and "International Dimension" : *t*-test

Development" subscale showed that students who took elective courses wanted to encourage other students to participate in international nursing education ($p < .01$) and contribute to the degree of self-confidence of the students themselves ($p < .05$). Regarding the "Intellectual Development" subscale, the ability to read and write foreign languages did not differ on the basis of accumulating elective courses, but the motivation and ability to learn a foreign language tended to greatly increase. The "International Dimension" subscale showed that students who had taken international nursing-related courses recognized that they had enhanced their understanding of Japanese culture and of foreign nursing and medical care ($p < .001$). International nursing education has also tended to affect students' discussions with others on international and cross-cultural issues and helped with the international or cross-cultural aspects of the nursing practice ($p < .01$).

2. Interview Survey

Interviews were conducted with 2 students. Student A participated in the National University of Singapore Nursing Training Program in the 2nd year and a Comprehensive Practical Training Overseas course in the 4th year. Student B was scheduled to participate in the National University of Singapore Nursing Training Program in the 2nd year, but the program was cancelled due to the COVID-19 pandemic. In the 3rd year, Student B participated in a domestic international nursing practice program.

From the data of the 2 students, we extracted 55 codes, 32 subcategories, and 11 categories and derived 4 themes : "Motivation for learning international nursing,"

"Learning gained through international nursing courses," "Effects of suspension of overseas travel," and "Requests for international nursing courses" (Table 5).

The theme "Learning gained through international nursing courses" reflected the purpose of this survey. This theme consisted of 3 categories : "Enjoyment of learning English and desire to improve language skills," "Inspiration for the attitude they should have as a learner," and "Understanding of one's own country and other countries deepened through exposure to different cultures."

2-1. Enjoyment of learning English and desire to improve language skills

For student A, participating in a 5-day training program at the National University of Singapore made communicating in English easier. Through live interaction with local people, the student communicated in English and gained confidence and a sense of joy.

"It was the first time that I could communicate. When I had a conversation that I understood, it would boost my self-confidence, and I also felt happy."

Student B wanted to go abroad even after the trip was cancelled due to COVID-19 and, therefore, thought that English conversation should be continued, which sustained her motivation to improve her English ability.

2-2. Inspiration for the attitude they should have as a learner

Student A felt that the learning styles of college students in Singapore were advanced, and this experience changed her way of learning.

"When I went to the library, I was quite impressed by the fact that many students studied with tablets or computers. When I think that I can deepen my learning without be-

Table 4. Comparison of International Educational Survey subscales between students learned only through an international compulsory courses and students who also learned through elective courses

	(N=111)		
	Students in compulsory subject (n = 85)	Students in elective subjects (n = 26)	p value
“Professional Nursing Students’ Role”			
How much has your experience of international education as a student...			
1. influenced your practice as a nursing student?	4.05 (1.42)	4.81 (1.36)	< .05
2. associated with your nursing career?	4.05 (1.54)	4.73 (1.43)	< .05
3. resulted in greater efficacy as a nursing student?	4.69 (1.13)	5.19 (1.10)	
4. improved your efficiency as a nursing student?	4.20 (1.23)	4.73 (1.28)	
5. influenced your progress as a nursing student?	4.65 (1.43)	5.04 (1.18)	
“Personal Development”			
How much has your experience of international education as a student...			
11. influenced your interaction with people from other cultures?	4.27 (1.52)	4.77 (1.34)	
12. influenced your overseas travel/education plans?	4.01 (1.55)	4.77 (1.34)	< .05
14. enhanced the potential to engage in nursing practice abroad?	4.31 (1.24)	4.54 (1.56)	
15. influenced your nursing practice?	4.33 (1.15)	4.54 (1.21)	
16. made you want to encourage all university students to take part in international education?	4.45 (1.06)	5.23 (1.03)	< .01
17. reassess your outlook on life in Japan?	4.48 (1.13)	4.81 (1.23)	
18. influenced the decision of your family members (e.g., a partner or parents)?	3.34 (1.44)	3.88 (1.48)	
19. influenced your relationships (with friends, family, or neighbors)?	3.46 (1.34)	3.92 (1.47)	
20. influenced your career decision after graduation?	3.84 (1.46)	4.08 (1.67)	
22. promoted an intercultural dimension in your volunteer activities?	3.99 (1.45)	4.50 (1.39)	
23. promoted an international dimension in your social/religious activities?	3.95 (1.41)	4.35 (1.50)	
24. promoted an intercultural dimension in your social/religious activities?	3.95 (1.45)	4.42 (1.21)	
25. contributed to your degree of self-confidence?	3.92 (1.42)	4.69 (1.29)	< .05
“Intellectual Development”			
How much has your experience of international education as a student...			
26. influenced your choice of literature to read?	4.13 (1.38)	4.23 (1.31)	
27. influenced your literacy skills of any languages other than Japanese?	4.24 (1.45)	4.46 (1.30)	
28. influenced your intellectual development?	4.58 (1.25)	4.50 (1.30)	
29. increased your motivation/ability to learn foreign languages after returning to Japan?	4.42 (1.43)	5.19 (1.36)	< .05
“International Dimension”			
How much has your experience of international education as a student...			
6. navigated and influenced how you evaluate global issues?	4.88 (1.16)	5.15 (1.12)	
7. improved your understanding of Japanese culture?	4.73 (1.21)	5.65 (0.80)	< .001
8. improved your understanding of Japanese politics?	4.42 (1.30)	4.73 (1.12)	
9. influenced your understanding of nursing/medical care in other countries?	5.04 (1.20)	6.04 (0.92)	< .001
10. influenced discussion with others about international/intercultural issues?	4.75 (1.22)	5.50 (0.95)	< .01
13. promoted an international/intercultural dimension in your business activities?	4.52 (1.23)	5.27 (1.08)	< .01
21. promoted an international dimension in your volunteer activities?	3.92 (1.45)	4.31 (1.26)	

SD : standard deviation,

Compulsory subject : International Nursing Theory, 2nd year

Elective courses : International nursing practice I, 2nd year ; International nursing practice II, 3rd year

Training at National University of Singapore, 2nd grade ; Nursing practice at King’s College of London, 4th year

ing constrained by space and time, I feel that I should certainly devise a way of studying by myself.”

2-3. *Understanding of one’s own country and other countries deepened through exposure to different cultures*

During her stay in Singapore, Student A was inspired

by a hijab-wearing friend (a local student) and felt the importance of experiencing different cultures through local exchanges and understanding the people who live there.

“I think that being able to notice one’s own behavior is the best way to get involved with native people. I think it

Table 5. List of themes, categories, and subcategories

Themes	Categories	Subcategories
Motivation for learning international nursing	Experience before entering university	Experiences of heightened sensitivity to language
		A family environment where English was close at hand
		Education received in school
	Reasons for taking international nursing courses	My vision with a focus on globalization
		Willingness to learn international nursing
		Curious nature
		Timing
Learning gained through international nursing courses	Enjoyment of learning English and desire to improve language skills	Family understanding
		The joy and confidence gained from using native English locally
		Lowered English language barrier by interviews with simulated foreign patients
	Inspiration for the attitude they should have as a learner	Willingness to improve language skills
		Student-centered class
		Differences in attitudes toward learning between local students and myself
		Learning style with the latest technology
Understanding of one's own country and other countries deepened through exposure to different cultures	The importance of understanding different cultures and the people who live there, as felt through community exchange	
	A deeper understanding of Japan by being objective	
	Greater understanding of diversity	
Effects of suspension of overseas travel	Difficulties in continuing to learn English conversation	Interrupted preparation for English conversations
		Face-to-face English conversation better than online
		Not to feel necessary to learn English conversation
	Frustration that I cannot control	No choice but to imagine what I have learned at the desk so far
		Frustration of having to cancel the training
Requests for international nursing courses	Opportunity to hear about the teacher's experience	Feeling sorry for the parents who bear the financial burden
		International nursing experience of teachers
	Overseas training with a sufficient period of time	Teachers' episodes on English
		Longer training periods required to deepen the experience
		The importance of expanding own horizons that cannot be learned in the classroom
	Interaction through online systems	Practical training in clinics for foreigners
		Online calls with nursing students abroad
Tension to learn in real time		
Multiple times of practical lectures and exercises	Multiple opportunities to learn about nursing activities in developing countries	
	Multiple times of English objective structured clinical examinations	

was a big deal that from this training experience I was filled with information that I acquired through my eyes, ears, and skin in a short period.”

Student B did not go abroad but learned about different cultures through international nursing exercises and the internet. She learned about how to express pain and about differences in health consciousness in experience articles and academic papers and began to regard differences in nationality as a factor that makes up an individual's characteristics.

DISCUSSION

Among the participants of this study, the number of students who took international nursing-related courses in their 3rd and the 4th year decreased from approximately 36% in the 2 years before the COVID-19 pandemic to 14.29% during the pandemic. Globally, the pandemic has reportedly restricted study abroad and has had a great effect on international education¹⁰. As a result, international exchange programs have increasingly used the internet rather than on-site training. Previous studies have shown that overseas training during college has a significant positive effect^{7,11}. For students to learn about foreign cultures and nursing, schools of nursing should introduce internet training that allows students to stay in their own country and should resume international exchange.

In the present study the IES has clarified that there are 3 to 6 students in each year who had lived abroad or participated in overseas training. Various countries have been visited for study abroad and volunteer experiences, and 70% of the students studied languages while staying there for 2 to 4 weeks. We found that the IES score was highest for 2nd-year students and significantly lower for late 4th-year students. This finding suggests that the learning experience of international nursing theory, which is a compulsory subject in the first semester of the 2nd year, has a positive effect on students that weakens towards the second semester of the 4th year. A possible reason for this weakening effect is that later in the 4 year of nursing school, the number of electives in international nursing-related subjects and opportunities for international learning decrease. In the final years of nursing school, educational efforts should be made to increase and sustain students' interest in and motivation for learning international nursing. Examples of educational ef-

forts include the introduction of international nursing-related courses according to the readiness of students who have foreign language proficiency and the support of students' independent activities, such as English conversation clubs.

On the other hand, the IES scores for the subscales “Professional Nursing Students' Role,” “Personal Development,” and “International Dimension” were significantly higher for students who took elective courses in the 3rd and the 4th year. This finding suggests that the continuous learning in international nursing deepens the international perspective. As in previous studies (8, 9, 12), in the present study learning international nursing was found to have a significantly positive effect on one's practice as a nursing student. This finding suggests that the international nursing education of a School of Nursing has positive effect on students' career development.

The IES showed that the students' participation in the international nursing course increased their “Intellectual Development” score and their intellectual curiosity, which increased their motivation and ability to learn foreign languages. On the other hand, taking international courses did not affect students' ability to read and write languages other than Japanese. In a study by Zorn, the longer the period, i.e. 12 to 16 weeks, of overseas training, the greater the score for “Intellectual Development” was increased⁴. Therefore, the length of stay overseas is considered important in order to have a positive effect on intellectual development. Previous studies showing the effect of 2 weeks of training reported both a low-scoring tendency^{7,8} and a high-scoring tendency⁸ compared with other items. In the study that found a high-scoring tendency⁸, students were stayed in private homes during the training to deepen their interactions with their host families. These studies were aimed at students whose native language is English. For Japanese students whose native language is not English, further learning of English is indispensable for international exchange, and a direct exchange experience is important for them. Japanese students should be kept aware of the need to learn English by taking international nursing-related courses and having opportunities to improve English proficiency through communication with people who are not in their own country.

Interview surveys of the present study showed that students who participated more than once in international nursing education training, exercises, and practical training

have increased their enjoyment of learning English and their aspiration to improve their language skills by taking international nursing-related courses. In addition, they have been inspired by the independent learning attitudes of students studying at overseas universities and have had a valuable experience of deepening their understanding of their own country and other countries by immersing themselves in different cultures. The IES scores have shown that students who had taken elective courses related to international nursing in the 3rd and the 4th year deepened their international perspective in “Professional Nursing Students’ Role,” “Personal Development,” and “International Dimension” by learning more. The details of this learning content were clarified through an interview survey. The richness and depth of these learning experiences suggest the effectiveness of overseas training for students interested in international nursing.

The present research has made clear that the interest of students should be increased and maintained and that efforts should be made to accumulate learning and to consider a curriculum that fosters an international perspective for nursing students. As this study shows, even if all students take international nursing-related subjects in the first few years of nursing school, their interest in and motivation with regard to the international perspective will later decline. To foster an international perspective among more students, nursing schools should introduce compulsory courses related to international nursing according to students’ readiness and actively support the independent activities of students, such as forming English conversation clubs. Also important is conducting international exchanges with the internet instead of on-site training in preparation for a pandemic. We believe that a system, such as internet training, should be created to allow students to study foreign cultures and nursing in a realistic manner while staying in Japan and that international student exchanges should be continued.

LIMITATIONS

Because this study was performed at the school of nursing of a private university in Tokyo, the results are difficult to generalize to other parts of Japan and other countries and to national and public universities and other private universities. In the future, the number of participat-

ing universities should be increased and the learning effect of education aimed at fostering nurses from an international perspective should be evaluated with more generalized data.

CONCLUSION

This study investigated the learning effects of international nursing-related subjects and training conducted from 2018 to 2021 at a School of Nursing of University A in Tokyo. The influence of international nursing education tended to be significantly higher in the second year and significantly lower in the second semester of the fourth year. On the other hand, the students who took elective courses related to international nursing in the 3rd and the 4th years showed significantly higher scores in “Professional Nursing Students’ Role,” “Personal Development,” and “International Dimension.” The richness and depth of the learning experiences of the students who participated in the training, exercises, and practical training in international nursing education more than once suggested the effectiveness of the current education for students who were interested in international nursing.

This study clearly shows that a curriculum that fosters the international perspective of nursing students and attempts to sustain and improve the interest of students should be considered. In addition, it seemed important to have a system such as web training that allows students to learn about foreign cultures and nursing in a realistic manner while staying in Japan and to continue international student exchanges in preparation for a pandemic invasion.

ACKNOWLEDGEMENTS

We would like to thank the students and faculty members of the School of Nursing of University A for their cooperation in this research.

FUNDING

This study was funded by The Jikei University School of Medicine, Department of Nursing Research Fund.

Authors have no conflicts of interest.

REFERENCES

1. Investigative Committee on Nursing Human Resource Development at Universities. Formulation of Nursing Education Model Core Curriculum : Study Objectives Aimed at Acquisition of "Core Nursing Practical Ability in Bachelor's Degree Programs" (in Japanese). Tokyo : Ministry of Education, Culture, Sports, Science and Technology ; 2017. https://www.mext.go.jp/b_menu/shingi/chousa/koutou/078/gaiyou/_ics-Files/afieldfile/2017/10/31/1397885_1.pdf. [accessed 2022-10-18]
2. Dwyer MM, Peters CK. The Benefits of Study Abroad. IES Abroad News ; 2004. <https://www.iesabroad.org/news/benefits-study-abroad>. [accessed 2022-10-18]
3. Bolen MC. A guide to outcomes assessment in education abroad. Forum on Education Abroad ; 2014. <https://forumea.org/wp-content/uploads/2014/08/Outcomes-Assessment.pdf>. [accessed 2022-10-18]
4. Zorn CR. The long-term impact on nursing students of participating in international education. J Prof Nurs. 1996 ; 12 : 106-10.
5. Creswell JW, Plano Clark VL. Designing and conducting mixed methods research. London : Sage Publications ; 2007.
6. Emary PC, Stuber KJ, Mbuagbaw L, Oremus M, Nolet PS, Nash JV et al. Quality of reporting in chiropractic mixed methods research : a methodological review protocol. Chiropr Man Therap. 2021 ; 29 : 35.
7. DeDee LS, Stewart S. The effect of student participation in international study. J Prof Nurs. 2003 ; 19 : 237-42.
8. Curtin AJ, Martins DC, Schwartz-Barcott D. A mixed methods evaluation of an international service-learning program in the Dominican Republic. Public Health Nurs. 2015 ; 32 : 58-67.
9. Thompson K, Boore J, Deeny P. A comparison of an international experience for nursing students in developed and developing countries. Int J Nurs Stud. 2000 ; 37 : 481-92.
10. Dietrich AJ. Charting a path forward for education abroad research. Frontiers : The Interdisciplinary Journal of Study Abroad. 2020 ; 32(2) : 1-11.
11. Kelleher S. Perceived benefits of study abroad programs for nursing students : An integrative review. J Nurs Educ. 2013 ; 52 : 690-5.
12. Smith K, Curry K. Is it worth it? : Measuring the long-term effects of an international experience for nursing students in Ecuador. J Community Health Nurs. 2011 ; 28 : 14-22.