

Pharmacy Students' Awareness of and Interest in Pharmacy-Related International Educational/Study Abroad Programs

Jay H. Mashburn and Carolyn M. Brown

College of Pharmacy, The University of Texas at Austin, Austin TX 78712-1074

This study examined pharmacy students' interest in pharmacy-related international educational/study abroad programs. The objectives of this study were four-fold: (i) to establish the level of awareness/exposure of pharmacy students to international educational programs; (ii) to determine students' likelihood of participation; (iii) to identify students' perceived barriers/obstacles associated with international educational programs; and (iv) to explore relationships between students' likelihood of participation and students' demographic characteristics. Two hundred ninety-seven pharmacy students responded to a questionnaire administered to baccalaureate and Doctor of Pharmacy students. The majority of pharmacy students was not currently aware of pharmacy-related study abroad programs and was not interested in participating. Students would more likely participate in a program if it was fully funded, conducted in English, selected by the students from a list of choices and/or was equivalent to U.S. pharmacy clerkships regarding university credit. Pharmacy students' likelihood to participate in pharmacy-related international education differed based on ethnic background and multilingual abilities.

INTRODUCTION

The number of international students studying in the United States exceeds that of U.S. students studying in other countries(1). The ratio is four to one. In 1995-1996, nearly ninety thousand American students earned college credit while studying abroad. This was almost a six percent increase over the previous year. According to the international education literature, this increase in the number of students studying abroad continues to be a "decade-long" trend. However, the number of U.S. students studying abroad while still enrolled in U.S. colleges only represents one percent of the total enrollment in U.S. colleges and universities.

The majority of students who traveled abroad in 1995 to 1996 primarily studied in the areas of the social sciences and humanities, business, and foreign languages. Only two percent obtained an international experience through a health science study abroad program, despite the fact that global awareness is becoming increasingly important in many health professions. The small percentage of U.S. students studying abroad through a health science study abroad program may reflect U.S. students' lack of interest or access to health-related international educational programs. America's contribution to global healthcare may be hindered or threatened if institutions of higher learning do not provide future healthcare professionals with the necessary tools for living and/or working in a world of diverse cultures.

International Education Exchange

In 1988, the American Council on Education reported that more than 50 percent of U.S. colleges and universities showed increases in international courses taught on campus, in opportunities for students and faculty to study abroad and in hiring new faculty with international experience(2). Some countries do better than others in promoting programs which encourage student and faculty mobility, as well as in urging students to

learn and experience cultures, languages, and other worldly ideas(3,4). This increased attention on international education has resulted in a steady increase in the number of American students either studying abroad or enrolling in campus courses with an international focus. In an effort to strengthen college students' educational experiences, the health professions are now broadening their boundaries by developing their own specialized international educational programs. Medical, nursing, public health, pharmacy, and other health disciplines have now created cross-cultural programs focusing on international health(9,15).

Increasing the interest and participation of U.S. students studying abroad have been observed by U.S. colleges and universities. Statistics show that more and more institutions have international offices(1). Although the extant literature focusing on specific dimensions of international education is scarce, a few empirical studies provide some insight into students' interest and participation(5,6). The international education literature suggests approximately four areas of interest for international programs: (i) personal growth; (ii) general education; (iii) special education enhancement; and (iv) international understanding(7).

In 1987, the Study Abroad Articulation Project (SAAP) was launched to strengthen international education in the undergraduate curricula in the U.S. by making study abroad more essential and accepted within the existing curricula(6). A group of college students who studied abroad reported various reasons for doing so including: to experience another culture, to improve their foreign language skills, to live in a foreign land and meet other people, to travel, and to gain another perspective on their home country.

However, all students reported little awareness of specific study abroad programs, such as student-only and student-fac-

Received August 2, 1999, accepted December 30, 1999.

ulty programs. Blau indicated that liberal arts students reported other reasons for interest in study abroad programs, such as boosting career opportunities, utilizing the international experience in professional life, and becoming familiar with subject matter not available at their U.S. institution(8). Other factors such as program promotion, situational dynamics, and characteristics of respondents may also have affected levels of interest in international programs, but were not examined. The majority of students who are most interested tend to be primarily single women majoring in liberal arts/humanities(1,3,6-8).

Even though there is moderate interest in international education, U.S. students', especially health professional students', participation in international programs is low. In an attempt to remedy this situation, Congress passed legislation in 1992 to increase the chance for undergraduate study abroad as well as to encourage language and site-specific studies(9). In a monolingual society, few Americans know any other language. As a result, most U.S. students enroll in study abroad programs taught in English(10). A lack of foreign language proficiency may limit U.S. students' opportunities to participate in international educational exchange programs worldwide. Other barriers to participating in study abroad programs include lack of pertinence(6), delay in graduation, lack of importance to their studies, lack of time to commit to the program, location of site, unfamiliarity of new cultures, and travel expenses(11).

International Health Educational Programs

Health educators are responding to the challenge of globalizing health care. Scientific knowledge is expanding so rapidly that information exchange is needed(12). Therefore, global health perspectives are in demand. International health experiences at institutions of higher learning are becoming more common for medical professionals. In the past four decades, U.S. participation in international health education has increased(13). In 1988, the Educational Commission for Foreign Medical Graduates (ECFMG) completed a directory of the international activities of accredited U.S. schools in the health sciences including medicine, dentistry, pharmacy and public health(14). Pharmacy ranked last in permitting overseas research for its faculty members and allowing degree-candidate students to take elective study abroad courses. Medicine and public health were reported to be more involved in the international scene than pharmacy and dentistry, with education and research being the most common objectives for international programs among the health science schools(14).

Nursing has developed creative approaches to international education. Some nursing schools have enrolled international students, employed faculty with international experience and included international dimensions to the current curricula(15). Although the level of interest and enthusiasm is apparently high, the number of participating schools is relatively small.

International Education Evaluation

Impact assessments of general international educational studies are numerous in the literature, but international health programs are scarce to find. In 1987, Carlson and Widaman examined the issue of whether or not foreign study heightened levels of international understanding among 304 out of 450 college juniors who studied abroad(16). A comparison group was comprised of approximately 519 similar students who chose to stay at their home university during their junior year. The two groups were compared on international awareness in

four dimensions: (i) political concern; (ii) cross-cultural interest; (iii) cultural cosmopolitanism; and (iv) political isolationism. The two groups reported similar attitudes on all of the attitudinal dimensions assessed before their junior year. However, after their junior year experience, the study abroad group had a greater positive change in cross-cultural interests, cosmopolitanism, and attitudes toward their own country. Nursing students who participated in international educational programs showed greater cognitive growth than students who did not participate(17,18). In 1993, Zorn assessed the long-term impact of study abroad experiences on alumni from the University of Wisconsin School of Nursing(19). Participants in the longer exchange programs reported a greater long-term impact than those participants in shorter-term programs. Older students were more likely to experience a higher degree of personal development than younger students. Also, the researchers reported that the long-term positive impact was found to decrease over time. However, there were several limitations to the study such as small sample size, reliability and validity issues concerning the instruments, and lack of standardization of study abroad programs.

Significance of the Study

With the increasing need to provide students of the health professions with an international perspective and an increased emphasis on global health care, it is especially meaningful for health care professionals to be informed about a pluralistic and multicultural society. Information about international health care delivery systems and culturally diverse patient populations should enable present and future healthcare professionals to provide optimal health services. A number of U.S. Schools of Pharmacy have already developed active exchange programs with the international community. However, complete and accurate descriptive information on pharmacy-related international educational exchange programs is limited. Even though a few studies have examined U.S. students' awareness and interest in international health-related experiences, no known studies have specifically assessed international pharmacy educational exchange programs. Because international educational exchange programs can offer students potentially life-changing experiences, an underlying assumption of this research is that pharmacy-related study abroad programs may provide pharmacy students (future practitioners) with the necessary knowledge and skills to effectively treat culturally diverse persons. This study serves to provide such information.

Objectives

The purpose of this research was to examine the need for establishing an international educational program specifically for colleges of pharmacy. The four primary objectives of the study were as follows:

- to establish the level of awareness/exposure of pharmacy students to international educational programs;
- to determine students' likelihood of participation in international educational programs;
- to identify perceived barriers/obstacles that students associate with international educational programs; and
- to explore relationships between students' likelihood of participation in international educational programs and students' demographic characteristics.

Table I. Characteristics of pharmacy student respondents (N=297)

Characteristic	Frequency ^a (Percent)	Mean (SD)
Gender		
Female	209 (70.4)	
Male	8 (29.6)	
Ethnicity		
Caucasian- American/White	161 (55.3)	
Asian-American/Oriental	71 (24.4)	
Mexican-American	32 (11.0)	
African-American/Black	13 (4.5)	
Other	11 (3.8)	
Puerto Rican, Cuban, Latino, or Other Hispanic Origin	2 (1.0)	
Marital Status		
Unmarried	233 (78.7)	
Married	63 (21.3)	
Children		
No	267 (89.9)	
Yes	30 (10.2)	
Language Fluency		
Not fluent in language(s) other than English	186 (63.5)	
Fluent in language(s) other than English	107 (36.5)	
Age		25.2 (5.19)

^afrequencies do not total 297 because of missing responses.

^bRange for age was 20 to 50 years.

METHODS

Questionnaire

A questionnaire was developed to reflect pharmacy students' awareness of pharmacy-related international educational programs and their willingness to participate in such programs in relation to length of study, funding, site determination, site location, and college credit transfer as well as students' perceived barriers to participation. The instrument was developed with the input from several different areas: the University's study abroad office, the University's international office, pharmacy faculty, and nursing faculty who have had previous experience with international educational programs. After the instrument was pilot-tested, wording was changed to ensure that the items were relevant to the targeted population.

The questionnaire consisted of eleven items. The first question asked the respondent to indicate if he/she was currently aware of any pharmacy-related international educational programs. If "yes," the respondent was asked to indicate his/her level of satisfaction with the availability and quality of the information as well as the type and source of the program. The second set of items asked the respondent about his/her likelihood of participation in pharmacy-related study abroad programs, as well as his/her primary reason for considering participation and his/her desired length of stay. Respondents rated their likelihood of participation under the following four conditions: (i) funding; (ii) determination of site; (iii) location of site; and (iv) credit/no credit issues. Each likelihood item required a response to a Likert-type scale ranging from 1 "Extremely Unlikely" to 5 "Extremely Likely." Then, respondents were asked to rank the three most important factors that would influence their participation and the three most important factors that would prevent them from participation. Questions regarding demographics of the respondents were obtained from a larger survey in which this questionnaire was attached.

Study Population and Data Collection

The instrument was administered face-to-face (N=363) or mailed (N=67) to all baccalaureate and Doctor of Pharmacy students at a large, public university located in a metropolitan area in the southwestern region of the United States. Pharmacy students in their first two years of the professional curriculum in a 2-3/2-4 pharmacy program completed the questionnaire. Most pharmacy students completed the questionnaire near the end of designated class periods, and those who were in their internship semester received mailed questionnaires. Pharmacy students' participation in the study was entirely voluntary and no incentive was given.

Data Analysis

The data analyses consisted of frequency distributions, means, chi-squares, correlations, t-tests, and one-way analysis of variance (ANOVA) procedures. Descriptive statistics were used to report the age of respondents as well as to identify mean scores of specific items using Likert-type scales. Correlational analyses, t-tests, and ANOVA procedures were used to examine the relationships between students' likelihood to participate in pharmacy-related international educational/study abroad programs and demographic characteristics. The alpha level of significance for all statistical tests was 0.05.

RESULTS

Characteristics of Respondents

Out of the 430 possible respondents, 297 completed and returned the questionnaire for an overall response rate of 69 percent. A chi-square analysis showed no significant association between participants and non-participants based on gender ($\chi^2=1.390$, $df=1$, $P=0.238$), the only known characteristic of non-responders. Whether or not participants and non-participants differed on other characteristics is unknown.

Characteristics of the respondents are shown in Table I. The mean age of the students was 25.2 years. Seventy percent of the respondents were female and 55 percent were Caucasian. Other demographics revealed that over three-fourths of the students were unmarried and had no children. Even though 37 percent indicated that they fluently spoke at least one language other than English, only four percent indicated that they were foreign students (non-U.S. citizens).

Students' Awareness of Pharmacy-Related International Educational/Study Abroad Programs

Most respondents (84 percent) were not currently aware of any existing pharmacy-related study abroad programs for students. However, students who currently were aware of these programs were neutral about their satisfaction with the availability ($M=2.67$, $SD=0.86$) and quality ($M=2.85$, $SD=0.81$) of pharmacy-related study abroad information. The majority of students (81 percent, 34 out of 42) who were aware of pharmacy-related programs were aware of student-only programs and the three most reported sources of their awareness were peers/friends (N=12), organizations/committees (N=10), and "other" sources (N=7).

Pharmacy Students' Responses to Questionnaire Items

Table II lists survey items and pharmacy students' mean responses. On average, students were moderately unlikely to participate in an international educational/study abroad program. However, when students were asked to provide the primary reason they would consider participating in a study

Table II. Pharmacy students' mean responses to questionnaire items (N=297)

Item	Mean ^a (SD)
Likelihood to participate in an international educational/study abroad program here in The College of Pharmacy	2.30 (1.28)
Likelihood to participate in a study abroad program under each of the following conditions	
Full funding	3.95 (1.32)
Partial funding	2.76 (1.26)
No funding	1.43 (0.83)
Likelihood to participate in a study abroad program under each of the following conditions	
Responsibility in finding your own site	2.42 (1.32)
Chance to select your site from a list of choices	3.62 (1.30)
No chance to select your site	1.99 (1.11)
Likelihood to participate in a study abroad program under each of the following conditions	
English is native language in overseas site	3.81 (1.32)
Courses conducted in English/English isn't native language	3.62 (1.33)
Courses NOT conducted in English	1.83 (1.12)
Likelihood to participate in a study abroad program under each of the following conditions	
Credit equivalent to required clerkship rotations	3.87 (1.34)
Credit in addition to required clerkship rotations	3.05 (1.31)
No university credit	1.90 (1.18)

^a1=Extremely Unlikely, 2=Moderately Unlikely, 3=Neither Likely nor Unlikely, 4=Moderately Likely, 5=Extremely Likely.

abroad program, 124 of 269 students (46 percent) indicated that they would participate in such programs to complete internships, 56 of 269 students (21 percent) would participate primarily for work reasons, 46 of 269 students (17 percent) for study reasons, and 27 of 269 (10 percent) indicated "other" as their primary reason to participate. Reasons in the "other" category were not specifically identified. Sixty-eight percent of the students stated that they would prefer the summer session while only three percent of the students said they preferred the spring semester. Pharmacy students were more likely to travel abroad if the study abroad program was fully funded, if the students had a chance to select their own overseas site from a list of choices, if the native language of the host site was English, and/or if the student received university credit equivalent to clerkship rotations.

When asked to identify the three most important factors they would consider for participation in a study abroad program, students most often indicated: the chance to travel, the chance to learn about new cultures, and the chance to expand their knowledge base of assessing health care systems. Cost of travel, time commitment, and location of site appeared most often when students were asked to identify the three most important barriers to participation in pharmacy-related study abroad programs.

Differences in Responses Based on Student Demographics and Other Background Characteristics

Several analyses were conducted to determine if there were any differences in students' likelihood to participate in international educational/study abroad programs based on demographic information. ANOVA indicates that ethnic background of students was significantly associated with their likelihood to participate in study abroad programs ($F=3.53$, $df=285$, $P=0.008$). Students grouped into the "other" ethnicities were more likely to participate in study abroad programs ($M=3.00$, $SD=1.60$), even though they were neutral about participation. Mexican-Americans ($M=1.79$, $SD=1.15$) were more likely not to participate in study abroad programs when compared to other ethnic backgrounds.

A chi-square analysis showed a significant association between ethnicity and students' language fluency ($\chi^2=122.7$, $df=4$, $P=0.001$). The majority of Asian-Americans, Mexican-

Americans and "other" ethnicities speak at least one language other than English. There were no statistically significant differences in students' overall likelihood to participate in study abroad programs when controlling for age, gender, marital status, children, and current semester.

When controlling for language fluency (students' ability to speak a language(s) other than English), the independent groups *t*-test showed a significant difference in the likelihood to participate in study abroad programs involving two site characteristics: (i) programs which are conducted in English even though English is not the native language ($t=2.32$, $df=230$, $P=0.02$); and (ii) programs which are not conducted in English ($t=3.42$, $df=167$, $P=0.008$). English-only speaking students were not as likely to participate in study abroad programs in which the programs were conducted under the above two conditions.

DISCUSSION

This study determined pharmacy students' awareness of pharmacy-related international educational/study abroad programs as well as their likelihood to participate in such programs. In addition, reasons for participation and barriers to participation were identified. Also, relationships were explored between students' likelihood to participate and students' demographic characteristics. Overall, pharmacy students were not likely to participate or were indifferent about participating in pharmacy-related study abroad programs. One plausible explanation may be that students were not aware of pharmacy-related study abroad programs. Also, lack of participation by their college of pharmacy may have negatively influenced students' likelihood of participation. Since the U.S. has the best pharmacy education on a global perspective and many foreign students come to the U.S. for pharmacy studies, U.S. students may not see the need for international experiences in pharmacy. However, pharmacy students reported that they would more likely participate if it was possible for them to receive full funding, to have the opportunity to select a site from a list of choices, to select a site in which English is the native language, and/or to receive university credit that is equivalent to clerkship rotations. However, this does not necessarily mean that pharmacy students were more interested in study abroad programs under the specified conditions.

Financial burdens may explain why more than half of the students were not likely to participate since one national report indicated that 67 percent of college students' funding comes from personal or family support(10). Students' financial information for this study is not known. Also, multilingual students were generally more likely to participate in study abroad programs when compared to English-only speaking students. The international education literature shows that most U.S. students participate in study abroad programs conducted in English, as opposed to foreign students who often study in their host country's language(4). In this study, multilingual students indicated a higher likelihood of participation in non-English conducted study abroad programs when compared to English-only speaking students. Henceforth, multilingual abilities may positively influence students' likelihood to participate in pharmacy-related study abroad programs where language barriers may pose potential threats. Multilingual students or some ethnic groups may be more "culturally aware" or simply more comfortable with new culturally diverse experiences.

An overwhelming majority of students was not aware of existing pharmacy-related study abroad programs. Perhaps, students' lack of exposure to pharmacy-related international/study abroad programs was related to their college's inactivity in study abroad programs. The majority of students who were aware of pharmacy-related programs were mostly aware of study abroad programs for students only, even though other types of programs exist. It appears that peers/friends of the students supply most of the information. This suggests that much of the information may be provided in informal settings.

Most students would consider either internships, work, or study as primary reasons to consider participation in study abroad programs. The identified reasons for participation in study abroad programs correspond to the purposes of international activities of colleges of pharmacy reported in the literature(14). One explanation for the low response for research is that the participating students were enrolled in non-research intensive pharmacy programs.

Overall, 85 percent of the students preferred to participate in a study abroad program for the duration of one semester or less. This finding is consistent with the international education literature(10). Possible reasons for shorter durations may be associated with financial situations, work commitments, family commitments, graduation delays, or other personal delays.

A review of the literature indicates an incongruity with Americans who study abroad and foreign students who come to study in the U.S. Americans abroad tend to study humanities, the social sciences, and foreign languages with relatively few in engineering or the health sciences. The sample population in this study, therefore, may not be representative of the overall population of U.S. students who study abroad since survey respondents in this study are in the health sciences (pharmacy). Consequently, results, controlling for specific demographic characteristics, may not follow national trends. No significant differences were found in students' likelihood of participation when controlling for gender, despite reports indicating that females, primarily single females, participate more than males(1,10). Observations in this study may be a reflection of the fact that health science students including pharmacy students may not be as likely to partake in study abroad programs, in general, compared to all U.S. students in other areas such as humanities and business.

Students in the "other" ethnic category were more likely

to participate in pharmacy-related study abroad programs when compared to Blacks, Asians, Whites, and Hispanics, despite their overall neutral position to participation. Statistics indicate that U.S. students who studied abroad in 1996 to 1997 were comprised primarily of Caucasian-Americans (84 percent), with Hispanic and Asian-Americans constituting about five percent each(10). Most institutions do not track students by ethnicity/race. Thus, it is unknown how representative the present findings are with respect to national trends among different ethnic/racial groups.

The chance to travel, to expand knowledge base of health care systems, to enhance personal development, and to learn about new cultures were the four most frequently reported reasons that students would consider participation in international travel. It appears that students are attracted to cultural, personal, and professional experiences and not so much to global issues. Some empirical studies have found similar results among other U.S. students(5,20). Predictably, the cost of the travel/trip was ranked by students as the most important reason not to participate in pharmacy-related international educational/study abroad programs. Pharmacy students may be sensitive to extra college expenses since many pharmacy students incur extraneous clerkship/rotational expenses involving relocation and transportation costs while studying at their host university. The second most important barrier to participation was time commitment. Since pharmacy is a five to six year degree depending on the specific pharmacy program, students may not want to delay their graduation any longer than is necessary. Thus, students, if likely to participate, prefer to participate in programs in which they receive university credit that is equivalent to pharmacy clerkships. The third most important barrier was language. Participants in this study were less interested in language issues due to the fact that their interests leaned more toward professional and personal development issues.

Results of the study indicate there is a need to enhance pharmacy students' awareness of international education programs. It is recommended that schools of pharmacy and professional organizations work together to provide valuable information to pharmacy students regarding international opportunities. Emphasis on international health care can be incorporated into the professional curricula. It is recommended that pharmacy educators address issues such as funding, sites or locations, language barriers, and credit transfers when modifying or developing international educational programs in order for pharmacy students to have a positive international experience. Tailoring program characteristics to students' and professional curricula's requirements, pharmacy educators may increase students' likelihood of participation. In the future, colleges of pharmacy and pharmacy educators should explore student issues involving international education.

Limitations

The results of the study should be considered within some limitations. One limitation may be the construction of the instrument. Since an instrument evaluating awareness of international educational programs and students' likelihood to participate in study abroad programs had not been developed, an instrument was constructed based on an in-depth review of the international education literature. Thus, the instrument may not have adequately addressed the needs and concerns of the study population. The number of items for this survey was limited. Adding more statements per objective may have increased the reliability and validity of the questionnaire items. A potential

second limitation involves the number of international students (3.7 percent) who participated in the study. International students may have wanted to “study abroad,” and, therefore, may have been quite willing to participate in international study exchange programs possibly in their “homelands.” This is something to consider although it was not analyzed in this study. However, due to the small number of international respondents in this study, the influence of their responses were thought to be minimal. A third limitation is that of generalizability. The scope of this study was restricted to one specific college of pharmacy. Therefore, results cannot be extrapolated to pharmacy students nationwide or to student populations in other degree programs. Future research should be conducted using a representative nationwide sample of pharmacy students to evaluate the validity of the current findings. More empirical research involving health-related study abroad programs needs to be considered if the current trend of health care is moving towards globalized health care. A fourth limitation is that of non-participant bias. Since responses of the non-participants were not obtained in this study, non-participant bias must be taken into account. A chi-square analysis noted no significant differences with respect to gender, however, differences based on other characteristics are unknown.

CONCLUSIONS

Overall, pharmacy students were not likely to participate in pharmacy-related study abroad programs. The main sources of information were peers/friends and organizations/committees. If funding was provided, if students could select a site from a list of choices, if the program was conducted in English, or if students received university credit equivalent to rotations/clerkships, students would more likely participate. Overall, pharmacy students were interested in personal development, increasing self-awareness and self-confidence as reasons to travel abroad. Obviously, the cost of tuition, sources of income, lengthy degree program (five to six years), and other barriers may have negatively influenced students’ likelihood to participate in study abroad programs. Both ethnicity/race characteristics and multilingual abilities positively influenced pharmacy students’ likelihood to participate.

As pharmacy practice continues to evolve, future practitioners must expand their knowledge base to meet the demand of the profession. With globalized health care on the rise, pharmacy educators need to raise students’ awareness of international opportunities, to address student issues concerning international education, and to provide interested students with optimal international experiences.

Acknowledgments. The authors acknowledge Dr. Marvin Shepherd, Ms. Diane Ginsburg, and Dr. Joanne Richards for their advice and support regarding this project and The

University of Texas College of Pharmacy for their support in data collection. Copies of the instrument can be obtained from the primary author.

Am. J. Pharm. Educ., **64**, 62-67(2000).

References

- (1) Desruisseaux, P., “The number of americans studying abroad increases by 5.7%,” *Chron. Higher Educ.*, **44**, A44-47(1997).
- (2) Andersen, C., *International Studies for Undergraduates*, 1987: *Operations and Opinions*, American Council on Education, Washington, DC (1988).
- (3) Green, M. and Hayward, F., *Transforming Higher Education: Views from Leaders Around the World*, (edit., Green, M), American Council on Education and the Oryx Press, Phoenix AZ (1997) Chapter 1.
- (4) Hanson, K. and Meyerson, J. *International Challenges to American Colleges and Universities: Looking Ahead*, American Council on Education and the Oryx Press, Phoenix AZ (1995) pp. 42-62, 117-140.
- (5) Deutsch, S., *International Education and Exchange*, The Press Case Western Reserve University, Cleveland OH (1970) pp. 109-132.
- (6) Burn, B., *Integrating Study Abroad into the Undergraduate Liberal Arts Curriculum: Eight institutional case studies*, (edit., Burn, B.), Greenwood Press, Westport CT (1991) pp. vii-x, 1-7.
- (7) Coelho, G., “Personal growth and educational development through working and studying abroad,” *J. Soc. Issues*, **18**, 55-67(1962).
- (8) Blau, P., “Orientation of college students toward international relations,” *Am. J. Sociol.*, **59**, 205-214(1953).
- (9) Uhl, J., “International affairs: International exchange-students and faculty,” *J. Prof. Nurs.*, **9**, 5(1993).
- (10) Davis, T., *Open Doors 1996-1997: Report on International Educational Exchange*, Institute of International Education, New York NY (1997) pp. 135-153.
- (11) Ryan, M., Twibell, R., Miller, A. and Brigham, C., “Cross-cultural nursing: A report of faculty collaboration through regional networking,” *Nurse Educator*, **21**, 28-32(1996).
- (12) Anonymous, “The rise of international cooperation in health: Medical, social, political, and economic history sheds light on the purpose and function of WHO,” *World Health Forum*, **16**, 388-393(1995).
- (13) Baker, T. and Quinley, J., “A U.S. international health service corps, options and constraints,” *JAMA*, **257**, 2622-2625(1987).
- (14) Asper, S., “Report on the survey of international activities of U.S. health professions school,” *Acad. Med.*, **64**, S33-36 (1989), Supplement 1.
- (15) Lindquist, G., “Integration of international and transcultural content in nursing curricula: A process for change,” *J. Prof. Nurs.*, **2**, 143-150(1986).
- (16) Carlson, J. and Widaman, K., “The effects of study abroad during college on attitudes toward other cultures,” *Int. J. Intercultural Relations*, **12**, 1-17(1988).
- (17) Frisch, N., “An international nursing student exchange program: An educational experience that enhanced student cognitive development,” *J. Nurs. Educ.*, **29**, 10-13(1990).
- (18) Zorn, C, Ponick, D. and Peck, S., “An analysis of the impact of participation in an international study program on the cognitive development of senior baccalaureate nursing students,” *ibid.*, **34**, 67-70(1995).
- (19) Zorn, C., “The long-term impact on nursing students participating in international education,” *J. Prof. Nurs.*, **12**, 106-110(1996).
- (20) Coelho, G., “Personal growth and educational development through working and studying abroad,” *J. Soc. Issues*, **18**, 55-67(1962).