Research Brief

Influence of International Service-Learning on Nursing Student Self-Efficacy Toward Cultural Competence
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ABSTRACT
One method of gaining knowledge, skills, and experience with different cultures for nurses and nursing students is through an international immersion program of training in language, culture, and community nursing. This article presents a qualitative and quantitative research study of the influence of a 2-week service-learning medical experience of a nursing student group who traveled abroad to Belize, Central America. [J Nurs Educ. 2014;53(8):474-478.]

A need exists for cultural diversity training of nursing students. The rapidly changing and diverse demographics in the United States requires nurses to be culturally aware, sensitive, knowledgeable, and self-confident in providing culturally competent nursing care. Providing culturally competent nursing care begins with the preparation and effective training of nursing students. Multiple curricular approaches are being used to teach cultural competence to undergraduate nursing students in the United States in accordance with mandates to include cultural diversity training by accrediting board standards (American Association of Colleges of Nursing, 2008; Jeffreys, 2006).

Because nurse educators are searching for evidence-based teaching practices, research is needed to determine the effectiveness of various teaching strategies of cultural competence (Long, 2012). Nurse educators must actively seek out, evaluate, and implement strategies to develop culturally competent practitioners. In an era of evidence-based practice, all clinical practice requires current research to validate the effectiveness of the various teaching strategies used to teach cultural competence topics to nursing students (Kardong-Edgren & Campinha-Bacote, 2008). Current teaching strategies include offering traditional lectures, readings, oral reports, group discussions, simulation, and role-playing, which are all constructed learning experiences, by a culturally competent nursing instructor, rather than relying on the chance encounter with a patient in a clinical setting who may be of a different ethnicity than the student.

An international immersion program of training in language, culture, and community nursing is a proposed strategy to help nursing students progress toward cultural competence. Nursing students who have participated in a study abroad experience demonstrate an increase in self-awareness, self-confidence, and life experience after working with cultures different than their own (Foronda, 2010; Larson, Ott, & Miles, 2010; Wiegerink-Roe & Rucker-Shannon, 2008; Wood & Atkins, 2006). The current study demonstrates and provides evidence of the value of an international service-learning activity as an effective teaching strategy to increase self-efficacy in the pursuit of cultural competence for nursing students.

Cultural Competence Training
According to the U.S. Census Bureau (2011), 38% of the American population consists of individuals from ethnic, non-White backgrounds, indicating that our nation is growing in racial and ethnic diversity. Between 2000 and 2010, more than

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half of the growth in the total population of the United States was due to the increase in the Hispanic population (U.S. Census Bureau, 2011). Statistics demonstrate that health care disparities exist among ethnic and racial groups (U.S. Department of Health and Human Services, 2004). Cultural competency has been proposed as an effective solution to help reduce health and medical care disparities (Drewdahl, Canales, & Dorcy, 2008; Giger et al., 2007).

As nursing schools comply with regulating agencies to include cultural competence training in their curriculum, research is lacking in determining which teaching strategies can increase students’ measurable cultural competence and confidence of ethnic and cultural diversity in their nursing care. Traditional teaching practices of lecture and readings alone are not sufficient to prepare a nursing workforce that can appropriately respond to the diversity of patients’ needs, cultural preferences, and language (Campesino, 2008; Coffman, Shellman, & Bernal, 2004; Long, 2012; Sianz & Meleis, 2007).

Factors that contribute to cultural competence include self-awareness, desire, sensitivity, knowledge, and lived experience with cultures different than one’s own (Campinha-Bacote, 1999; Jeffreys, 2006; Hughes & Hood, 2007). Self-efficacy, or the belief that one can succeed in performing a desired skill, is needed to practice cultural competence; therefore, it becomes the link between knowledge and actual success in a task (Coffman et al., 2004). Factors that affect levels of cultural self-efficacy and confidence include learning a foreign language, travel to a foreign country, or previous cultural competence training (Coffman et al., 2004). Newly graduated nurses who have had cultural competence training, especially lived experiences, rather than merely listening to a lecture or reading a textbook, indicated that they have higher levels of confidence when working with diverse populations (Hunt & Swiggum, 2007; Reeves & Fogg, 2006). Therefore, travel study programs for nursing students have been proposed as strategies to help foster cultural competence and self-efficacy for practicing with diverse cultures (Bentley & Ellison, 2007; Fitzpatrick, 2007).

Study Abroad for Nursing Students

Study abroad programs have been used in the United States in undergraduate programs to help foster cultural competence for students in many fields of study (Fairchild, Pillai, & Noble, 2006; Hunt & Swiggum, 2007; Levine & Perpetua, 2006). However, immersion programs are rarely included in community college curricula due to prohibitive cost, unprepared faculty, and lack of time in the curriculum; thus, they are used less in associate degree nursing (ADN) programs. Graduates of ADN programs represent 60% of entry-level nurse graduates annually and compose up to 45% of the RN workforce (U.S. Department of Health and Human Services, 2004), but there is paucity of research examining cultural competence training for ADN students in a study abroad experience.

Objectives and Research Questions

The objectives of the study were to (a) measure preintervention scores of cultural competence and self-efficacy in nursing students, (b) compare postintervention scores, and (c) evaluate the effectiveness of an international service-learning experience as a teaching strategy in strengthening self-efficacy toward developing cultural competence.

The research questions were:

- How does service-learning in an international country affect self-efficacy toward the development of cultural competence in ADN students?
- How do ADN students value a medical international service-learning experience for gaining skills toward cultural competence?
- How do ADN students in different semesters compare with each other in self-efficacy toward developing cultural competence?
- Does a difference exist in self-efficacy toward cultural competence among ADN students who have had prior language or international travel experience?
- Does a difference exist between the intervention group and a control group?

Method

Participants

A total of 34 ADN students participated in the study, with 17 being in a control group and 17 in an international intervention group. All 34 students were from the same southwestern U.S. college of substantial cultural diversity. Seventeen students volunteered to participate in a 14-day international service-learning trip with a nonprofit organization to the Central American country of Belize. The participants represented a cross-section of a self-select group of nursing students willing to volunteer and pay for a 2-week service-learning experience. All 17 participants were women and included six new graduates of an ADN program.

A control group of 17 students from the same school of nursing was self-selected. The control group included students who had also completed the same curriculum as the intervention group and were completing a preceptorship during their last semester of nursing school. Their preceptorship was a 14-day clinical experience within their own community in a local hospital with the same patient diversity as their community in which all participants had worked previously. The students also completed a pre- and postsurvey and completed daily journals. Student age, ethnicity, previous language, and travel experience were similar to the international service-learning group.

Prior Cultural Competence Training

All control group students had received lectures in cultural competence during their first semester and throughout their curriculum. In the intervention group, the students represented various semester completion ranges from first-semester study to newly graduated nurses; therefore, their background training in cultural competence was varied. Fourteen students claimed to have received prior cultural competence training, which included lecture, readings, or simulation. Four participants indicated they never received cultural competence training; however, all students came from the same nursing program that includes some readings and one lecture during their first semester, which raises the question of the effectiveness of the lectures and readings. As a teaching strategy, lecture and readings have not been shown to produce significant improvements in cultural competency.
scores of nursing students (Long, 2012). On a Likert scale of
1 = no cultural knowledge to 5 = maximum cultural knowledge
about a specific ethnic group, 100% of the participants scored
themselves no higher than a 2 for cultural knowledge on the
presurvey, including those who had recently graduated. Of con-
cern, no difference in scores was noted among students who had
completed a varying number of semesters, including the first
semester and those who had recently graduated from the ADN
program after four semesters.

Prior Foreign Language

Of the initial 18 students in the intervention group, 10 re-
ported that they received some prior foreign language training,
which varied from 1 to 5 years, and eight had no prior foreign
language training.

The majority of the intervention group had no prior Spanish
language training, but all received 8 hours of medical terminol-
ogy in Spanish during the trip in a formal classroom setting and
more than 20 hours in clinical settings. Community home visit
forms were translated, which the students used during their home
visits and clinic time, and all students received training in how
to use the forms. In the postsurvey, 100% of the students indi-
cated that both their confidence and ability to speak basic medical
terms, greetings, and assessment questions in Spanish improved.

Prior International Travel

Twelve students from the intervention group and two fac-
ulty members had traveled abroad in some capacity, either as
a student or as a tourist, and one student served on a previous
religious mission trip for 2 weeks. The preintervention scores of
those who had traveled internationally prior to this immersion
experience were higher than those who had not traveled at all,
although the highest score was still only 2 on a Likert scale of
1 to 5. Research shows significant positive results are gained in
self-efficacy in cultural competence through even short (from
2 weeks to several months) study abroad trips (Caffrey, Nean-
der, Markle, & Stewart, 2005).

Study Location

The 2-week international service-learning medical trip was
to the district of Orange Walk, Belize, Central America. Stu-
dents traveled to three communities, and the population of each
consisted of approximately 300 people living in rural settings.
Most families did not have running water or public sewer sys-
tems and cooked with wood inside their wooden-walled homes.
The students stayed in a local hotel with running water, electric-
ity, and Internet access.

Study Intervention

This study included a 2-week service-learning medical ex-
perience in Belize, Central America during the summer and in-
cluded a total of 18 formal classroom-style instructional hours
taught by the staff and nursing faculty in the topics of medi-
cal Spanish, cultural competence, folk medicine, tropical dis-
eases, Mayan medicine, assessment and triage, and community
health nursing. Forty-five hours of structured volunteer service-
learning were provided in three remote villages, including 1 day
of shadowing local nurses in the hospital.

Instrumentation

Quantitative data were collected using the Cultural Self-Efficacy
Scale for the preintervention survey and again for the postintervention survey on the final day of the trip. The Cultural Self-Efficacy scale by Bernal and Froman (1987) was chosen for its simplicity, measurement of confidence, 26 parameters of culture, and four ethnicities, including African American, Hispanic, Asian, and Native American. The Cultural Self-Efficacy Scale has an estimated total scale internal consistency of Cron-
bach’s alpha of 0.97 and reports content and construct valid-
ity (Bernal & Froman, 1993). In a principal factor analysis, a
four-factor structure of ethnicities was considered conceptually
meaningful. In addition, a regression analysis showed signifi-
cant relationships between perceptions of efficacy and demo-
graphic variables of race, education, and experience. The cu-
mulative score from this scale is at the interval level of data
measurement. Because the students derive from each of the four
ethnicities identified in the instrument, the author questioned
whether a difference in scores based on ethnicities would be
noted. However, no difference was evident.

Qualitative data were collected from the self-reflection
journals of each participant for each day of the trip and from
private interviews with each student by the researcher at the
end of the 2-week experience. According to Lieblich, Tuval-
Mashiach, and Zilber (1998), narrative self-reflection journals
allowed the students to express their thoughts and feelings in
their own words, as “narrative methodology results in unique
and rich data that cannot be obtained from experiments, ques-
tionnaires, or observations” (p. 5). Because one limitation of
the study was the small number of participants, a qualitative
method was jointly used to add to the richness and breadth of
the data. Researcher bracketing was acknowledged in an effort
to not influence the data analysis and collection process (Chan,
Fung, & Chien, 2013). The literature review for the study was
delayed until after data collection was completed to minimize
bias, as the author also served as the teaching faculty for the
trip. Because the students did not receive a grade for their vol-
unteer work or journal entries, any perceived pressure to pro-
duce journal entries to “please the professor” was minimized.

Theoretical Frameworks

The theoretical foundation of the study was based on Bandu-
ra’s social cognitive theory (1994), which includes the construct
of self-efficacy toward cultural competence. Bandura’s social

d
cognitive theory posits that learning and motivation are directly
related to perceptions of confidence. The framework identifies
knowledge of cultural concepts, knowledge of cultural vari-
ables, and self-confidence to perform certain nursing skills.
Leininger’s theory of transcultural nursing (1996) also served as
the foundational premise that nursing students can learn cultural
concepts to change and improve the nursing care of patients
who are different from themselves.

Data Analysis

Quantitative Data

The quantitative data for both groups were analyzed with a
one-sample, matched-pair t test of the means to determine the
average score of the self-efficacy scale for the Hispanic ethnic
group between the preintervention and postintervention. The sample size used for the intervention group was 16, as one student departed from the main group 2 days earlier and did not submit her postsurvey. The assumptions of the matched-pair t test were all met. The t score mean was 8.957 and the p value was <0.001 (value was 6.20 × 10^-8). X = 121.94, SD = 56.3. The p value (<0.001) shows that the cultural immersion experience intervention significantly increased student self-confidence in working with diverse patients. No significant difference was noted for the control group.

The data reveal that because the p value is <0.05, a significant effect (improvement) was noted in the self-efficacy score of knowledge and confidence for the intervention group working with a Hispanic ethnic group after a 2-week study abroad service-learning medical experience for ADN students. Also, a moderately significant improvement was noted in the other ethnic categories of African American, Asian, and Native American. No significant differences were noted among age groups, prior foreign language training, or prior international travel.

**Qualitative Data**

The qualitative data collected from the self-reflection journals of all students shared a common theme as their self-awareness of diversity among their patients increased. The control group noted efforts to address the unique needs of patients of different ethnicities but did not express personal discomfort, gratitude, or growth. The intervention group identified common themes, such as culture shock, gratitude for the country from which they came, and increased self-awareness and surprise around the poverty of the people with whom they worked. Many students shared their feelings of fear and discomfort of not being able to communicate adequately with patients, although translators were used for community health visits and in the clinics. Comparisons of their own homes, language, food preferences, safety, health, education, and opportunities with the people of Belize were indicated throughout their journals. Another theme was the variety of emotions the students experienced during their study abroad experience. Surprise and dismay at the variety of health beliefs and practices were emerging themes of their journals and were expressed during their postintervention interviews. Many students expressed discomfort seeing women publicly breastfeeding or sorrow over poor dental hygiene and living conditions. Many students also expressed anger and being embarrassed by their peers, who they judged as being culturally insensitive on several occasions.

**Implications for Nursing Practice and Education**

Educators should be aware of several nursing issues, including the mandate to teach cultural competence training to undergraduate nursing students in their curriculum, the variety of strategies and methods to teach cultural competence training, and resources for their students who are interested in a study abroad immersion service-learning experience. Faculty can show support for students’ choosing a nontraditional clinical learning experience, such as a study abroad service-learning experience, by helping students with fundraising and showing emotional support for their trip. Additional support by faculty for students can include providing learning materials or Web sites and books for language training or assessment skills and listings of local diseases in the area of travel. Resources for educators include the National League for Nursing’s *Diversity Toolkit* (2009) and the American Association of Colleges of Nursing’s *Cultural Competence Toolkit* (2008).

Nurse educators who prefer not to travel internationally but wish to promote, model, and advocate cultural competence training can create clinical experiences with diverse client populations within their own community, such as veterans groups, prison populations, HIV centers, and any other subgroups that include an ethnicity different from that of their nursing students. Additional research could be performed comparing the self-efficacy scores toward cultural competence with two groups, including one group that works with ethnically diverse populations within their own community and a second group that serves in an international community over the same time period and with the same training level. Creating a service-learning medical experience locally for nursing students where they can interact with ethnically diverse patients for a similar learning experience is important, as the cost of international travel is often a prohibitive factor. This research indicates significant value in purposely positioning ADN students within a clinical setting of a population that is different from their own as a strategy for developing confidence in cultural competence.

Nursing students who wish to be competitive in the marketplace as a new graduate and competent in managing cultural diversity in our population need to look for opportunities to expand their knowledge and skills in cultural competence outside of the classroom and textbooks. Because there is a variety of how cultural competence is currently being taught in nursing school curricula, graduates differ in cultural competence and generally score in the lower level of self-awareness only, rather than in the higher levels of actual competence (Kardong & Campinha-Bacote, 2008). Nursing programs may incorporate topics of cultural diversity and training throughout the curriculum, whereas others may identify diversity only in a brief module; yet, both are compliant with the current educational mandates.

By participating in a study abroad and service-learning experience, nursing students can showcase their volunteer work on a resume and stand out in the interview process when compared with other new graduates who have not participated in such a program. Additional language and clinical skills may also be gained from a service-learning experience when compared with a traditional clinical learning setting. The skill of addressing the diverse needs of our current and growing population will enable more sensitive, patient-focused nurses to promote a decline in the disparities of our current health care and improve positive patient outcomes.

**Limitations**

One limitation of the study was the small sample size of 34 participants. Although the students were randomly selected among the general nursing student population of more than 400 students, the intervention group of 17 was self-selected as those who chose to participate in the service-learning medical experience, already showing an interest in learning about other cultures. Using a total study sample size of 34 participants...
qualifies for the central limit theorem criteria of at least 30 participants, although the intervention group was only 17 participants. Data were not collected to measure any improvement in Spanish-speaking ability after the 2-week Spanish immersion experience; however, in their journals, students mentioned improving self-confidence with the language each day and a desire to learn more Spanish when they returned home.

**Conclusion**

The current research demonstrated that a 2-week medical service-learning experience in Belize significantly improved self-efficacy, self-confidence, skills, and self-awareness among ADN students in working with the Hispanic culture and developing cultural competence. Repeat studies are needed to generalize the findings to all ADN students and for other ethnic groups.

**References**


