Introduction
The accreditation of nursing education has urged researchers to conduct evidenced-based research to recognize factors such as societal biases and stereotyping or limited cultural sensitivity and competence contribute to health care inequities in order to develop strategies for increasing workforce diversity in health care providers.

Given the need for decreasing the health disparity and preparing the nursing students with cultural competence, nursing faculty have focused on exploring the strategies to implement cultural diversity activities for the curriculum.

The purposes of this study were to identify the essential factors that can influence the development of cultural competence in undergraduate nursing students in order to develop effective teaching strategies.

Methods
This comparative and predictive quantitative study was conducted in a university by sending 200 email invitation letters to all nursing students including ASN and BSN students for participation.

The IAPCC-SV® tool developed in 2007 by Campinha-Bacote consisting of five subscales of cultural awareness, cultural desire, cultural knowledge, cultural skill, and cultural encounters was used to collect data. In order to prevent “test bias,” all nursing students were randomly assigned into either an experimental group or a comparison group.

The experimental group completed the IAPCC-SV® at the beginning and the end of the semester, respectively; and the comparison group completed the IAPCC® only at the end of the semester in a selected nursing course in 2016.

An independent t-test was used to examine the differences in cultural competence between the experimental and comparison groups. Hierarchical multiple regression was employed to determine what significant factors influence the development of cultural competence in undergraduate nursing students. The p level was set at .05 for statistical testing.

Results
In total, 106 nursing students participating at the beginning of the semester consisted of 85 (80.2%) females and 21 (19.8%) males and 166 participants including 133 (80.1%) females and 33 (19.9%) males voluntarily participated in this study at the end of the semester.

The level of cultural competence among the participating students was 61.70 (SD = 5.80) at the beginning of the semester and 62.24 (SD = 5.63) for the end of the semester, which both indicated “a culturally competence level” based on the Campinha-Bacote’s (2007) definition.

The results also indicated no significant differences in cultural competence between the experimental and the comparison groups at the end of semester.

Hierarchical multiple regression using the stepwise and enter solutions was computed to identify six significant predictors for cultural competence including experience interacting to people who have different ethnic backgrounds, having continuing education relevant to cultural competence, and the four subscales of cultural desire, cultural knowledge, cultural skill, and cultural encounters (Adjusted R²=.88; F=1351.05; p=0.001).

The four subscales explained 78% of the variance in the level of cultural competence and the strongest influencing factor was the cultural desire subscale (50.1% of the variance).

Discussions
In this study, undergraduate nursing students were at “a culturally competent level,” which is consistent with Govere, Fioravanti, and Tuite’s (2016) study results that the majority of participating nursing students were White, non-Hispanic females and were equipped or able to respond appropriately to patients’ cultural needs and preferences.

Given the evidence that most participating students had exposure to people of different ethnic background than their own and received continuing education relevant to cultural competence, the students’ cultural competence in this study might be boosted by their strong cultural desire to experience various cultures.

Using a hierarchical multiple regression analysis to separate the effects of students’ personal working and learning experiences on student cultural competence from the five subscales of IAPCC-SV®, might provide direction for faculty to create an effective training program or course learning activities.

Particularly, the cultural desire subscale was the strongest predictor of cultural competence. Due to little evidence shown in the literature regarding identification of predictors for nursing student cultural competence, this study is valuable for serving as a reference for further research.

Limitations
The homogenous ethnicity of the students (largely Caucasian) and the unique characteristics in the Department of Nursing may limit general applicability of the results of this study. The target population for this study was originally limited to the future population of nursing students from the same ASN and BSN programs.

The other limitation of this study is the data collected are based solely on students’ self-report of their perceptions; their voluntary participation in this study may have an impact on their self-evaluation of cultural competence.

References


Recommendations and Implications
Cultural desire is the healthcare providers’ aspiration and motivation to engage in the process of becoming culturally competent. Cultural encounter is demonstrated when the healthcare providers directly interact with patients from diverse backgrounds.

It is suggested that faculty need to search opportunities to engage students in caring for patients with diverse cultures in clinical practice and to immerse students in the lived experiences to reflect their culturally competent care.

In turn, students’ desire to obtain cultural knowledge and skills may be triggered in a learning environment that is full of culturally diverse context.

Future research may focus on testing learning strategies that can increase students’ desire and exposures to persons with other cultures and identify what factors causing students’ discomfort with people from diverse cultural background.