ORIGINAL RESEARCH

The predictors of cultural competence among new baccalaureate degree nursing graduates: Implications for nursing education

Angela Elizabeth Silvestri-Elmore *[1], Patricia T. Alpert[2], Jennifer Kawi[1], Du Feng[1]

[1] School of Nursing, University of Nevada, Las Vegas, United States
[2] School of Nursing, Arizona College, Las Vegas, United States

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ABSTRACT

Objective: Nurses are charged with providing quality care to all patients. In part, as a result of current and projected demographic changes in the United States, as well as the varying needs and circumstances of individual patients, nurses are faced with the challenges of providing culturally competent care. Preparing to care for a culturally diverse population begins during the teaching/learning process in the nursing curriculum. The aim of the study was to determine which teaching method(s) (stand-alone course on culture, integration of cultural concepts, cultural immersion) is/are the best predictor(s) of cultural competence after graduation.

Methods: This study utilized a national sample. The target population was recent nursing graduates from programs accredited by the CCNE and ACEN in the U.S. A total of 126 cases (n = 126) were included in the final analysis. A survey method was used to collect data at one timepoint within 12 months of graduation. This study explored the difference between specified demographic variables and perceived level of cultural competence. This study also explored the differences in perceived level of cultural competence with and without a stand-alone course, integration of cultural concepts versus no integration, and with and without cultural immersion. Additionally, each variable was examined for their predictive ability and all study variables were analyzed simultaneously to assess their unique contribution to explaining the variance of perceived level of cultural competence.

Results: Findings revealed variables that had a significant effect on perceived level of cultural competence were race/ethnicity, number of months practicing as a graduate nurse, and participation in a cultural immersion experience.

Conclusions: Implications for nursing education include: (a) enabling faculty members to plan teaching methods pertaining to cultural content; (b) preparing graduates who are better able to serve the needs of current health care consumers with diverse backgrounds; and (c) determining a starting point for further research related to cultural competence.

Key Words: Culture, Cultural competence, Cultural competency, Curriculum, Baccalaureate nursing curriculum, Cultural diversity, Teaching method

1. INTRODUCTION

Ethnic diversity has markedly increased in the U.S. over the past 10 years.[1] For example, from 2000 to 2010, the Asian population increased by 43.3%, the Hispanic population grew by 43%, the Native Hawaiian and other Pacific Islander population increased by 35.4%, the American Indian or Alaskan Native population increased by 18.4%, and the African American population increased by 12.3%.[1] Minori-

*Correspondence: Angela Elizabeth Silvestri-Elmore; Email: angela.silvestri-elmore@unlv.edu; Address: School of Nursing, University of Nevada, Las Vegas, United States.

ties currently make up one-third of the U.S. population, and are expected to comprise 54% by 2050.[1] In addition to the influence of ethnic diversity, other cultural variables such as varying attitudes, beliefs, and life circumstances affect a person's health status, perspective on health care and their ability to access it.[2–6] The increase in minority populations, as well as the varying beliefs and practices of a highly diverse population, have attributed to the problem of disparities in health and health care.[2] Health disparities refer to the differences in the state of health of a person as it relates to a person's race/ethnicity, socioeconomic status, age, location, gender, disability status, and sexual orientation. Health care disparities refer to the differences in health care a person receives based on those same factors.[7]

The American Association of Colleges of Nursing[8] and National League for Nursing[9] indicated increased attention to cultural differences in the nursing curriculum can promote provision of culturally competent care. With knowledge of the best methods to teach cultural concepts, nurse educators can better prepare students to care for clients from culturally diverse backgrounds.

The AACN[10] set forth essentials for the baccalaureate undergraduate nursing curriculum, placing emphasis on the preparation of baccalaureate-educated nurses to care for clients across the lifespan, with special attention to changing demographics. Diversity in terms of ethnic and cultural background among health care consumers in the U.S. is increasing significantly; therefore, it is necessary to address cultural diversity in the undergraduate baccalaureate nursing curriculum to prepare future nurses to meet the needs of health care consumers. Given the persistence of disparities in health and health care, cultural competence inadequacies, and extraordinary demographic changes in student and patient populations, increasing diversity awareness in nursing education is critical.[9] Among other efforts, planning a nursing curriculum that focuses on teaching and learning cultural concepts to promote competent health care can assist in the reduction of disparities in health and health care in the U.S.

Knowing the best teaching methods to prepare a nursing graduate to care for culturally diverse populations and how to apply these methods are of importance to nurse educators in curricular planning efforts. To date, little research has been conducted on the most effective teaching methods. While the body of nursing knowledge continues to evolve on this topic, further research is needed to determine which methods will adequately prepare nursing graduates to address the needs of a constantly changing health care population. To address this need, the aim of the study was to determine which teaching method(s) among the most prevalent used as noted in the literature (stand-alone course on culture, integration of cultural concepts, cultural immersion) is/are the best predictor(s) of cultural competence after graduation.[11–13] Increased cultural competence among graduates can aid in the potential reduction of disparities in health and health care, and can contribute to the delivery of high quality, equitable health care to consumers in society today.

1.1 Significance

Although overall quality of health care is improving, access to health care and disparities are getting worse.[8] Despite recent efforts to decrease disparities in health and health care, the U.S. racial and ethnic minorities, which include any non-white race or ethnicity, receive lower quality health care than whites, even when insurance status, income, age, and severity of condition are comparable.[14] These notable disparities in health and health care suggest the need for increased attention to specific cultural differences and how these differences relate to health outcomes.[3–6]

Regardless of the method of implementation (integration of specific theory or model, integrated concepts throughout several courses, stand-alone course on culture), graduates are only achieving cultural awareness.[12] This further exemplifies the need to identify significant predictors in promoting cultural competence, so that modifications can be made in the curriculum to promote its attainment. In addition to the importance of adequate attainment of cultural competence by students and graduates, it is even more important for nurses in practice to be culturally competent. Nurses are accountable for the care they provide, and the provision of inadequate care based on prejudice or discrimination can result in disciplinary action.[15] These points indicate further research needs to be done on teaching methods to determine the most effective way of conveying cultural information in fostering cultural competence in nursing students and ultimately among nursing graduates.

1.2 Background

Studies found in the literature related to cultural competence in health care emphasized the need to use a systematic plan to integrate cultural concepts in the curriculum to enhance practice after graduation for the multifaceted needs of the emerging population.[2, 16–22] Armed with the knowledge of the best methods to promote cultural competence in the curriculum, faculty members can foster the transfer of learned material into practice after graduation.

Campinha-Bacote's model[23] is significant for nursing as a profession because it serves as a guide in the implementation and evaluation of cultural concepts in nursing schools and in practice. This model "requires health care professionals

to see themselves as becoming culturally competent rather than being culturally competent and involves the integration of cultural awareness, cultural skill, cultural knowledge, cultural encounters, and cultural desire".[2] Campinha-Bacote[2] notes achievement of cultural competence is a life-long journey, which is fluid and dynamic. Among her five constructs she cites desire as being the pivotal construct in her model. She also makes a case for differences and variation in cultural competence within as well as across cultural groups.

A helpful and successful framework for teaching and learning cultural competence is necessary to determine the effectiveness of student learning. Some studies that used this model showed its effectiveness in guiding teaching and learning methods, but there is a need for further research identifying predictors of cultural competence.[23–36]

Many approaches were noted in the literature related to cultural competence in the curriculum, and are summarized as follows: the need to critically evaluate implementation and evaluation methods of cultural concepts in the curriculum,[4,9,10,12,15,17,38,39] use of a stand-alone course on culture in the curriculum,[22,30] integration of cultural concepts throughout the curriculum,[12,13,40] use of service learning projects and cultural immersion projects to increase cultural competence,[11,12,41–47] lack of qualified faculty members to teach cultural concepts,[23,48] need for course material to adapt to the changing learning needs of students,[45] and international collaboration among teaching institutions to teach cultural competence.[6,35,39,49] While the above noted are a starting point, further research is needed to determine the best ways to address cultural competence in the curriculum. The aim of this study addressed this knowledge gap by focusing on specific teaching methods and their ability to predict perceived level of cultural competence.

1.3 Research questions

Given the current body of knowledge regarding cultural competence in the nursing curriculum, it is necessary to determine the most effective means of teaching cultural concepts to address the health care needs of current and evolving cultural groups in the nation. Since little is known about the most effective teaching methods, further research is needed. The research questions for this study are as follows: (1) How does a stand-alone course on cultural concepts in the curriculum influence the level of perceived cultural competence attained by nursing graduates of a baccalaureate program accredited by the CCNE or ACEN in the United States? (2) How does the integration of cultural concepts in the curriculum influence the level of perceived cultural competence attained by nursing graduates of a baccalaureate program accredited by CCNE or ACEN in the United States? (3) How does a formal cultural immersion experience in the curriculum influence the level of perceived cultural competence attained by nursing graduates of a baccalaureate program accredited by CCNE or ACEN in the United States? (4) Which variable(s) (demographic variables, teaching methods) best predict perceived level of cultural competence attained by nursing graduates of a baccalaureate program accredited by CCNE or ACEN in the United States?

2. METHODS

2.1 Research design

A cross-sectional descriptive design was used in this study. This design allowed for the collection of data and examination of relationships among variables at a fixed point in time[50] among nurses within the first 12 months of their graduation. This study design also identified each relevant variable's ability to predict perceived level of cultural competence and their unique contribution to the model. This study design does not address causality; however, it was not intended to explore cause and effect.

2.2 Measures

2.2.1 *Demographic data*

Information gathered were age, sex, race/ethnicity, primary language spoken, years lived outside of the U.S., number of years lived in U.S., location of nursing program, type of institution, type of degree program, additional degrees and focus, number of months at practice, and participation in orientation/residency program.

2.2.2 *Stand-Alone course*

A required course dedicated to cultural concepts. Number of credit hours was identified if it was included in the curriculum.

2.2.3 *Integration of cultural concepts*

The inclusion of cultural concepts throughout the curriculum. The degree of integration was measured by a stated percentage.

2.2.4 *Cultural immersion experience*

The inclusion of a cultural immersion experience in the curriculum. The number of credit hours and number of hours per week spent on this experience was identified.

2.2.5 *Perceived level of cultural competence*

The participant's perceived level of cultural competence was measured using the Clinical Cultural Competency Questionnaire (CCCQ, 2004). This tool has commonly been used in many health care disciplines since its creation.[47] The use of the CCCQ (2004) in nursing and implicated its ability to measure cultural competence among nurses.[41]

The CCCQ has 6 subscales and uses a five-point Likert scale (1 = not at all, 2 = a little, 3 = somewhat, 4 = quite a bit, 5 = very). The subscales include demographics (10 items), knowledge (16 items), skills (15 items), comfort with encounters/situations (12 items), attitudes (7 items), and previous education and training related to care of culturally diverse groups (12 items). The scores on the knowledge, skills, comfort with encounters/situations, and attitudes subscales were averaged, with total scores ranging from 60 to 300, with higher scores indicating a higher perceived level of cultural competence in that area.[51] The demographics and previous education and training subscales were adapted to include the characteristics of the participants for this study, and was focused on a nursing background rather than medical background. Internal consistency reliability for the CCCQ has been reported to be greater than Cronbach's alpha of 0.80.[51] In this study, the Cronbach's alpha coefficient was .94, further demonstrating acceptable internal consistency of this instrument. Construct validity of the CCCQ was previously addressed using principal components analysis (PCA). There are four subscales in this instrument and each subscale was subjected to PCA to determine if there was high correlation among items and if the analysis revealed a stable factor structure. The instrument demonstrated evidence of construct validity among the four scales.[51]

2.3 Participants, sampling procedures, sample size and power

The study utilized a national sample (n = 126). The target population was new nursing graduates (recently graduated within 12 months at the time of implementation of this study) from programs accredited by the CCNE and ACEN in the U.S. Graduates from programs accredited by the CCNE and ACEN were chosen for inclusion because these accrediting bodies have specifically set forth standards that programs must meet with regard to teaching cultural concepts in the curriculum.

All programs in the U.S. accredited by the CCNE and ACEN and programs that met inclusion criteria were identified, and the deans/directors/chairpersons' email addresses were obtained from each institutions' public website. A total of 623 programs accredited by CCNE were included and 197 programs accredited by ACEN/NLN were included. This recruitment strategy was used because graduates typically retain their school email address for 1 year, and email listserv or group email can easily be used. Inclusion criteria included the following: (a) graduation within the previous 12 months; (b) current licensure as an RN; (c) graduation from a CCNE or ACEN/NLN accredited baccalaureate nursing program; and (d) current employment in a health care facility and involvement in in direct patient care. After obtaining IRB approval, an initial email with the description and purpose of the study was sent to the dean, director, or chairperson of eligible schools. Recruitment materials were sent to the deans/directors/chairpersons of eligible institutions to forward to potential study participants. There were two emails sent to participants. The first was the initial recruitment letter. The second was the follow-up recruitment letter, which was sent two weeks after the initial recruitment email. Due to the need for more participant responses, the survey was re-opened for an additional two weeks after the initial closing date. The first recruitment letter was re-sent to deans/directors/chairpersons to forward to potential participants. Additionally, Facebook® was used as a method of advertisement. The deans/directors/chairpersons of eligible programs were asked to advertise the study on their institution's professional Facebook page if they had one.

Participants completed a 77-item electronic survey using Survey Monkey®. The survey consisted of five parts. Part I included the description of the study and consent. Part II included screening questions to determine eligibility to participate in the study. Part III contained questions that related to demographic data, including age, sex, race/ethnicity, primary language spoken, years lived outside U.S., nursing program location, type of institution, other degrees and focus, number of months practicing, orientation with cultural concepts, and residency program. Part IV contained questions related to teaching methods used in the curriculum for learning cultural concepts. Part V included the CCCQ (2004).

Power analysis was performed using G*Power 3.1, with a medium effect size, alpha level of 0.01, and power of 0.95. Considering 14 predictor variables (11 demographic variables and 3 teaching methods), it was determined a minimum of 123 participants were required to achieve adequate power for the intended statistical tests.[52] A previous review of the literature used the same data analysis methods and effect size to detect differences in the target population[53] and deemed this to be an adequate sample size. A response rate of 30% is typical for online research surveys, therefore a minimum of 410 surveys were sent to obtain adequate power.[54]

Over a period of 6 weeks of data collection, a total of 820 programs were invited to participate. A total of 244 participants responded to the survey. Of the total number that responded, 77 (31.5%) did not meet inclusion criteria and therefore were eliminated from the study. Fifteen (6.1%) did not graduate within 12 months of implementation of this study, 29 (11.9%) did not graduate from a baccalaureate program, and 33 (13.5%) were not currently working as RNs at the time of the study. Of the total 167 surveys returned,

41 (24.5%) participants did not complete the entire survey and information was missing on key study variables. Thus, a total of 126 valid cases (N = 126) were included in the final analyses which was adequate to achieve 0.95 power, based on a prospective power analysis conducted before the data collection.

2.4 Data analyses

Data screening, descriptive statistics, correlational analyses, and multiple regression were conducted. Reliability and validity assessments of the survey were also performed. Data were first screened to ensure study participants met inclusion criteria. Any responses indicating inclusion criteria were not met were deleted from the data set. Descriptive statistics (i.e. percentages, measures of central tendency) were used to describe the characteristics of the sample for this study and to evaluate the variables for any violation of assumptions. Descriptive statistics were run on each of the variables and categories were collapsed or deleted if there were a limited number of cases.[52] Frequency distributions were also run to allow examination of demographic data in relation to the dependent variable of this study. The frequencies were grouped to show how many of the participants fell within specific demographic categories. Preliminary analyses were conducted to ensure no violation of the assumptions of adequate power or sample size, equality of variances, multicollinearity and singularity, outliers, normality, linearity, homoscedasticity, and independence of residuals before the respective data analysis methods were conducted.

An independent (Student's) *t*-test was used to determine the group mean difference in perceived level of cultural competence between graduates who had a stand-alone course on culture and those who did not. A one-way between groups ANOVA was conducted to explore the differences of degree of integration on perceived level of cultural competence. Differences among mean scores on the CCCQ were examined. Independent (Student's) *t*-test was also used to analyze whether participation in a cultural immersion experience influenced perceived level of cultural competence. Differences among mean scores on the CCCQ were examined. Then, multiple regression was performed to evaluate predictors of cultural competence and examine the unique contribution of each variable. The predictors examined were demographic variables, stand-alone course, integrated cultural content, and cultural immersion.

3. RESULTS

3.1 Demographics

There were 2 demographic variables that demonstrated statistical significance in terms of their impact on perceived level of cultural competence: race/ethnicity and number of months practicing as a graduate RN. A one-way between groups ANOVA was conducted to explore the impact of race/ethnicity on perceived level of cultural competence. A statistically significant difference was noted: F (5, 120) = 5.357, p = .008, η^2 = 0.15. Post-hoc comparisons using Tukey's Honestly Significant Difference (HSD) test indicated the mean score for Caucasian/non-Hispanic/non-Latino participants (M = 195.400, SD = 25.384) was significantly different from the Hispanic participants (M = 240.000, SD = 15.684), indicating those who identified as Hispanic have a higher level of perceived cultural competence when compared to their Caucasian counterparts.

The number of months at practice ranged from 1 to 12 months, with a mean of 3.950 and standard deviation of 2.628. The group mean difference in perceived level of cultural competence between graduates based on number of months practicing (Group 1: 1-3 months; Group 2: 4-6 months; Group 3: 7-9 months: Group 4: 10-12 months) was assessed using a one-way between groups ANOVA. Differences among mean scores on the CCCQ were examined. A statistically significant difference was noted: F (3, 123) = 2.686, p = .05. η^2 = 0.06. Post-hoc comparisons using Tukey's Honestly Significant Difference (HSD) test showed the mean score for participants practicing 4 to 6 months (M = 194.020, SD = 24.473) was significantly different from the participants practicing 10 to 12 months (M = 226.170, SD = 27.229), indicating those practicing 10 to 12 months have a higher level of perceived cultural competence when compared to those practicing 4 to 6 months. Participants practicing 1 to 3 months (M = 200.500, SD = 28.798) and those practicing 7 to 9 months (M = 203.200, SD = 24.892) did not differ significantly from any of the groups. The trend in level of cultural competence shows a slight decline after the first 3 months of practice, and then a steady incline after 7 months of practice.

The following demographic variables were examined in this study; the corresponding highest reported frequency for each variable is noted in Table 1.

3.2 Teaching methods for cultural content

3.2.1 *Stand-Alone course*

Approximately half of participants (46.8%; n = 59) indicated they were required to take a stand-alone course in their nursing curriculum, and 53.2% (n = 67) indicated they were not.

3.2.2 *Integration of cultural concepts throughout the curriculum*

Almost all participants (98.4%; n = 124) stated cultural concepts were integrated throughout the curriculum. There were varying degrees of integration as indicated by the participants. Those reporting the higher percentage of integration (n = 3) also reported participation in a cultural immersion experience.

Table 1. Description of the Sample

Demographic	n(%) or Mean (SD)
Type of health care facility working for	92(73%) Acute care 7(5.6%) Rehabilitation 4(3.2%) Long-term care 3(2.4%) Home health 1(0.8%) Sub-acute care 22(17.4%) Other or more than 1 facility
How participant received study information	100(79.4%) Email from dean/director/chairperson 21(16.7%) Facebook 5(4%) Email from peer
Sex	110(87.3%) Female 16(12.7%) Male
Age in years	Mean 26.99 years (7.257) Range 21-48 years
Race/ethnicity	97(77%) Caucasian 7(5.6%) Asian/Pacific Islander 7(5.6%) Black or African American 6(4.8%) American Indian/Alaska Native 5(4%) Hispanic 4(3.2%) Other or more than 1 ethnicity
Primary language spoken, any other spoken languages*	126(100%) English 15(11.9%) Another language in addition to English 4(3.2%) Multiple languages in addition to English
Lived in countries besides the U.S.**	15(11.9%) Yes 111(88) No Range 1-7 years in another country
Nursing program location	36(28.6%) Central 36(28.6%) West 28(22.2%) South 26(20.6%) Northeast
Type of nursing program	64(50.8%) Private 60(47.6%) Public
Other degrees held besides nursing***	30(23.8%) Yes 96(76.2%) No
Number of months practicing	Mean 3.95 months (2.628) Range 1-12 months 1-3 months: 38 participants 4-6 months: 29 participants 7-9 months: 7 participants 10-12 months: 19 participants
Orientation in clinical practice on cultural concepts	47(37.3%) Yes 79(62.7%) No
New graduate residency program on culture	58(46%) Yes 68(53.9%) No

*If a participant reported speaking another language, they were asked what languages they spoke. Other languages spoken included German, Russian, Darija, Portuguese, Armenian, Afrikaans, Tagalog, Cantanese, and Mandarin.

**If a participant reported living in another country, they were asked to provide the number of years and the name of the other country where they lived. Of those who lived in another country, the range was from 1 to 7 years in that country. Countries included France, Germany, Russia, Ecuador, Canada, Israel, Spain, Brazil, Finland, South Africa, Africa, Germany, Iran, and Kuwait.

***If a participant held another degree besides a nursing degree, they were asked to report the focus and the percentage of focus on cultural content. Those degrees with the highest reported percentages were History, Intercultural studies, and Journalism.

3.3 Cultural immersion experience

There were 30.2% (n = 38) who indicated they participated in some cultural immersion experience, 64.3% (n = 81) stated they did not, and 5.6% (n = 7) failed to answer the question. Of those who participated in a cultural immersion experience, 24.6% (n = 31) provided further information on the number of credit hours of their experience. Three (2.4%) stated it was worth 2 credit hours, 15 (11.9%) stated it was worth 3 credit hours, 11 (8.7%) stated it was worth 4 credit hours, while 2 (1.6%) stated it was worth 5 credit hours. The number of hours per week spent on cultural immersion experience was reported to be between 1 and 20 hours over the course of a semester.

3.4 Findings of the research questions

Research Question 1

There was a total of 59 (46.8%) participants who indicated there was a required stand-alone course and 67 (53.2%) who indicated there was none. There was no significant difference in scores in cultural competence for those who were required to take a stand-alone course (M = 203.58, SD = 26.998) and those who were not [M = 196.73, SD = 27.228; t (124) = 1.41, p = .16, two-tailed].

Research Question 2

A total of 105 (83.3%) reported integration of cultural concepts in the curriculum. There was no statistically significant relationship to cultural competence: F (7, 118) = 1.373, p = .22. Although there was no statistically significant difference between groups of reported percentage of integration, it was of relevant interest to determine whether having integration had an effect on perceived level of cultural competence compared to those who had no integration. An independent (Student's) t-test was used to analyze this data which included 114 (90.5%) participants reporting they had integration and a total of 10 (7.9%) participants reporting having no integration. There was no significant difference in scores for those who reported integration (M = 200.32, SD = 27.900) and those who did not [M = 198.00, SD = 21.313); t (122) = .256, p = .79, two-tailed].

Research Question 3

A total of 38 (32.2%) participants indicated they participated in a cultural immersion experience and 80 (67.8%) indicated they did not. There was a significant difference in scores for those who did participate in a cultural immersion experience (M = 211.26, SD = 27.170) compared to those who did not [M = 196.06, SD = 25.054; t (116) = 2.99, p = .003, two-tailed]. The magnitude of differences in the means (mean difference = -15.2, 95% CI: 5.15 to 25.25) was medium (η^2 = .07).

Research Question 4

To determine the unique effect of each independent variable, while controlling for demographic variables showing statistical significance in prior analysis, hierarchical multiple regression was used to assess which teaching method (stand-alone course, integration of cultural content, cultural immersion experience) were significant predictors of perceived level of cultural competence, after controlling for race/ethnicity and number of months practicing. Demographic variables that were significant included race/ethnicity and number of months practiced. Therefore, these variables were controlled in the regression model to determine which teaching method (stand-alone course, integration of cultural content, and cultural immersion experience) was the best predictor of perceived level of cultural competence, and were entered first. In a block sequence, the remaining variables were entered into the model.

Preliminary analyses were conducted to assess whether the parametric assumptions were met. Race/ethnicity and number of months practicing were entered at Step 1, explaining 1.4% in perceived level of cultural competence. After the entry of the three teaching method variables at Step 2, the total variance explained by the model as a whole was 6.2%, F (5, 120) = 1.59, p = .17. The three teaching methods explained an additional 4.8% of the variance in perceived level of cultural competence, after controlling for race/ethnicity and number of months practicing, R squared change = .048, F change (3, 120) = 2.07, p = .11. In the final model, there were no variables showing statistical significance, however, the integration variable was closest to significance (β = .165, p = .074).

4. Discussion

4.1 Demographic data

This current study found that two demographic variables, race/ethnicity (p = .008) and number of months practicing (p = .05) demonstrated statistically significant differences among mean scores on the CCCQ. These findings indicated Hispanics scored higher when compared with non-Hispanics, and those practicing 10-12 months scored higher when compared with those practicing 4-6 months. Few research studies were located in the literature that investigated demographic information and perceived level of cultural competence. There was one study that found demographic data did not have any impact on students' perceived cultural self-efficacy.[17] Further analysis in this current study showed that those who identified as Hispanic had a higher score on the CCCQ (2004) when compared to their Caucasian/non-Hispanic/non-Latino counterparts. This may be due to the fact that those who are of Hispanic descent may speak Span-

ish to an extent, enabling them to care for patients who speak Spanish as a primary language in a more comprehensive and comfortable manner. It was noted that two of the four participants with self-identified Hispanic ethnicity were able to speak Spanish. The area health care providers noted to be most difficult in delivering culturally competent care is working with clients who speak a different language.[48]

Additional analysis of the number of months practicing showed that those participants practicing more months (10-12 months) scored higher on the CCCQ (2004) than those who practiced fewer months (1-6 months). This suggests that cultural competence increases with more time and experience at the bedside. However, as a component of becoming culturally competent and acknowledging that it is an ongoing process,[37] it would be helpful to refresh oneself on the theoretical underpinnings of cultural concepts as time goes on, and participation in life-long learning in this area would be recommended to ensure continued delivery of culturally competent care.[4]

Other demographic variables analyzed in this study showed no statistically significant difference in perceived level of cultural competence. These findings may be surprising because it is often assumed that age, speaking more than one language, and holding another degree in an area with a focus in cultural content would increase perceived level of cultural competence, indicating the need for further investigation in these areas. In addition, the trend in level of cultural competence showed a slight decline after the first 3 months of practice, and then a steady incline after 7 months of practice; this was an unexpected finding in the study, and further investigation is needed regarding length of time practicing and its influence on level of cultural competence.

4.2 Teaching methods

There were few research studies found on the effectiveness of a stand-alone course and its relationship or ability to predict level of perceived cultural competence; however, one that was located indicated no relationship between these variables.[37] In one study, students' remarks regarding use of a stand-alone course were positive in terms of student satisfaction, but this study did not look at perceived level of cultural competence for its subjects.[55] While this study also found no statistically significant difference between use of a stand-alone course versus non-use on perceived level of cultural competence, the results indicated those participants with courses that required a higher number of credit hours dedicated to cultural concepts had a higher mean score on the CCCQ (2004). This finding indicates the need for further investigation in this area utilizing a larger sample size. In addition, perhaps the need for a further understanding of the structure of these courses as well as the timing or location of these courses in the curriculum, and how this relates to perceived level of cultural competence should be examined.

Research has shown courses structured using Campinha-Bacote's framework[37] have been effective in promoting cultural competence.[23–36] Due to extensive evidence of the effectiveness of this framework, nurse educators should consider using it when structuring their courses. The timing of the course in the curriculum also needs to be considered. For example, if the stand-alone course were provided early in the curriculum, it could allow for more experience with application of learned material into practice during clinical or cultural immersion experiences prior to graduation.

There are few research studies on the effectiveness of integration of cultural concepts throughout the nursing curriculum. This study found no significant difference between integration of cultural concepts versus no integration on perceived level of cultural competence ($p = .22$). Research does suggest that integration is the most feasible teaching method due to time and resources,[13] therefore an organized method of implementation should be used. An additional strategy to utilize that could facilitate integration of cultural content would be to provide faculty workshops on teaching to enhance cultural competency, and then following-up with faculty peer evaluations of courses. Cultural competence would be a noted component of each class, and faculty would need to adequately address this in their respective courses. For example, a faculty member teaching health and physical assessment should address the cultural considerations with each body system taught. This ensures cultural concepts are addressed consistently throughout the semester, rather than at a fixed point in time, such as during one class period. Faculty peer evaluations could involve fellow faculty members assisting with planning cultural concepts and then sitting in on one to two classes held throughout the semester. This would allow evaluation of areas addressed adequately and those that need to be addressed more thoroughly. This would encourage faculty collaboration and faculty accountability for including cultural competence in an integrated manner throughout their courses. Further research is also needed on this approach to enhancing integration of cultural content throughout the curriculum.

While this method did not show predictive ability in perceived level of cultural competence when subjected to multiple regression analysis, this research study found a statistically significant difference between participation in a cultural immersion experience versus non-participation on perceived level of cultural competence using an independent (Student's) t-test ($p = .003$), with those who participated

scoring higher on the CCCQ. This is relevant since neither the stand-alone course nor integration of cultural concepts showed significant differences in perceived level of cultural competence. This indicates that these cultural immersion experiences can be valuable in promoting cultural competence and can potentially enhance delivery of culturally competent care while considering the intensity and cost of these immersion experiences. These findings impact nursing curriculum planning in including cultural immersion experiences in the curriculum, and are congruent with other findings in the literature.[11,41–46,56–64]

Given the importance of cultural immersion in promoting cultural competence among nursing students denoted in the literature, nursing faculty need to consider incorporating cultural immersion in the curriculum through strategic curriculum planning while remaining cognizant of available resources. Study abroad experiences are preferable, but require time, resources, and adequately prepared faculty facilitators. If this option is feasible, it can be used to promote cultural competence in nursing students. For programs that do not have this option due to the resource strain, local cultural immersion experiences can be considered beyond placements that are limited to inpatient hospital settings. With a current shift towards primary prevention, community health has become a new area for clinical placement for nursing students.[11,42] Local community placement experiences for nursing students providing exposure to various cultures can be considered as a component of the curriculum because it can allow for consistent interaction with members of another culture. Examples of cultural immersion experiences could include working at a homeless shelter, working at local free clinics, volunteering for health fairs, visiting senior centers, or any other collaborative community health efforts. Nurse educators need to consider the cultural make-up of their geographical area when planning clinical placements, and precedence should be placed on clinical sites with the most diverse patient populations.

In addition, the use of technology in providing cultural immersion experiences is becoming more prevalent in nursing programs.[45] Nursing programs in the U.S. can partner with nursing schools in other countries, and videoconferencing can be utilized to facilitate this collaboration. Students can talk about nursing practice issues in their respective countries, which will assist both parties in further understanding the complexities of the other culture(s). In addition, simulation is another technology that can be utilized to promote cultural competence, particularly with communication and assessment skills. Many nursing programs are using simulation in place of clinical placement throughout the course of the semester.[35]

5. LIMITATIONS OF THE STUDY

A limitation of this study related to the recruitment process. There were six deans/directors/chairpersons requiring additional IRB approval for their respective programs. Obtaining additional IRB approval was not possible with the timing of this study; therefore, these schools were not included in data collection. In addition, there was one school indicating the graduates did not have a school email address any longer, and there was no other method of contact to reach them to send recruitment materials. The researchers relied on deans/directors/chairpersons to distribute surveys, who were not asked to inform the researchers of their intent to participate. Therefore, it was not possible to know the potential number of students eligible to participate, and it was not possible to know how many students actually received the survey. For these reasons, a participant response rate could not be calculated.

Deans/directors/chairpersons were also asked to advertise the study on their program's Facebook page. Most programs did not have a well-established Facebook page; therefore, advertising through the program's Facebook page did not provide for a reliable recruitment method. Face-to-face contact for recruitment is favorable, however was not possible since this was a national study. Introducing this study in the final semester of the nursing program for nursing students may have resulted in greater participation. Facebook has the potential to be a viable method of recruitment; however, it does have limitations. Of the total sample, 11.9% (29) recruited with this method did not meet inclusion criteria (did not graduate from a baccalaureate program) and therefore were eliminated from the sample.

Recall bias is another potential limitation of this study, particularly for those participants who had graduated 12 months before taking the survey. Depending on the teaching method implemented and where it was implemented in the curriculum, as well as how long it has been since graduation, it is possible participants either under-reported or over-reported their perceived level of cultural competence. Varying degrees of previous exposure to cultural content was seen as another limitation of this study. Many participants had other degrees and were therefore exposed to additional cultural content in these programs. This study, however, did not find this variable as having a statistically significant difference on perceived level of cultural competence. Additionally, the design of this research study was considered a potential limitation. Conducting a longitudinal study in the future would address this limitation and should be considered for ongoing research

in this area.

6. SUMMARY

The best teaching methods to prepare a nursing graduate to care for culturally diverse populations is of great importance to nurse educators in their curricular planning efforts. To date, little research has been conducted on the most effective teaching methods. The needs of the health care population are constantly evolving, and nursing graduates need to be prepared to care for this population; therefore, further investigation to determine the best methods of preparation is needed. Based on the analyses, the results of this study support the idea that compared to a stand-alone course and integration of cultural concepts throughout the curriculum, cultural immersion can be a promising method in promoting cultural competence, thus allowing for improving care of marginalized populations and addressing disparities in health and health care.

Cultural immersion, in addition to the other strategies studied, needs to be investigated further so that nurse educators can utilize and implement these strategies efficiently and effectively. Additionally, just as graduate preparedness in caring for diverse populations is an issue, faculty preparedness in teaching graduates how to care for these populations is a further concern. Further research and a plan to address this issue are needed so faculty can be confident in their ability to promote cultural competence. Increased cultural competence among both graduates and faculty can ultimately aid in the reduction of disparities in health and health care, which can contribute to the delivery of high quality and equitable health care to the consumers in society today.

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CONFLICTS OF INTEREST DISCLOSURE

The authors declare they have no conflict of interests or competing interests.

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