Conclusion
Results from this research study continue to demonstrate the need for additional formal education and continuing education in providing culturally competent care to patients and families.

Keywords
Cultural competence, nurses, continuing education, research, policy

One major challenge confronting nurses is the provision of culturally competent care to an increasingly diverse society. Individuals seek healthcare with unique cultural needs, beliefs, and behaviors. Providing patient and family-centered care requires that nurses recognize the patient and family’s culture, the nurse’s culture, and how both affect the care-receiving and care-giving relationship.

Leininger is considered the pioneer in the field of transcultural nursing. In her seminal work Nursing and Anthropology: Two Worlds to Blend, Leininger (1970) emphasized the importance of culturally congruent nursing care. Leininger defines culturally congruent care as...
“culturally-based care knowledge, acts, and decisions used in sensitive and knowledgeable ways to appropriately and meaningfully fit the cultural values, beliefs, and lifeways of clients for their health and wellbeing, or to prevent illness, disabilities, or death” (as cited in McFarland & Wehbe-Alamah, 2014, p. 14).

Cultural competence is defined as “the ongoing process in which the healthcare professional (HCP) continuously strives to achieve the ability and availability to work effectively within the cultural context of the patient (individual, family, community)” (Transcultural Care Associates, 2015. Para 1). Furthermore, the Office of Minority Health (OMH) of the United States (US) Department of Health and Human Services (2010) defines cultural competency as “effectively providing services to people of all cultures, races, ethnic backgrounds and religions in a manner that respects the worth of the individual and preserves their dignity” (p. 3). Cultural competence is an ongoing process that involves accepting and respecting differences. It is more than acquiring the skills to work with culturally diverse people, but also working within the cultural context of the individual and family (Campinha-Bacote, 2007).

The major accrediting body for hospitals in the United States, Joint Commission (2010), emphasizes the importance of cultural competence in terms of safety, citing that health outcomes suffer when the cultural aspects of care are poorly understood. In addition, the American Association of Colleges of Nursing (AACN) strongly supports the education of nurses practicing in a multicultural environment and providing culturally appropriate care. The AACN outlines its expectations of education curriculum content and expected competencies in the documents, The Essentials of Baccalaureate Education for Professional Nursing Practice (2008) and The Essentials of Master’s Education in Nursing (2011).

**Conceptual Model**

Campinha-Bacote’s (2007) model, The Process of Cultural Competence in the Delivery of Healthcare Services was used to guide this inquiry. Campinha-Bacote asserts that cultural competence is a continuous, evolutionary process for health care providers. The focus of the model is on the process of achieving cultural competence. Campinha-Bacote proposed five interrelated constructs involved in the process of attaining cultural competence: cultural awareness, cultural knowledge, cultural skill, cultural encounters, and cultural desire. In this model, all constructs are equally important to the process of cultural competence.

Campinha-Bacote (2007) stresses that a health care provider makes a conscious decision to participate in the process of cultural competence, defining this as cultural desire. This desire to engage in the process leads to a self-assessment of the influence of one’s culture on values, beliefs, and behaviors (cultural awareness), and the subsequent search for knowledge or continuing education about different cultural groups (cultural knowledge). As part of this process, Campinha-Bacote emphasizes that health care providers must engage in direct interaction with different cultural groups (cultural encounters) in order to develop the ability to accurately and thoroughly assess cultural needs (cultural skill).

The model constructs are presented in an interrelated fashion. A health care provider may be working on each of these areas simultaneously, in order to improve cultural competence (Campinha-Bacote, 2007). This model provided the foundation for exploring cultural awareness, cultural knowledge, cultural encounters, and cultural skill, among a group of nurses from a southeastern state in the US. Campinha-Bacote (2007) developed the Inventory for Assessing the Process of Cultural Competence among Healthcare Professionals (IAPCC-R) to measure the five constructs of her model (http://transculturalcare.net). In this study, the Clinical Cultural Competency Questionnaire was selected because it addressed four aspects of Camp-
inha-Bacote’s model (awareness, knowledge, skills, and encounters). Although the IAPCC-R has a strong link to a conceptual model, due to limited funding for the project, the Clinical Cultural Competency Questionnaire was used in this study.

**Literature Review**

The US is experiencing immense growth and a rapidly changing demographic profile. From 2000 to 2010, the US Census Bureau (2011a) estimated a 9.7% increase in the total US population, with noted growth in all age, racial, and ethnic groups. Individuals of the Asian origin accounted for the fastest growing ethnic group (43.3%). The US Census Bureau (2011b) reported that between 2000 and 2010, the Hispanic population grew 43%, the Native Hawaiian/other Pacific Islander population grew 35.4%, the American Indian/Alaska Native population grew 18.4%, and the Black/African American population grew 12.3%, while the Whites only population only grew 5.7%.

In contrast, the Registered Nurse (RN) workforce is culturally, racially, and ethically dissimilar to the US population they serve. In 2010, the US Department of Health and Human Services (HHS), Health Resources and Services Administration (HRSA) reported that 63.7% of the population was classified as non-Hispanic White, while 83.2% of RNs were classified as non-Hispanic White. The RN workforce is predominately female (90.4%) with males accounting for only 9.6% of the RN population. The 2008 National Sample of Registered Nurses report (HHS, HRSA, 2010) estimated that Hispanics, Blacks, and American Indians/Alaska Natives are underrepresented in the RN population. However, the only ethnic group overrepresented in the RN population was Asians at 5.8% compared to 4.8% of the US population (HHS, HRSA, 2010). Some improvements toward increasing diversity of the nursing workforce has occurred, but lack of diversity in the RN workforce continues to be a challenge for the nursing profession (Frognner & Spetz, 2013).

Due to rapidly shifting demographics, more attention is being placed on minimizing health disparities. Health disparities based on age, gender, race, ethnicity, religion, ability, socioeconomic status, and sexual orientation occur within a broad social context and have an adverse effect on public health and health care delivery (Williams & Mohammed, 2013). The Institute of Medicine (IOM) (2010) cites that biases, stereotyping, and communication barriers, in addition to other factors, are contributing to health disparities within the US. In addition to improving health outcomes, Dilworth-Anderson, Pierre, & Hilliard, (2012) asserts that reducing health disparities is an essential action in achieving social justice.

Cultural diversity involves differences of individuals in regard to age, gender, race, ethnicity, religion, ability, socioeconomic status, and sexual orientation. For ethnic minority groups and the economically disadvantaged, access to safe, effective, timely, equitable, and patient-centered care is either not improving or is declining. Diverse ethnic groups are at a higher risk for chronic illnesses, have shorter life expectancies, and are less likely to receive vital preventative healthcare screenings (Agency for Healthcare Research and Quality, 2015; Richardson & Norris, 2010). As Williams et al. (2012) note, low socioeconomic status, facing individual or institutional discrimination, and the stress of experiencing racial biases in health care further contribute to disparities in access to health care and treatment.

Improving the level of cultural competence among health care providers is one step in helping to address health disparities. The nursing profession has begun to explore issues surrounding cultural competence, and the best methods to improve cultural competency skills. Most work in this area has been descriptive, exploring nurses’, health care providers’, and nursing faculty’s perceptions of cultural competence (Brathwaite, 2006; Mahabeer, 2009; Noble,
Engelhardt, Newsome-Wicks, & Woloski-Wruble, 2009; Schim, Doorenbos, & Borse, 2006a; Sealey, Burnett, & Johnson, 2006; Starr & Wallace, 2009).

Six descriptive studies have explored nurses or nursing faculty members’ perceptions of cultural awareness, knowledge, and skill. (Braithwaite, 2006; Mahabeer, 2009; Noble, et al., 2009; Schim, et al., 2006a; Sealey et al., 2006; Starr & Wallace, 2009). All six of the studies used a convenience sampling technique, with small to moderate sample sizes (31 to 163 participants). In three of the studies, researchers found that nurses had moderate levels of self-perceived cultural awareness and cultural skill, but this did not translate into high levels of cultural competence (Mahabeer; Noble, et al.; Starr & Wallace). Among nursing faculty, Sealy and colleagues (2006) found a high level of cultural awareness, but few faculty reported cultural encounters. Sealey et al. also found that the combination of inadequate cultural encounters and lack of cultural knowledge accounted for an 87% variance in cultural competence level among nursing faculty.

A few studies have examined number of years of nursing experience as a variable impacting cultural competence levels (Braithwaite, 2006; Mahabeer, 2009; Noble, et al., 2009). Mahabeer (2009) and Noble et al. (2009) found that more years of professional experience, and frequent encounters with different cultural groups increased cultural awareness. In contrast, Braithwaite (2006) found that less experienced nurses gained the most knowledge during a cultural competence education intervention, and had a higher level of cultural competence in comparison to their more experienced counterparts.

Another variable of interest has been the influence of educational level on cultural competence. Researchers have reported a significant relationship between higher levels of educational attainment and cultural competence among RNs (Braithwaite, 2006; Mahabeer, 2009; Schim, et al., 2006a; Schim, Doorenbos, & Borse, 2006b; Starr & Wallace, 2009). Sealey and colleagues (2006) reported that very few nursing faculty cited formal training in cultural competence, reinforcing the need to further explore the relationship between education/training and cultural competence level.

In summary, researchers conducting descriptive studies of cultural competence have found moderate levels of cultural awareness among nurses of various specialties. A common finding is that a basic level of cultural awareness does not necessarily translate into higher levels of cultural competence. There is evidence of significant relationships between number of years of experience and cultural competence, and level of educational attainment and cultural competence. Building upon past research, this study assessed cultural awareness, knowledge, skill, and comfort in patient encounters/situations among a group of southeastern nurses with varying levels of education, years of experience, and diverse practice settings.

**Purpose**

The purpose of this study was to assess the level of cultural awareness, knowledge, skill, and comfort nurses have with encounters of patients and families from diverse populations in a southeastern state in the US. In addition, the amount of education and training these nurses have obtained in cultural diversity was assessed.

**Research Questions**

1. What are the perceived levels of cultural awareness, knowledge, skill, and comfort nurses have with encounters of patients and families from diverse populations in a southeastern state of the US?

2. What level of cultural diversity education and training have nurses obtained who live and work in a southeastern state of the US?
3. What is the relationship between nurses’ demographic variables (age, years licensed, highest nursing degree, and self-identified race or ethnicity) and their perceived level of cultural awareness, knowledge, skill, and comfort caring for patients and families from diverse populations in a southeastern state of the US?

Methods

Design
This study employed a prospective, cross-sectional, descriptive study design using a survey methodology.

Sample
A list of mailing addresses for all active registered nurses in a southeastern state in the US was obtained from the state board of nursing. The list was divided into two groups: nurses with undergraduate and graduate degrees. Nurses with graduate degrees were removed from the undergraduate degree group to ensure each group was exclusive. Surveys were mailed to a sample of 2,000 registered nurses: 1,000 nurses with earned undergraduate degrees and 1,000 with earned graduate degrees in nursing. In order to include nurses from all parts of the state, and to be representative of nurses working in different geographic locations, zip codes were categorized to delineate the percent of nurses with undergraduate and or graduate degrees living in each county. A stratified sampling method was then used to determine the percentage of undergraduate and graduate degree nurses in each county and the representative sample needed from each county. Next, a random sample of undergraduate and graduate degree nurses was selected from each county using Statistical Package for the Social Sciences (SPSS) software.

An a priori power analysis to determine sample size was computed by means of G*Power version 3.0.5 (Faul, Erdfelder, Lang, & Buchner, 2007) using an alpha 0.05 significance level, a moderate effect size (d = .30), and an estimated power of 80% based on four predictor variables. Based on the analysis, a minimum sample size of 85 was needed.

Protection of Research Participants
Institutional Review Board approval was obtained to ensure the protection of the research participants. Informed consent was used to explain the ethical responsibilities of the researchers, ethical rights of participants, purpose and aims of the study, time commitment required to complete the survey, potential risks, and benefits. Implied consent to participate in the study was acknowledged by returning the completed survey by mail, or by completion of the survey online. All responses to the surveys were anonymous and no IP addresses were collected for online surveys.

Participants completing the survey were given an option to participate in a raffle drawing for one of three gift cards in the amount of $50.00 each. Participants wishing to be included in the raffle completed a gift card raffle postcard and mailed back the postcard in a pre-addressed, stamped envelope. The gift card raffle postcard and the completed survey was separated immediately upon receipt and stored separately to maintain anonymity.

Data Collection Procedures
A research packet was mailed to potential participants, that included the cover letter consent, survey, gift card raffle postcard, and a return self-addressed, stamped envelope. Participants had the option of completing the survey and returning it by postal mail, or completing the survey online.

Instruments

Demographic questionnaire. A 9-item demographic questionnaire was developed by the researchers. Question topics included, but were not limited to, age, gender, culture/ethnicity, highest nursing degree, years licensed as a
nurse, and employment status

Clinical cultural competency questionnaire. The Clinical Cultural Competency questionnaire initially developed by Like (2004) and revised by Krajic, Strabmayr, Karl-Trummer, Novak-Zezula, S., & Pelikan (2005) was used to measure nurses’ perceptions of their cultural awareness, knowledge, skill, and comfort levels related to caring for patients of culturally diverse populations. The awareness (3 questions), knowledge (10 questions), skills (15 questions), and comfort (encounters/situations) (16 questions) subscales are based on a 5-point Likert scale from “not at all” (0) to “very” (4). Responses to questions on the first four subscales are averaged, and higher scores indicate higher levels of awareness, knowledge, skill, and comfort with caring for patients of culturally diverse populations. In addition, a fifth subscale measured nurses’ education and training levels in cultural diversity based on a 5-point Likert scale from “none” (0) to “a lot” (4). Questions on the education and training subscale inquired about the amount of education and training nurses’ received in their undergraduate nursing degree program, advanced degree nursing program (if applicable), work setting, and continuous professional education outside of the work setting. Each item is measured independently, and higher scores indicate more education and training.

Data Analysis

All analyses were conducted with the Statistical Package for Social Sciences for Windows 18.0 with a level of significance set at 0.05. Descriptive statistics were calculated to describe the sample population and the scores from the Clinical Cultural Competency questionnaire. Inferential statistics, including regression analyses, were conducted to determine the amount of variance accounted for by the independent variables of age, years licensed, highest nursing degree, self-identified race or ethnicity, and Clinical Cultural Competency questionnaire subscales respectively.

Due to some surveys having incomplete data sets, the authors chose to include all surveys in order to preserve as much data as possible. Therefore, the sample size varies for some of the subscales on the Cultural Competence questionnaire results.

Results

Sample

Of the 2,000 surveys mailed, 59 were returned undeliverable and 1 declined to participate. A total of 374 surveys were received, indicating a 19.3% response rate. A majority of the surveys were completed and returned by mail, while 33 were completed online.

The average age of the participants was 48.0 years (SD = 11.6). The majority were female (91.7%), and identified themselves as Caucasian (83.7%). The average years licensed as a nurse was 22.4, (SD = 12.3) and the majority held a Master’s degree (57%). Most participants worked in a hospital setting (43%), and the majority did not speak additional languages other than English (81.8%) (Table 1).

Cultural Competence Questionnaire

Reliability of the Clinical Cultural Competency questionnaire was assessed. In this study, Cronbach’s alpha scores were computed for each subscale including: knowledge (.91), skill (.96), comfort (encounters/situations) (.94), and awareness (.87). The alpha scores indicated an acceptable to high degree of internal consistency.

Awareness. Due to formatting confusion on one question in the awareness subscale on the research instrument, there were only 139 completed surveys used to compute descriptive statistics. The participants reported a moderate level of cultural awareness with a mean score of 3.15 (SD = .65).

Knowledge. The participants (n = 370) reported a moderately low level of cultural knowledge. The mean knowledge subscale score was
### Table 1.

**Demographic Characteristics of the Participants (N = 374)**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>48.0</td>
<td>11.6</td>
</tr>
<tr>
<td>Years of practice</td>
<td>22.4</td>
<td>12.3</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>343</td>
<td>91.7</td>
</tr>
<tr>
<td>Male</td>
<td>26</td>
<td>7.0</td>
</tr>
<tr>
<td>Missing</td>
<td>5</td>
<td>1.3</td>
</tr>
<tr>
<td>Self-Identified Culture Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>42</td>
<td>11.2</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>4</td>
<td>1.1</td>
</tr>
<tr>
<td>Caucasian</td>
<td>313</td>
<td>83.7</td>
</tr>
<tr>
<td>Filipino</td>
<td>2</td>
<td>0.5</td>
</tr>
<tr>
<td>Japanese</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td>American Indian</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td>Hispanic, Latino, or Spanish Origin</td>
<td>6</td>
<td>1.6</td>
</tr>
<tr>
<td>Other or missing</td>
<td>5</td>
<td>1.3</td>
</tr>
<tr>
<td>Highest Nursing Degree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diploma RN</td>
<td>16</td>
<td>4.3</td>
</tr>
<tr>
<td>Associate Degree</td>
<td>48</td>
<td>12.8</td>
</tr>
<tr>
<td>Baccalaureate Degree</td>
<td>86</td>
<td>23.0</td>
</tr>
<tr>
<td>Master’s Degree</td>
<td>213</td>
<td>57.0</td>
</tr>
<tr>
<td>Doctorate</td>
<td>9</td>
<td>2.4</td>
</tr>
<tr>
<td>Missing</td>
<td>2</td>
<td>0.5</td>
</tr>
<tr>
<td>Primary Work Setting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospital</td>
<td>161</td>
<td>43.0</td>
</tr>
<tr>
<td>Nursing Education</td>
<td>16</td>
<td>4.3</td>
</tr>
<tr>
<td>Occupational Health</td>
<td>5</td>
<td>1.3</td>
</tr>
<tr>
<td>Insurance Claims/Benefits</td>
<td>2</td>
<td>0.5</td>
</tr>
<tr>
<td>Nursing Home/Extended Care Facility</td>
<td>8</td>
<td>2.1</td>
</tr>
<tr>
<td>School Health Services</td>
<td>8</td>
<td>2.1</td>
</tr>
<tr>
<td>Ambulatory Care</td>
<td>86</td>
<td>23.1</td>
</tr>
<tr>
<td>Policy, Planning, Regulatory, Licensing</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td>Other</td>
<td>87</td>
<td>23.3</td>
</tr>
<tr>
<td>Current Employment Status</td>
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<td></td>
</tr>
<tr>
<td>Full Time</td>
<td>264</td>
<td>70.6</td>
</tr>
<tr>
<td>Part Time</td>
<td>75</td>
<td>20.1</td>
</tr>
<tr>
<td>Per Diem</td>
<td>8</td>
<td>2.1</td>
</tr>
<tr>
<td>Not currently working but not retired</td>
<td>13</td>
<td>3.5</td>
</tr>
<tr>
<td>Retired</td>
<td>14</td>
<td>3.7</td>
</tr>
<tr>
<td>Other Languages Spoken Besides English</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>306</td>
<td>81.8</td>
</tr>
<tr>
<td>Yes</td>
<td>68</td>
<td>18.2</td>
</tr>
</tbody>
</table>
2.23 (SD = .82).

Skill. Three hundred sixty-nine participants completed the skill subscale. Overall, the participants perceived their cultural skill to be moderately low with a mean score of 2.21 (SD = .91).

Comfort during Encounters/Situations. The participants (n = 371) reported a moderately low level of comfort during cultural encounters and situations. The mean score in the comfort subscale was 2.21 (SD = .84).

Education and training. The majority (84.2%) of participants indicated they received “some” to “no” cultural diversity training in their basic nursing education program. Only 14.9% of participants indicated that they received “quite a bit” to “a lot” of cultural diversity training in their basic nursing education program. Over half of the participants (68.6%) indicated they received “some” to “no” cultural diversity training in their advanced degree nursing program, while 31.4% indicated they received “quite a bit” to “a lot” of cultural diversity training in their advanced degree program. The majority (71.4%) of participants indicated they received “some” to “no” cultural diversity training at their work setting, with only 27.5% indicating they received “quite a bit” to “a lot” of cultural diversity training at their work setting. Less than a quarter (23.5%) of participants indicated they received “quite a bit” to “a lot” of cultural diversity training at professional continuous education programs outside their work setting (Table 2).

Regression Findings. Four separate simul-

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>None</th>
<th>A Little</th>
<th>Some</th>
<th>Quite a Bit</th>
<th>A Lot</th>
<th>Missing</th>
</tr>
</thead>
<tbody>
<tr>
<td>In your basic (first degree) nursing education program</td>
<td>374</td>
<td>12.1(49)</td>
<td>30.2(113)</td>
<td>40.9(153)</td>
<td>11.2(42)</td>
<td>3.7(14)</td>
<td>0.8(3)</td>
</tr>
<tr>
<td>In advanced degree nursing education programs (Master’s, Doctorate), if applicable</td>
<td>293*</td>
<td>17.7(52)</td>
<td>15.7(46)</td>
<td>35.2(103)</td>
<td>20.1(59)</td>
<td>11.3(33)</td>
<td>*</td>
</tr>
<tr>
<td>In specific training at your work setting</td>
<td>374</td>
<td>21.1(79)</td>
<td>23(86)</td>
<td>27.3(102)</td>
<td>16.3(61)</td>
<td>11.2(42)</td>
<td>1.1(4)</td>
</tr>
<tr>
<td>In continuous (professional) education outside your work setting</td>
<td>374</td>
<td>23(86)</td>
<td>26.2 (98)</td>
<td>25.1 (94)</td>
<td>16(60)</td>
<td>7.5 (28)</td>
<td>2.1(8)</td>
</tr>
</tbody>
</table>

*This question was only answered by those participants who have attended advanced degree programs.
Simultaneous multiple regression analyses were conducted to predict participants’ cultural competence awareness, cultural competence comfort with culturally diverse encounters/situations, cultural competence skill, and cultural competence knowledge as dependent variables based on their age, years licensed, highest nursing degree, and self-identified race or ethnicity (predictor variables). Only the regression analysis that was conducted to predict participants’ cultural competence knowledge based on their age, years licensed, highest nursing degree, and self-identified race or ethnicity was statistically significant. The overall model significantly predicted the dependent variable, cultural competence knowledge, $R^2 = .028$, $R^2_{adj} = .017$, $F(4,352) = 2.512$, $p = .042$. This model accounted for 17% of the variance in the dependent variable, cultural competence knowledge. Review of the $\beta$ weights specify that only one predictor variable, highest nursing degree, $\beta = .138$, $t(352) = 2.527$, $p = .012$, significantly contributed to the model, with higher nursing degree predicting greater cultural competence knowledge (Table 3).

**Discussion**

As Campinha-Bacote (2007) asserts, cultural competence is a continuous, evolutionary process for health care providers. This study explored the level of cultural awareness, knowledge, skill, and comfort nurses have with encounters of patients and families from diverse populations in a southeastern state in the US.

Nurses in this study reported a moderate level of cultural awareness, but perceived themselves to have a low level of cultural knowledge, skill, and comfort in patient encounters and situations. These findings are similar to past studies of nurses, where researchers have found that participants score the highest on cultural awareness level (Mahabeer, 2009; Noble, et al., 2009; Sealey et al., 2006; Starr & Wallace, 2009), but have low to moderate levels of cultural knowledge, skill, and comfort in encounters or situations (Mahabeer, 2009; Sealey et al., 2006). Cultural awareness is defined as the “deliberate self-examination and in-depth exploration of one’s biases, stereotypes, prejudices, assumptions and ‘isms’ that one holds about individuals and groups who are different from them”

<table>
<thead>
<tr>
<th>Regression Variable</th>
<th>B</th>
<th>SE B</th>
<th>$\beta$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (in years)</td>
<td>.011</td>
<td>.008</td>
<td>.154</td>
</tr>
<tr>
<td>Self-identified Race or Ethnicity</td>
<td>-.013</td>
<td>.032</td>
<td>-.022</td>
</tr>
<tr>
<td>Highest Nursing Degree</td>
<td>.126</td>
<td>.050</td>
<td>.138*</td>
</tr>
<tr>
<td>Years Licensed</td>
<td>-.003</td>
<td>.007</td>
<td>-.044</td>
</tr>
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</table>

<p>| | | | |</p>
<table>
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<tr>
<td>$R^2$</td>
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<td></td>
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<tr>
<td>Adjusted $R^2$</td>
<td>.017</td>
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<td></td>
</tr>
<tr>
<td>$F$ ($p$-value for model)</td>
<td>2.512</td>
<td>($p = .042$)</td>
<td></td>
</tr>
</tbody>
</table>

*p < .05. **p < .01.
education, obtaining a higher nursing degree predicted greater cultural competence knowledge in this study. This finding is also supported in previous research (Schim, et al., 2006a; Starr & Wallace, 2009; Mahabeer, 2009). In past research, a significant association between level of educational attainment and cultural competence knowledge has been noted among hospice nurses (Schim, et al., 2006a). Researchers have also reported a significant association between level of educational attainment and cultural competency among public health nurses (Starr & Wallace, 2009). Mahabeer (2009) found that 52.6% of hemodialysis nurses in her study stated that level of education had an influence on cultural competence level. It is essential to increase both the amount and quality of cultural diversity training in formal nursing education programs.

In this study, years of nursing experience did not predict higher levels of cultural knowledge. This finding differs from other research studies (Brathwaite, 2006; Noble et al., 2009). Noble and colleagues (2009) studied nurse midwives, finding a significant association between years of experience and cultural competency level. Interestingly, Brathwaite (2006) examined the effect of an educational intervention on cultural knowledge, finding that years of experience had a weak negative effect on cultural knowledge. Number of years of experience may or may not correlate with increased comfort in cultural encounters, greater cultural knowledge, or cultural skill. A key variable is the amount of education and continued workplace training, rather than the number of years of practice. Both novice and experienced nurses would benefit from increased education and training.

Limitations

There are a few limitations to this study. The majority of the sample was female and Caucasian. In addition, the sample was recruited from one state located in the southeastern US. There-
fore, the study results can only be applied to the sample studied, limiting generalizability to other populations.

Another limitation to the study is the demographic differences in the study sample versus the state RN population demographics. Approximately 49.3% of nurses in the study were 50 years or older versus 60% of the state RN population being 50 years or older (University System of Georgia Board of Regents, Center for Health Workforce Planning & Analysis, 2010). In addition, approximately 93.3% of the state’s active RN population holds an undergraduate degree while 6.7% hold a graduate degree (Georgia Board of Nursing, Active RN File, 2011). In this study, 40.1% of the nurses held an undergraduate degree while 59.9% held a graduate degree (Georgia Board of Nursing, Active RN File, 2011). Self-identified race/ethnicity were comparable between the study sample and state RN population with the majority of nurses being Caucasian (83.7%, 79.4%, respectively), then followed by African American (11.2%, 15.8%, respectively) (University System of Georgia Board of Regents, Center for Health Workforce Planning & Analysis, 2010).

The participants used self-report as the method for answering the study questionnaires. Self-report data may be controversial because of its subjective nature, and disagreement exists whether self-report methods are effective in retrieving unbiased data. Advantages of self-reports are that they provide the researcher with a simple, economical method to gain information on social, situational, and behavioral topics. Disadvantages include recall bias and the tendency for participants to provide only socially desirable responses (Polit & Beck, 2016).

Lastly, due to formatting confusion on the awareness subscale, only 139 surveys were completed. This number was significantly less than the sample sizes for the other subscales. Although there were fewer surveys used to compute the awareness subscale statistics, the number was well above the minimum necessary sample size of 85 based on our power analysis.

**Implications for Nursing**

Results from this study have implications in the areas of education, research, and policy. Table 4 provides some suggested strategies based on the three areas.

**Education**

Implications for nursing practice are in the areas of professional continuing education and formal nursing education programs. Nurses have an ethical and professional responsibility to obtain appropriate and necessary continuing education in order to provide holistic, evidence-based, culturally competent care to their patients. In addition, some organizations require nurses to obtain continuing education in the area of cultural competence, while other organizations do not. It is important for nurses to assess their own cultural awareness and examine their own belief systems to fully embrace the concept of culturally competent care. Nurses need to recognize cultural differences in the vast diversity of their patient populations.

Professional continuing education opportunities are numerous, with easy access on the worldwide web. Programs such as *Culturally Competent Nursing Care: A Cornerstone of Caring*, offered through The Office of Minority Health of the United States Department of Health and Human Services, and *Cultural & Spiritual Sensitivity: A Learning Module for Health Care Professionals*, offered through the Healthcare Chaplaincy organization, are both available online. Furthermore, numerous online articles are available to nurses to obtain continuing education credit on cultural diversity and competency topics. Additionally, nurses can apply for the Transcultural Nursing certification offered through The Transcultural Nursing Society.

In this study, the majority (84.2%) of participants indicated they received “some” to “no” cultural diversity training in their basic nursing education program. Formal nursing education
### Table 4.

**Education, Research, and Policy Suggested Strategies**

#### Education

- **Professional Continuing Education**
  - Online education program: *Culturally Competent Nursing Care: A Cornerstone of Caring*, offered through The Office of Minority Health of the United States Department of Health and Human Services
  - Online education program: *Cultural & Spiritual Sensitivity: A Learning Module for Health Care Professionals*, offered through the Healthcare Chaplaincy organization
  - CEU Articles: cultural diversity and competency topics
  - Transcultural Nursing certification offered through The Transcultural Nursing Society

- **Formal Nursing Education**
  - Infusion of cultural appropriate care modules throughout the curriculum
  - Inclusion of required or elective courses related cultural diversity and cultural appropriate care
  - Clinical experiences with ethnically diverse patients
  - Cultural immersion experiences
  - Simulation exercises
  - Community guest lecturers
  - Study abroad
  - Partnerships with universities of other countries for student exchange programs

#### Research

- Studies examining the effectiveness of cultural based intervention programs on nurses’ knowledge, awareness, and skills
- Studies exploring the effect of cultural competency on patient outcomes and health disparities
- Studies on patients’ perceptions following cultural competency training of healthcare workers to determine the effectiveness of the training, and translation of the intervention to practice settings
- Studies examining the effect of delivering culturally competent care on nursing-sensitive outcomes

#### Policy

- Mandated cultural competency education through the re-licensure process
- IOM Recommendations
  - Remove scope-of-practice barriers
  - Expand opportunities for nurses to lead and diffuse collaborative improvement efforts
  - Implementation of nurse residency programs
  - Increase the proportion of nurses with a baccalaureate degree to 80 percent by 2020
  - Double the number of nurses with a doctorate by 2020
  - Ensure that nurses engage in lifelong learning
  - Prepare and enable nurses to lead change to advance health
  - Build an infrastructure for the collection and analysis of interprofessional health care workforce data.
  - Recruitment of a more racially and ethnically diverse nursing workforce
  - Enrollment of diverse students in healthcare associated professionals

Sources: Benkert et al., 2011; Drevdabl et al., 2008; IOM, 2010; Larson et al., 2010; Long, 2012; Ruddock & Turner, 2007
programs need to ensure that curriculum content covers culturally appropriate care throughout their program to better prepare nurses to care for the diverse patient populations they are now encountering in their practice settings.

One suggestion is to create cultural competency modules that are integrated into each nursing course. The modules could focus on a particular aspect of providing culturally appropriate care relevant to each course. For example, in the first introductory nursing course, students could be offered a module that allows them to identify and acknowledge their own cultural heritage and reflect on their own cultural values and biases that may impact their own attitudes about providing culturally appropriate care. During a pharmacology course, faculty could offer a module that presents a family case study incorporating culturally-based complementary and alternative therapies.

Another strategy is the incorporation of cultural immersion experiences or study abroad programs in nursing curriculum (Larson, Ott, & Miles, 2010; Long, 2012). Immersion experiences and study abroad experiences provide opportunities for students to learn about other cultures within the context of the culture resulting in improved cultural self-awareness and sensitivity (Charles, et al., 2014; Harrowing, Gregory, O’Sullivan, Lee, & Doolittle, 2012).

**Research**

Additional research needs to be conducted to examine the effectiveness of culturally-based intervention programs on nurses’ knowledge, awareness, and skills. In addition, further research needs to be conducted to explore the effect of cultural competence on patient outcomes and health disparities (Truong, Paradies, & Priest, 2014). Research needs to be conducted on patients’ perceptions of cultural competency following training of healthcare workers to determine the effectiveness of the training, and translation of the intervention to practice settings (Benkert, Templin, Schim, Doorenbos, & Beli, 2011). Furthermore, research should be conducted on the effect of delivering culturally competent care on nursing-sensitive outcomes.

**Policy**

State Boards of Nursing should mandate cultural competence education as part of the nursing re-licensure process to enhance cultural and linguistic competencies of nurses. This may improve the quality of care provided to diverse populations. The IOM Future of Nursing report (2010) recommends the following policy changes to move nursing forward which hopefully will enhance culturally competent care and reduce health disparities: 1) remove scope-of-practice barriers, 2) expand opportunities for nurses to lead and diffuse collaborative improvement efforts, 3) implement nurse residency programs, 4) increase the proportion of nurses with a baccalaureate degree to 80 percent by 2020, 5) double the number of nurses with a doctorate by 2020, 6) ensure that nurses engage in lifelong learning, 7) prepare and enable nurses to lead change to advance health, and 8) build an infrastructure for the collection and analysis of inter-professional health care workforce data. Furthermore, to better meet the healthcare needs of diverse populations in the future, the nursing workforce needs to be more diversified (Douglas et al., 2011; IOM, 2010). Policies focusing on recruiting a more racially and ethnically diverse nursing workforce is a key step in addressing health disparities and culturally competent care. In addition, policies should be implemented to address the enrollment of diverse students in healthcare associated professionals.

**Conclusions**

In today’s healthcare environment, nurses must provide culturally competent care to their patient populations. In order to provide patient and family-centered care, the first step is for nurses to recognize their own level of cultural awareness, knowledge, skill, and comfort caring for diverse patients and families. Nurses in
this study reported a moderate level of cultural awareness, but perceived themselves to have a low level of cultural knowledge, skill, and comfort in patient encounters and situations. Furthermore, nurses reported very little cultural diversity education in their basic nursing programs or place of work. Implications in the areas of education, research, and policy have been outlined to identify strategies to increase cultural competent care and reduce health disparities.
References


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