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Cultural Competence Training for Clinical Staff: Measuring the Effect of a One-Hour Class on Cultural Competence

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Abstract

In an environment of changing demographics and health care disparities, it is essential that nurses continue to develop competence in providing care across cultures. This article presents the findings of a pilot project to measure and compare self-reported cultural competence scores before and after participation in one of the core classes of a cultural competence curriculum. Cultural competence of the staff of a patient care unit ($N = 98$) was assessed prior to the class, at 3 months, and at 6 months posteducation using the Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals–Revised. The results demonstrated that following an educational intervention the participants self-reported a statistically significant increase ($p = .03$) in cultural competence within the category range of cultural awareness. Providing cultural competence education may better equip nurses to care for patients from diverse cultures.

Keywords

cultural competence, education, evaluation, research, continuing education/staff development, transcultural health

Introduction

The ever-changing demographics and individual needs of patients within health care settings today require that nurses be equipped with the resources and knowledge to provide culturally competent care. Culturally competent care is defined by Leininger (1995) as

> the cognitive based assistive, supportive, facilitative or enabling acts or decisions that are tailor-made to fit with individual, group, or institutional cultural values, beliefs and life ways in order to provide or support meaningful, beneficial and satisfying health care or well-being services. (p. 106)

Dunn (2002) refers to cultural competence as the ability to communicate between and among cultures and to demonstrate skill outside one's culture of origin. Cultural competence includes one's attitude of empathy for others, an attitude of curiosity, an attitude of basic respect for self and others, and an acknowledgment of the intrinsic value of all humans (Campinha-Bacote, 2003).

Within health care systems, care is regularly provided to individuals whose ethnicity, language, religion, and culturally based beliefs about health and illness are quite different from those of the care provider. Although Hispanics, African Americans, and Native Americans represent more than 25% of the U.S. population, fewer than 6% of these minorities are represented in the field of health care delivery (Cooper & Powe, 2004). The commitment to meeting the needs of patients and their families is an essential component to providing excellence in care. To provide culturally competent care, knowledge and resources are necessary to understand individual differences and similarities. This ability to provide culturally competent care is important in order to meet each patient's unique needs.

Background and Significance

Many institutional mission and vision statements provide the foundation for every patient to receive high-quality, compassionate, and respectful care. Culture is integral to every person's life. It defines how patients perceive their world and their health; therefore, culture is inextricably bound to quality care. In an effort to remain consistent with institutional mission and vision statements, which serve as the

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framework for educational activities, nursing staff development should include education on delivering culturally competent care.

There are also external factors that support the need for continuing education in cultural competence. These factors include current and changing demographics nationally and locally; evidence of health care disparities among diverse ethnic, racial, and cultural backgrounds; and legislative, regulatory, and accreditation mandates (National Center for Cultural Competence, 2005). In July 2005, the Board of Directors of the American Organization of Nurse Executives approved their position statement on diversity that advocates that patients and staff have the right to expect consideration of their individuality within the context of one's culture and society as a whole.

Barriers to cultural competence are associated with health care professionals' lack of awareness, knowledge, and skills and the organization's lack of support. Treating all patients the same without taking cultural health practices and beliefs into account has resulted in treatment nonadherence, poor client satisfaction, diagnosis errors, recovery complications, and generally poor outcomes (Taylor, 2005). Taylor (2005) suggests that educating staff on cultural competence, the use of language services, and organizational support of cultural competence contributes to providing culturally competent care to patients and their families.

Literature Review

Globalization has increased diversity in populations throughout the world. Rapidly changing demographics in both rural and urban areas (Larson, 2009) increase the need to competently work with and care for people of different cultures. There are approximately 23 million people living in the United States who have limited English proficiency (Larson, 2009). The U.S. population comprises approximately 67% non-Hispanic White, 12% Black, 14% Hispanic, 1% American Indian/Alaska Native, and 4% Asian (Mead et al., 2008). Health care, perhaps more than any other U.S. service institution, has had to address the cultural competence educational needs of its staff in order to meet the needs of its changing clientele (French, 2003).

Leininger (1997) defines culture as "the lifeways of an individual or group with reference to values, beliefs, norms, patterns, and practices that are learned, shared, and transmitted intergenerationally" (p. 38). Campinha-Bacote (2003) specifies that culture is more than ethnicity and nationality and asserts that a cultural group can be viewed as one's religion or politics, physical build or size, generational age, sexual orientation, gender, social or economic status, occupation, employment status, employment organization, and disabilities or health issues. People may look or seem outwardly similar, yet be dissimilar in cultural beliefs, practices, and values (Purnell & Paulanka, 2003). Leininger (1991) stresses that "human beings of any culture in the world have a right to have their culture care values known, respected and appropriately used in nursing" (p. 21). Cultural issues are crucial in all aspects of health care because culture shapes health-related beliefs, values, and behaviors (Engebretson, Mahoney, & Carlson, 2008). Communication errors, conflicts, misunderstandings, ethical dilemmas, and disconnects can occur if nurses are unaware of patient value systems and can result in deleterious care or inferior outcomes (Al-Atiyyat, 2009; Donnelly, 2000; Galanti, 2004).

The Minnesota Department of Health, Division of Health Policy–Adverse Health Events (2009) reports that adverse events can often be traced to communication discrepancies. When the health care provider and the patient come from different cultures, the miscommunication potential is magnified. A study for The Joint Commission by Divi, Koss, Schmaltz, and Loeb (2007) illustrates that communication errors are more often the cause for adverse events in limited English proficiency patients than in English proficient patients. An exploratory research study by Boi (2000) found that nurse participants believed that poor communication and inadequate knowledge of the patient's culture created barriers adversely affecting safe, quality patient care. Nurse–patient communication and interactions are vital elements of the framework of cultural competency.

Through seeking awareness, knowledge, understanding, and acceptance of self, as well as others, a culturally competent nurse will understand and accept the dynamics of cultural differences and collaborate with the patient and family to deliver care that is consistent with the patient's culture (Snyder & Niska, 2003). Campinha-Bacote (1999) stresses that cultural competence is a complex, ongoing process, a journey of becoming; it is not an end point or a destination. Becoming culturally competent requires an openness and humility that allows the health care provider to learn from the patient (Campinha-Bacote, 2003).

Although the literature promotes the importance of culturally competent care, the best method for achieving this remains undefined (Brathwaite, 2005; Chrisman, 2007; Flowers, 2004; Leininger, 2006; Purnell & Paulanka, 2003; Snyder & Niska, 2003; Taylor, 2005). For five decades, Madeleine Leininger has advocated that nurses need to be *trained* to deliver transcultural care. Cultural competence training promotes transculturally competent nursing practice that results in culturally congruent care: care that is centered on and consistent with the individual patient's cultural beliefs and needs and is crucial for ultimate patient satisfaction and safe, quality care (Leininger, 2006).

Cultural competence education provides nurses the crucial skills related to communication, teamwork, and problem solving as they work with individuals of differing backgrounds. These skills are essential to quality patient interactions in an increasingly multicultural patient population and workforce (Bamberg, Pitts, & Maloney, 2002).

The nursing profession is still in the process of determining the most effective way to educate nurses in cultural competence. In addition to the traditional classroom setting, distance learning, simulation, and immersion, as well as

technology and web-based teaching modules have been explored. Also noted in the literature are nursing exchange programs, which uses shared learning experiences between nurses from differing cultures (Leinonen, 2006).

Engebretson et al. (2008) assert that combining the development of cultural competence skills with long-standing values of addressing cultural needs within the health care organization is essential to success and can prompt support for cultural competence training. Key attributes of cultural competence within health care organizations include the following: a workforce that reflects the patient population served; health care services located conveniently for the community; language assistance; regular staff education regarding culturally and linguistically appropriate services; methods to track and report on quality of care within racial, ethnic, and cultural groups; and inclusion of the community in goal setting, planning, and care delivery (Beach, Saha, & Cooper, 2006).

Brathwaite (2005) describes a cultural competence course for public health nurses that used Campinha-Bacote's model of cultural competence. Components of this cultural competence model are cultural awareness, cultural knowledge, cultural skill, cultural encounter, and cultural desire. In this model, cultural competence is defined as a "process in which the health care provider continuously strives to achieve the ability to effectively work within the cultural context of a client/individual, or family, or community" (Campinha-Bacote, 2003, p.14). In Brathwaite's study, an adapted version of Campinha-Bacote's Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals–Revised (IAPCC-R©) self-assessment tool was used to measure cultural competence. The results of this research indicate that a short-term course can be used to develop levels of cultural competence in public health nurses. The researchers also reported a sharp increase in the level of cultural competence immediately following the completion of the designed courses with a continual increase at the 3-month follow-up time point. The outcome of this study showed that the majority of participants moved from a self-reported culturally aware level to culturally competent and proficient levels following the educational intervention.

The literature, a changing society, and the authors' institutional goals all presented a strong case for developing educational opportunities focused on cultural competence and diversity. Despite the differences found in teaching strategies and curricula, the findings of previous studies were consistent in demonstrating a positive effect on increasing cultural awareness and cultural competence skills. A cultural competence curriculum was developed and implemented with the purpose of increasing the cultural knowledge and skills of the nursing staff.

Method

The study was designed to assess the impact of cultural competence training within the Department of Nursing at a large Midwestern medical center. The specific aims of the study were to estimate the baseline cultural competence in this population and to assess the impact of the training on the subjects' cultural competence as measured by the IAPCC-R administered at 3 and 6 months posttraining.

The cultural competence training consisted of a 1-hour class session titled, "What's Culture Got to Do with It?" The goal of the class was to promote the understanding of cultural competence and demonstrate impact on quality of care. During the class, participants explored their cultural heritage, issues related to health disparities, and implications for health care providers (see Tables 1 and 2).

Evidence-based educational techniques supporting the acquisition of cognitive and affective skills needed to achieve a higher level of cultural awareness were used as a model for the class session. The use of these techniques are noted in literature by various authors in the field of cultural competence training (Bamberg et al., 2002; Brathwaite, 2005; Campinha-Bacote, 2003; Kardong-Edgren, 2007; Taylor, 2005).

This project was reviewed and approved as a minimal risk study by the organization's institutional review board. Participation in the survey was voluntary, and completion indicated consent to participate in the study. In 2007, participants from two nursing units were invited but not required to participate in this study. The nursing units were identified from a convenience sample of those who had not already received the defined class. A total of 111 Department of Nursing staff participated in the education. Study subjects included registered nurses, patient care assistants, and unit secretaries.

Camphina-Bacote's IAPCC-R was administered in a paper-and-pencil form by one of the researchers to participants prior to the class session and at 3 months and 6 months posteducation. Completion of the IAPCC-R tool took approximately 10 minutes. All survey results were anonymous. Permission to uses the IAPCC-R was obtained from the author. The IAPCC-R is designed to measure the level of cultural competence among health care providers. It is a 25-item tool that uses a 4-point Likert-type scale to measure the five cultural constructs of desire, awareness, knowledge, skill, and encounters. Scoring of items indicate the level of cultural competence, with higher scores indicating a higher level of competence. Scores of the IAPCC-R are classified into four levels of cultural competence: Culturally Proficient (91-100), Culturally Competent (75-90), Culturally Aware (51-74), and Culturally Incompetent (25-50).

Several studies testing the reliability and validity of the IAPCC-R have been published. Validity of the tool was established by a panel of experts in transcultural health care (Brathwaite, 2005; Campinha-Bacote, 2003; Capell, Dean, & Veenstra, 2008; Doutrich & Storey, 2004). Reliability of the IAPCC-R is supported by numerous studies (Bowen, Haras & Holman, 2006; Brathwaite, 2005; Gulas, 2005; Kardong-Edgren, 2007; Koempel, 2003; Nobel, 2007; Wilbur, 2008) with Cronbach's alpha coefficients ranging

Table 1. Learning Objectives of Class titled: "What's Culture Got to Do With It?"

At the end of the presentation, the participant will be able to:

- Identify how health beliefs are formed
- Recognize how assumptions may hinder development of a culturally based plan of care
- Identify one's own culture
- Give examples of health disparities
- State at least three reasons why a health care provider needs to be culturally competent.

Table 2. Class Methodology

Description of Teaching Method	Domain of Learning	Time
Cultural Simulation (The Clown Culture™): A short cultural simulation at the beginning of the class session. A group of instructors play the clown culture interaction with the group followed by a debriefing session to discuss the class reaction and feelings on the clown culture's communication style, traditions, and values. Copyright 2007, Mayo Foundation for Medical Education and Research.	Affective	15 minutes
Lecture with questions: Cover definitions of culture and cultural competency and discuss institutional values, demographics, and cultural resources (importance of the Joint Commission and the Culturally and Linguistically Appropriate Services standards). Point out the importance of a cultural assessment and cultural assumptions and explore the definition, examples, and impact of health disparities.	Cognitive	20 minutes
Exploring One's Own Culture exercise: Participants are asked to think of a time when their own cultural heritage influenced their health decisions. Discussion with drawing or writing words to reflect their cultural heritage.	Psychomotor affective	10 minutes
Card Sorting Exercise: People under stress tend to use ingrained behaviors to deal with the stress. In this exercise, we attempt to show how we may unconsciously make assumptions and decisions without seeking further information. Four individuals are asked to volunteer to sort a deck of scrambled playing cards into an organized fashion over a period of 1 minute. As they sort the cards, the instructor asks questions and introduces distractions to their concentration in order to simulate how information is processed during stress. There is no right way to sort the cards; the exercise was to show how routine behaviors and thought processes can become.	Psychomotor	5 minutes
Evaluation and Questions		10 minutes
Total		60 minutes

Note: Card Sorting and Exploring One's Own Culture exercises were adapted from the workshop, "Addressing Health Disparities: Faculty Development for Cultural Competency Education," by S. Mutha and T. A. Magaña (personal communication, September 8, 2004).

from .75 to .93. The IAPCC-R has been used in clinical settings to study the effectiveness of educational programs related to cultural competence (Brathwaite, 2005; Chipps, Simpson, & Brysiewicz, 2008).

In addition to the IAPCC-R, individuals completed a demographic form that included role (nurse, patient care assistants, or unit secretaries), age, gender, race/ethnicity, years of nursing experience, education, travel outside of the United States, and participation in other cultural classes offered by the institution. Each IAPCC-R (at baseline, 3 months, and 6 months) was administered anonymously without unique identifiers to provide a link between forms.

Data Analysis

Descriptive statistics were reported using means and standard deviations for IAPCC-R scores and frequencies and percentages for categorical variables. Demographic characteristics were compared across the three time points (baseline, 3 months, and 6 months). Chi-square or Fisher's exact tests were used to determine statistical significance with the following demographics: role within the Department of Nursing, gender, ethnicity, and travel outside of the United States. The Wilcoxon rank-sum test was used to determine statistical significance for years of service within stated role, age, education, and number of additional cultural classes taken. Cultural competence scores were compared across three time points using a one-way analysis of variance (ANOVA). Because the overall p value was statistically significant, pairwise comparisons were then performed between each postclass time point and the baseline score using a two-sample t test. Multiple linear regression was then used to examine differences across time while adjusting for demographic variables. Analysis was done using JMP software (version 8.0 SAS Institute Inc., Cary, NC). P values $<.05$ were considered statistically significant.

Results

Data for the three time points (baseline, 3 months, and 6 months) are summarized in Table 3. Although 111 subjects attended the education session, only 98 completed all items required to calculate a total IAPCC-R score at baseline and thus constitute our analysis sample at that time point. At

Table 3. Demographic Characteristics

	Baseline (*N* = 98)		3 Months (*N* = 72)		6 Months (*N* = 75)	
	n	%	*n*	%	*n*	%
Role						
Registered nurse	85	87	68	94	68	91
Patient care assistant	9	9	2	3	3	4
Unit secretary	4	4	2	3	4	5
Years nursing						
<1	10	12	1	2	4	6
1-3	17	20	21	31	12	18
4-6	20	24	15	22	19	29
7-10	5	6	5	7	8	12
11-20	13	16	11	16	9	13
20-30	8	10	9	13	11	16
>30	10	12	8	9	4	6
Missing	2		4		8	
Age (years)						
20-30	49	50	32	45	52	43
31-40	16	16	15	21	17	23
41-50	19	19	14	20	14	19
51-60	13	13	10	14	12	16
>60	1	1	0	0	0	0
Missing			1			
Gender						
Female	90	92	65	90	68	91
Male	8	8	7	10	7	9
Race/ethnicity						
Caucasian	92	94	69	96	70	93
Hispanic	0	0	1	1	1	1
African	2	2	0	0	1	1
Asian/Pacific Islander	2	2	2	3	3	4
Indian	1	1	0	0	0	0
Other	1	1	0	0	0	0
Caucasian/non-Caucasian						
Caucasian	92	94	69	96	70	93
Non-Caucasian	6	6	3	4	5	7
Education						
High school	4	4	0	0	1	1
Certificate/vocational	9	9	4	6	4	5
Associate degree in nursing	24	24	20	28	23	31
4-year college	10	10	7	10	8	11
Diploma	3	3	4	6	2	3
Baccalaureate degree in nursing	44	45	36	50	35	47
Master's degree	4	4	1	1	2	3
Travel outside the United States						
Yes	62	63	45	63	41	55
No	36	37	27	38	33	45
Missing					1	
No. of additional culture classes						
0	65	66	33	46	43	57
1	17	17	27	38	17	23
2	6	6	8	11	9	12
3	5	5	2	3	2	3
4	5	5	1	1	3	4
5	0	0	1	1	1	1
Mean (*SD*)	0.7 (1.1)		0.8 (1.0)		0.8 (1.2)	

Table 4. Multiple Linear Regression Model (IAPCC-R) Adjusting for Demographic Variables ($N = 216$)

Source	R^2	beta	SE	df	t Ratio	p
Overall	0.21					
Predictor variable						
Intercept		84.6	6.77		12.49	<.0001
Time period—3 months		2.34	0.98	1	2.38	.02
Time period—6 months		2.08	1.0	1	2.08	.04
Classes		1.40	0.39	1	3.61	.0004
Non-Caucasian		−4.31	1.98	1	−2.17	.03
Age		−0.50	0.72	1	−0.70	.48
Female		2.22	1.48	1	1.50	.14
Education		0.76	0.32	1	2.39	.02
No. of countries visited		0.45	0.24	1	1.86	.06
Role—PCA		−12.12	7.32	1	−1.66	.10
Role—RN		−21.66	6.06	1	−3.57	.0004
Years		−0.17	0.45	1	−0.38	.70

Note: IAPCC-R© = Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals–Revised; PCA = private care assistant; RN = registered nurse.

Table 5. IAPCC-R Results

Time Point	N	No. Culturally Aware (%)	No. Culturally Competent (%)	IAPCC-R Mean (SD)
Baseline[a]	98	89 (90.8)	9 (9.2)	65.4 (6.6)
3 Months	72	63 (87.5)	9 (12.5)	67.8 (6.3)
6 Months	75	67 (89.3)	8 (10.6)	67.6 (6.6)

Note: IAPCC-R© = Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals–Revised.
a. Baseline scores were derived before the class.

Table 6. Results of One-Way Analysis of Variance—Difference in Means of IAPCC-R Over the Three Time Points ($N = 245$)

Source of Variation	df	Sum of Squares	Mean Square	F	p
Time point	2	310.20	155.10	3.64	.03
Error	242	10299.34	42.56		

Note: IAPCC-R© = Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals–Revised.

3 and 6 months, the numbers returning the IAPCC-R survey and completing all items were 72 and 75, respectively.

Although no significant differences in demographic characteristics were identified across the three time points, we fit a multiple linear regression model (see Table 4) adjusting for the variables of age, gender, education, role, years of experience, travel outside the United States, number of additional cultural classes taken, and race/ethnicity to eliminate the possibility that even small differences could confound the comparison of scores across time. After adjusting for these variables, time period remained statistically significant, $F(2, 204) = 3.45$, $p = .03$. Specifically, the adjusted average difference between the baseline and the 3 months score was 2.34 points ($p = .02$); the same estimate was 2.09 points ($p = .04$) for 6 months compared with baseline.

Table 5 illustrates IAPCC-R data from baseline and follow-up surveys. These numbers reflect those IAPCC-R surveys that were complete and could therefore receive a score. Baseline cultural competence results according to the IAPCC-R indicates that the majority of participant scores (91%) were in the category range of cultural awareness, but only 9% reached the level of cultural competence. The mean IAPCC-R baseline score was 65.4. At 3 months, the majority of participants (88%) again scored within the category range of cultural awareness with a mean of 67.8, and the level of culturally competence increased to 12.5%. Finally, at 6 months, scores remained at a similar level with a mean score of 67.6. Cultural competence scores differed significantly across the three time points, with both 3- and 6-month scores significantly higher ($p = .02$ and $p = .03$, respectively) than the baseline score. Refer to Table 6 for results of one-way ANOVA comparing the difference in means of the IAPCC-R over the three time points. There was no significant difference between the mean scores for 3 and 6 months ($p = .87$).

Exploratory analysis of the mean scores for individual questions within the IAPCC-R was completed to determine change over time and to guide the direction of future culture-related curriculum. As illustrated in Table 7, participants scored the lowest in the baseline IAPCC-R questions related to ethnic pharmacology, involvement in cultural/ethnic groups outside of the health care–setting role, and biologic variation among different ethnic groups. For Questions 6 and 23, there was no significant improvement at 3 or 6 months relative to baseline. For Question 10, related to biologic variation, however, both 3 and 6 months demonstrated significantly higher mean scores ($p = .009$ and $p = .004$, respectively) compared with baseline. Table 8 shows the results of the one-way ANOVA for the difference in mean scores for each of the three questions over time.

Discussion

The role of culture in the lives of individuals is undisputed in its significance. Decisions made on many levels, including health care decisions, are greatly affected by one's culture and the perspective that the culture has taught the individual. With the changing demographics within the United States, institutions and organizations have had to address the impact that culture has on the individuals they serve. Education can serve to bridge the gap between the status quo and the newly presented reality. An understanding of cultural differences is not innate, but it requires focus, attention, and education. The profession of nursing as well as the health care team in general should prepare themselves for changing demographics.

Table 7. Lowest Scoring IAPCC-R Questions

IAPCC-R Question	Baseline[a] Score, Mean (*SD*)	3-Month Score, Mean (*SD*)	6-Month Score, Mean (*SD*)	*F*	*p*
Question 6: I am knowledgeable in the area of ethnic pharmacology.	1.35 (0.53)	1.51 (0.57)	1.48 (0.61)	2.19	.11
Question 10: I am knowledgeable in the area of biological variations among different ethnic groups.	1.84 (0.68)	2.10 (0.63)	2.13 (0.68)	5.38	.005
Question 23: I am involved with cultural/ethnic groups outside of my health care–setting role.	1.59 (0.85)	1.68 (0.85)	1.78 (0.88)	1.11	.33

Note: IAPCC-R© = Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals–Revised.
a. Baseline scores were derived before the class.

Table 8. Results of One-Way Analysis of Variance—Difference in Means of IAPCC-R Questions 6, 10, and 23 Over the Three Time Points

Source of Variation	*df*	Sum of Squares	Mean Square	*F*	*p*
Question 6 (*N* = 267)					
Time point	2	1.43	0.71	2.19	.11
Error	264	86.17	0.33		
Question 10 (*N* = 266)					
Time point	2	4.76	2.38	5.38	.005
Error	263	116.24	0.44		
Question 23 (*N* = 269)					
Time point	2	1.63	0.82	1.11	.33
Error	266	195.58	0.74		

Note: IAPCC-R© = Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals–Revised.

The pilot research project sought to present an education program and measure the self-reported cultural competence of its participants at baseline, 3 months, and 6 months. The tool used in this assessment was developed by Dr. Josepha Campinha-Bacote, the IAPCC-R. The results of the pilot study show that this educational intervention positively affected the level of self-reported cultural competence within the category range of cultural awareness over time ($p = .03$).

The gender and ethnicity of the study participants were similar to the Department of Nursing within our institution. Demographics of the study indicate that the percentage of male participants was 7%, and the percentage of Caucasian participants was 92%. The most recent national data reports that White nurses made up 83.2% of the U.S. registered nurse population and that male nurses comprised 6.6% (U.S. Department of Health and Human Services, 2008). The same source reports an average age of 47.0 years nationally, which is older than the majority of the participants in the study. It should be noted that the study participants included not only registered nurses but also patient care assistants and unit secretaries.

The region in which the study participants reside has historically consisted of a homogeneous population primarily identifying its ancestral lineage from Scandinavian heritage. Within the past 15 years, this community has experienced a significant influx of diverse groups of individuals coming from both within and outside of the United States. Although this historically, culturally insulated scenario could have resulted in baseline data that identified the participants as being culturally incompetent, this shift in population demographics may have contributed to increasing awareness of the existence and significance of cultural differences, along with the need to be culturally competent. The medical center where the study took place serves individuals from a variety of cultures (Middle Eastern, Somali, and Southeast Asian, among others). The exposure to a variety of cultures may have had an impact on the participants' scores beginning in the culturally aware category of the IAPCC-R cultural competence scale.

The class "What's Culture Got to Do With It?" was a foundation class designed to allow participants to explore their cultural heritage, identify issues related to health disparities, and implications for health care providers—in essence, answering the question, what's culture got to do with health and how health care is delivered? The delivery of the course content focused on the affective domain of learning with a goal of increasing cultural awareness. The class also included a cultural simulation that placed the class participant in a different culture for a brief period and included a debriefing period. The class content and interaction served to bridge a gap between the mystery of cultural difference and how that difference translates into culturally competent health care. At the time of the study, this class was a required component of the cultural competence curriculum, and the subjects did not independently sign up for the class.

There was a high response rate to the IAPCC-R at 3 months (73%) and 6 months (76%). The high response rate may be attributed to the tool being administered at scheduled education days for the patient care units being assessed. The relatively short time frame between baseline and the 3-month IAPCC-R survey results may have contributed to retaining

both information and cultural insight provided in the educational offering. Although statistically insignificant, the 6-month decline in the mean IAPCC-R survey results may suggest that sustained or periodic educational sessions may be necessary to continue toward cultural competence. At the time that this study occurred, there were other cultural competence classes offered for all Department of Nursing employees. Comparing respondent experience with other classes across the three time points showed a small, but not statistically significant, increase at follow-up relative to baseline. If study subjects had participated in the other classes between the time of the initial assessment and subsequent assessments, this could have had an impact on the IAPCC-R results. However, our findings regarding the significant increase in scores at follow-up remained significant after adjusting for the number of classes attended. Likewise, if the subject chose to work independently to improve his or her cultural care of patients following the class intervention, the IAPCC-R scores could have also been positively affected, which could not be controlled for in this study.

At baseline, subjects were within the culturally aware category of the cultural competence scale according to the IAPCC-R results. Following the class intervention, a statistically significant increase in the culturally aware category was demonstrated, but subjects did not advance to the next category level of culturally competent. Awareness is not the same as cultural competence, but needs to be present before cultural competence can occur. The class may have awakened cultural awareness in the participants, and the postintervention survey may reflect that the participants realize that there is much they do not know related to culture. The class may have informed participants that they possess a bias or prejudice of which they were not aware or did not acknowledge until the class information was presented. The responses in the 3- and 6-month surveys may have reflected a sense of humility with a realization that the individual has much to learn related to caring appropriately for patients from other cultures.

Participants scored the lowest in the IAPCC-R related to ethnic pharmacology, biological variations among different ethnic groups, and involvement in cultural/ethnic groups outside of the health care–setting role. Education related to ethnic pharmacology and biological variations may be appropriate for future educational initiatives for nurses within the authors' institution.

"What's Culture Got to do With It?" courses were taught by a core group of instructors who were part of the overall cultural competence curriculum design and development. The instructors followed a script and PowerPoint™ presentation developed specifically for the class. However, there were different teams of two instructors for the various classes. It is uncertain if a variety of instructors with varying presentation styles had any impact on the IAPCC-R scores. More interaction within the class itself was associated by the instructors as a more positive experience for the participants, and the level of interaction and discussion could have affected the overall tone and outcome of the class.

Limitations

Although the IAPCC-R has been found to be a valid and reliable tool as described previously, the accuracy of self-assessment needs to be considered. Multiple studies, mostly conducted in medicine, indicate that self-assessment is not always consistent with observed behavior (Davis et al., 2006; Fernandez et al., 2004; Fitzgerald, White, & Gruppen, 2003; Langendyk, 2006; Moret, Tequi, & Lombrail, 2004). As suggested by Seright (2007), participants may have also felt pressure to respond "correctly" to the items on the self-assessment. Rather than relying strictly on subjective reports, observations of the participants' behavior may provide more meaningful and objective data.

Unique identifiers were not attached to each survey, and therefore, individual comparative analysis over time could not be made. Although the follow-up response rates were relatively high for surveys, participant attrition after the baseline survey was still approximately 25% and could be a concern in interpreting this study's findings. However, the demographic characteristics of respondents remained similar across the three time points suggesting that the follow-up survey respondents were representative of those at baseline.

Conclusion

This pilot research study was designed to assess the level of self-reported cultural competence of its participants using the IAPCC-R developed by Campinha-Bacote. This education program was designed to support and enhance the nursing care of all patients by promoting the understanding of cultural competence and demonstrating its impact on quality of care.

Study findings suggest incorporating additions to the curriculum related to ethnic pharmacology and biological variations.

Future research should include analysis of IAPCC-R at baseline, 3 months, 6 months, and 1 year and beyond to determine if subjects maintain or increase scores with no further educational interventions. The addition of qualitative research to focus on changes in the subjects' beliefs and behaviors may provide additional data to support the importance of cultural competence education as it relates to providing culturally appropriate care to patients. Future studies should consider incorporating patient satisfaction survey data to correlate self-reported cultural competence with the actual patient experience.

Since the subjects in this study were younger than the national average age of registered nurses, additional research is needed to determine if there is a generational impact on cultural competence education and IAPCC-R scores. Additional information related to the ethnicity of the health care

provider and their self-reported level of cultural competence may give insight into a predictive model of education and experience and their impact on cultural competence.

Declaration of Conflicting Interests

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