


2016

A Quantitative Examination of the Relationship Between Cultural Competence and Patient Satisfaction Scores

Kelley Ann Lovati
Walden University

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Walden University

College of Management and Technology

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Kelley Lovati

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Walden University
2016

Abstract

A Quantitative Examination of the Relationship Between Cultural Competence and
Patient Satisfaction Scores

by

Kelley A. Lovati

M.S.A., Central Michigan University, 1993

B.S.A., Central Michigan University, 1990

Proposal Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Philosophy
Management

Walden University

December 2016

Abstract

As the U.S. population continues to diversify, hospitals need to understand and care for patients of diverse backgrounds and provide quality service for positive patient satisfaction scores. The purpose of this nonexperimental quantitative retrospective survey design was to determine what relationship exists between cultural competence initiatives (CCI) and patient satisfaction scores as reported by the Hospital Consumer Assessment of Health Care Providers and Systems (HCAHPS) survey in U.S. hospitals. The theoretical framework for this study was based upon CCI and patient satisfaction through the lens of service quality. The research questions were created to understand the relationship between CCI and patient satisfaction scores and weigh the cultural competence components relative to each other and their effect on patient satisfaction. The study's data was gathered from secondary sources: the HCAHPS and "Diversity and Disparities: A Benchmark Study of U.S. Hospitals in 2013" (DDBS). Through a multiple linear regression analysis, the findings were CCI does have a significant but weak relationship with patient satisfaction. Leadership, a component of CCI, also resulted in a significant but weak relationship with patient satisfaction. The social change implications of this study are that by understanding the diverse cultural needs of its customers, health care organizations will be able to improve patient satisfaction scores. Understanding the relationship between CCI and patient satisfaction scores will aid health care organizations in determining if these initiatives are worth an investment of resources. A broader look at the significance to practice with improved patient satisfaction scores is an increased bottom line, marketing ability, and consumer attraction for hospitals.

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Dedication

This dissertation is dedicated to my family. Just as Papa instilled in me that education is the key to success and the stepping stone to anything one would want to accomplish in this life; it is my hope I inspire the same thoughts in my children. It has been a long, hard journey that each of them had to make sacrifices along the way to allow me the time and concentration to complete this lifelong goal...I thank them from the bottom of my heart. As they move forward in their own educational journeys, I want them to know that hard work pays off and I will be here to support them every step of the way. My children are my heart and my life.

My mother has been my rock and support during this journey. I thank her for being there, for picking up the slack and stepping in when I needed to be a student instead of a mother myself. I appreciate the time, the patience, and the empathy so generously given as I grew and struggled to achieve this dream. I could not have done it without such love and support.

Lastly, but not the least, I would like to thank my uncle for his continued advice, support, and guidance through this doctoral journey. I value your expertise and experience.

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Kevin Kenward, I send much gratitude for your acceptance, diligence, and commitment to allow me to use the data from the AHA diversity survey. You went above and beyond to ensure that the data was all set before you retired.

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To my cohort and support group throughout this doctoral journey, I consider you my dear friends. I am forever grateful for meeting each of you during Residency one!

Lastly, I would like to thank God. Without the skills and ability, you have granted me, this journey would not have been possible. I thank you for all those wonderful people you have put on my path who have shared their knowledge, experience, support and love. I intend to do good work with my skills and learning.

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Chapter 1: Introduction to the Study

Census trends show an increase in overall population and increasing ethnic diversification resulting in a more heterogeneous world. These population changes affect the workforce and consumer base of organizations. By 2030, 40% of the total United States population will be comprised of racial and ethnic minorities who will have a significant impact on health care delivery systems (Castillo & Guo, 2011). Racial and ethnic minorities have poorer health outcomes as compared to White Americans even when other factors such as employment status, health care coverage, and income are controlled (Dovidio & Fiske, 2012). Minority populations have poorer health outcomes, adherence to medical treatment, and patient satisfaction due to lack of cultural sensitivity (Tucker, Arthur, Roncoroni, Wall, & Sanchez, 2015). Because the United States attracts two-thirds of the world's immigration, cultural competence becomes a necessity for business organizations (Kohl, Graham, & Glied, 2012). Cultural competence is a business requirement as organizations will need to understand how to treat and care for their customers to remain competitive in today's global market. For health care, these population shifts mean making culturally competent care a national priority and business necessity for their consumers, the patients (Health Research and Educational Trust, 2011).

Cultural competence is composed of various definitions with differing constructs and approaches for implementation. Knowledge of such frameworks can aid organizations in developing cultural competency; however, the message is inconsistent. Health care organizations are receiving increased attention from policy makers,

governmental regulators, and medical insurers regarding health care service and outcome disparities in minority populations (Weech-Maldonado et al., 2012). These organizations are being scrutinized worldwide for unequal access, treatment, and outcomes (Weech-Maldonado et al., 2012) for ethnic minority populations. Disparities are not due to underlying health care needs but are influenced by the health care operating system, regulatory system, discrimination, and other factors (Betancourt, 2014; LêCook, McGuire, & Zaslavsky, 2012). Cultural competence is a continuous learning process that consists of the knowledge, skills, and attitudes needed to effectively communicate within race-discordant relationships; in health care, this would be minority patients and health care providers with different ethnic backgrounds.

Patient satisfaction has been directly linked to service quality and was a variable in this study to measure cultural competence. Patient satisfaction is a construct of service quality designed to measure a patient's experience after receiving services (Dang Westbrook, Rodriguez-Barradas, & Giordano, 2012). Patient satisfaction as an outcome is designed to measure a patient's expectations against the service received (Gallan, Jarvis, Brown & Bitner, 2013). Cultural competence may play a role in assisting health care providers in meeting customer (patient) expectations, thus increasing patient satisfaction.

In this study, I sought to understand the relationship between cultural competence and patient satisfaction. I hoped to determine whether through the implementation of cultural competence initiatives, health care organizations could improve the quality of the operating system resulting in better service quality as evidenced by improved patient

satisfaction outcomes. Higher patient satisfaction scores create a more profitable business outcome as Center for Medicare and Medicaid Services (CMS) links payment reimbursement to patient satisfaction.

Background of the Study

Cultural Needs and Expectations

In an effort to reduce health care disparities among ethnic minority populations, health care providers must understand the cultural beliefs and practices of their patients. The key to beginning this process is through open communication and dialogue toward understanding the cultural identity of the patients. Communication is critical to effective medical care (Becerra, Androff, Messing, Castillo, & Cimino, 2015). Cultural identity is an integral part of a person's self-concept. The ability of health care providers to understand a patient's cultural identity and personal needs can impact a patient's ability to understand and follow the health care plan, which affects overall health outcomes (Tucker, Marsiske, Rice, Nielson, & Herman, 2011).

Health disparities among ethnic populations have historically focused on social determinants such as socioeconomic status, educational attainment levels, environmental and occupational hazard exposure, lack of insurance, and poor access to affordable health care (Dovidio & Fiske, 2012). A broader research focus has recently appeared that includes variations in patients' health beliefs, values, preferences, and behaviors in regards to health disparities (Lee, Fitzpatrick, & Baik, 2013). Regarding the complexity and scope of patient influences, sources indicate that other factors such as religion, gender-specific status/roles, alternative medicine, and folk medicine practices may be

involved (Braveman, Egerter, & Williams, 2011). Ethnic minority patients can also experience obstacles in health care treatment due to (a) limited English proficiency and low literacy specifically on health related matters, (b) fears of mistreatment, (c) fears of grave health issues, (d) fears of deportation, (e) aversion to medications/invasive treatments, (f) lack of understanding, or (g) mistrust of Western medical practices (Krok-Schoen et al., 2015; Tejada et al., 2013).

To be effective, it is important for health care organizations to invest in community outreach and develop a sense of the local surroundings (Guerrero & Kim, 2013). It would be unrealistic to expect health care providers to learn and become sensitive to the numerous cultures of the world. A more functional approach may be for health care providers to understand the surrounding community's diversity and cultures. A familiarity with local cultures would narrow the scope for the health care provider in becoming more sensitive to the patients receiving care on a daily basis within their organizations. Research literature stresses the importance of health care providers seeking to become more aware of their own personal cultural views, values, expectations, and biases (Kutob et al., 2013). A more thorough self-understanding may allow the health care provider to see and respond to cultural differences with patients (Foronda, Baptiste, Reinholdt, & Ousman, 2015; Like, 2011). Epner and Baile (2012) discussed the importance of moving beyond a cultural competence checklist of "right" and "wrong" approaches and catalogue of traits. They emphasize the need to move past cultural assumptions and into a patient-centered approach.

Communication has been a common thread among cultural competence literature in bridging the gap and overcoming the obstacles of ethnic minority patients receiving health care as well as their health disparities (Renzaho, Romios, Crock, & S nderlund, 2013; Epner & Baile, 2012). The ability to communicate is a critical component in any health exchange between the health care provider and patient (Renzaho et al., 2013). New educational approaches in health care focus on communication approaches and training for cultural issues/beliefs (Epner & Baile, 2012). Communication and cultural competence development are pivotal to overcoming clinical barriers.

Cultural Competence

Cultural competence will result in a substantial impact on clinical and organizational outcomes. Consequently, training to enhance employees' ability to interact in multicultural situations has received considerable attention (Chao, Okazaki, & Hong, 2011). Cultural competence initiatives may provide a link between patient adherence to medical treatment, patient satisfaction, and the health care organizations' bottom line (Weech-Maldonado et al., 2012). One facet of the federal regulations and medical insurance initiative to reduce minority health disparities focuses on patient satisfaction. Health care organizations' medical reimbursement for health care services is directly linked to patient satisfaction scores as reported under the Affordable Care Act (ACA). As the population continues to become more heterogeneous, patient care must address cultural issues to increase patient understanding, compliance, and satisfaction. Cultural competence initiatives within hospitals may provide a bridge from quality care to patient satisfaction.

Cultural competence is a developmental process and consists of three components: knowledge, skills, and attitude (Campinha-Bacote, 2011). Knowledge refers to the awareness of other cultural beliefs, values, and practices. Skills and attitude reflect a person's motivation and ability to act upon the differences in the best interest of the other party (Campinha-Bacote, 2011). Understanding cultural influences requires health care providers to look beyond their comfort zones to empathize with another individual's practices. The most prevalent subgroups found in research within the United States are based upon social status, age, and ethnicity. These subgroups practice daily life in their own cultural contexts. Every patient presents with a unique set of beliefs, practices, values, and life experiences that shape perceptions of health care and influences health decisions (Roberts, Moussa, & Sherrod, 2011). These distinct behaviors, preferences, and beliefs are the core factors to which health care providers need to be sensitive when caring for patients of diverse cultures. By focusing on cultural and subgroup factors, health care providers will have a better understanding of the patient's needs and will be able to communicate in a more effective manner. Understanding cultural differences can be a key to effective and respectful conversation in health care between patient and provider (Chang, Simon, & Dong, 2012). Culturally sensitive health care providers can help patients understand their health status and the necessary actions needed to improve their overall health (Tucker et al., 2011). Improving health is the desired outcome for patients. When the care received has met patient expectations, the perception of health care quality increases.

Health care quality has two main components: (a) functional quality and (b) technical quality (Chakravarty, 2011). Patients perceive functional quality based upon the manner and delivery of care (Chakravarty, 2011). Technical quality reflects the professional community's perception of accurate medical diagnosis and treatment procedures (Chakravarty, 2011). The foundation for building health care quality can be established through an understand of service quality models and literature.

Service Quality

Service quality has been defined in several ways. For the purpose of this research, I focused on a more traditional definition: "the comparison of consumer expectations with actual service performed" (Shieh, Wu, & Huang, 2010, p. 279). Service quality has largely been discussed in business literature throughout history; however, it can be applied in the health care field (Shieh et al., 2010). Perceived quality is related to the patient's assessment of the experience and directly impacts customer satisfaction (Shieh et al., 2010). In health care, the customer is the patient. Researchers believe a strong link exists between customer satisfaction, customer retention, and profitability and can be evidenced by the many organizations that focus their key operational goals on customer satisfaction (Rust, Moorman, & van Beuningen, 2015). Thus, it is critical to understand the patient's expectations and perceptions to better the health care organization's service quality (Haron, Hamid, & Talib, 2012).

Problem Statement

By 2030, 40% of the total United States population will be comprised of racial and ethnic minorities, which will have a significant impact on health care delivery

systems (Castillo & Guo, 2011). As the population of the U.S. continues to increase in diversity, hospitals will need to understand and care for patients of diverse backgrounds and provide quality service to these patients for positive patient satisfaction scores. In this study, I explored the relationship between cultural competence initiatives and patient satisfaction scores. Cultural competence initiative constructs will include leadership, diversity management planning, cultural competency, and disparities. Determining the relationship between cultural competency initiatives and patient satisfaction will aid health care organizations in determining whether resources should be allocated toward developing cultural competence. Culture is still an easily misunderstood concept that plays a critical role in the clinical setting (Roux, 2012); therefore, I conducted a nonexperimental quantitative retrospective survey study to investigate the impact of cultural competency on patient satisfaction ratings in a health care setting.

Purpose of the Study

As the U.S. population becomes more heterogeneous, the increasingly diverse population becomes a challenge to hospitals in providing quality and satisfactory care to all patients. The purpose of this nonexperimental quantitative retrospective survey design was to determine what relationship exists between cultural competence and patient satisfaction scores as reported by the Hospital Consumer Assessment of Health Care Providers and Systems (HCAHPS) survey through the lens of service quality. Cultural competence initiatives, the independent variable, encompasses constructs that address organizational practices such as leadership, diversity management planning, cultural competency, and disparities. The independent variable was a composite score gathered

from the DDBS conducted by The Institute for Diversity in Health Management in partnership with the Health Research & Educational Trust and the American Hospital Association (AHA). The composite score represented a cultural competence rating for participating hospitals based upon efforts to identify and address health disparities.

Patient satisfaction scores, the dependent variable, were defined as the aggregate scoring of patient satisfaction during hospital stays and were gathered from the HCAHPS Survey. This survey represents a base score that is an assessment of 32 questions assessing seven internally developed domains of care: (a) nurse communication, (b) nursing services, (c) doctor communication, (d) physical environment, (e) pain control (f) communication about medicines, and (g) discharge information (Survey of patients' experiences, n.d.). The control variable represents health care settings. I utilized data from those hospitals which participate in the HCAHPS survey and the "Diversity and Disparities Benchmark Study."

Research Question(s) and Hypotheses

The research questions and hypotheses for this nonexperimental quantitative retrospective survey design were:

RQ1: What is the relationship between cultural competence initiatives and patient satisfaction scores as revealed by HCAHPS Survey results?

H_0 1: Hospitals with cultural competence initiatives do not have significantly higher patient satisfaction scores.

H_a 1: Hospitals with cultural competence initiatives have significantly higher patient satisfaction scores.

RQ2: What components of cultural competency have a more significant relationship with patient satisfaction scores as revealed by HCAHPS Survey results?

H₀2a: Leadership is not a significant predictor of patient satisfaction scores as revealed by HCAHPS Survey results.

H_a2a: Leadership has a significant relationship with patient satisfaction scores as revealed by HCAHPS Survey results.

H₀2b: Diversity management planning is not a significant predictor of patient satisfaction scores as revealed by HCAHPS Survey results.

H_a2b: Diversity management planning has a significant relationship with patient satisfaction scores as revealed by HCAHPS Survey results.

H₀2c: Cultural competency is not a significant predictor of patient satisfaction scores as revealed by HCAHPS Survey results.

H_a2c: Cultural competency does have a significant relationship with patient satisfaction scores as revealed by HCAHPS Survey results.

H₀2d: Addressing disparities is not a significant predictor of patient satisfaction scores as revealed by HCAHPS Survey results.

H_a2d: Addressing disparities has a significant relationship with patient satisfaction scores as revealed by HCAHPS Survey results.

Hypotheses 1 through 2d were tested by conducting a multiple linear regression analysis of the following model,

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \varepsilon_i$$

where Y is patient satisfaction score, X_1 is cultural competence initiative, X_2 is leadership, X_3 is diversity management planning, X_4 is cultural competence, X_5 is addressing disparities and ϵ_i is the error term.

Theoretical Framework

The theoretical framework for this study was based on cultural competence and patient satisfaction. The process of cultural competence in the delivery of health care services developed by Campinha-Bacote (2002), who identified cultural competence as an ongoing process for development by health care providers in bestowing culturally sensitive care to clients. The components of this model are similar to Campinha-Bacote's (1994) earlier model, which encompassed cultural awareness, cultural knowledge, cultural skill, cultural encounters, and cultural desire (Campinha-Bacote, 1999).

Cultural awareness is the process of becoming sensitive to the values, beliefs, and practices of different cultures. Cultural knowledge is the educational process for obtaining a foundation in worldly views on different cultures. Cultural skill is the ability to gather appropriate cultural information from the client to address culturally appropriate assessments and care. Cultural encounter is the engagement process of the health care provider with culturally diverse clients. Cultural desire is the driving force of the health care provider to engage in cultural competence (Campinha-Bacote, 1999).

Each of the constructs of the process of cultural competence in the delivery of the health care services model is interdependent; all five constructs need to be experienced and addressed for a true cultural competence process to occur. The model is effective for all areas of health care provider managerial practices and organizations (Campinha-

Bacote, 2002). As the population continues to diversify, patients' cultural influences will impact their care needs and expectations. The Office of Minority Health, U.S. Department of Health and Human Services (OMH; 2013) has created national standards to help reduce disparities, improve quality and help eliminate health care disparities. These standards are the National Standards for Culturally and Linguistically Appropriate Services in Health and Health Care (CLAS). CLAS standards provide a framework for cultural competency and a roadmap for health care organizations in the delivery of care (Weech-Maldonado et al., 2012) Service quality serves as the foundation for patient satisfaction. Business organizations have used service quality as an indicator of customer satisfaction based on services provided. Health care institutions can utilize the same model for assessing patient satisfaction (Kalepu, 2014). Today, patients see themselves as consumers of health services. Thus hospitals have found it necessary to identify key drivers of patient satisfaction and improving service quality as a crucial hospital operation (Chang & Chang, 2013).

Service quality is defined by the consumer's attitude of the overall experience of the service. This can also be defined by applying a disconfirmation model which signals a gap between the customer's service expectation and performance (Kazemi, Ehsani, Abdi, & Bighami, 2013). I have created Figure 1 to depict how consumer expectations are formed through cultural needs and expectations. A health care organizations' customers, the patients, evaluate the quality of care based on their experiences. Service quality is a comparison between the service the consumer expects with the actual service experienced (Parasuraman, Zeithaml, & Perry, 1985). Through culturally sensitive care developed

through cultural competence initiatives and service quality, the patient satisfaction scores will be impacted.

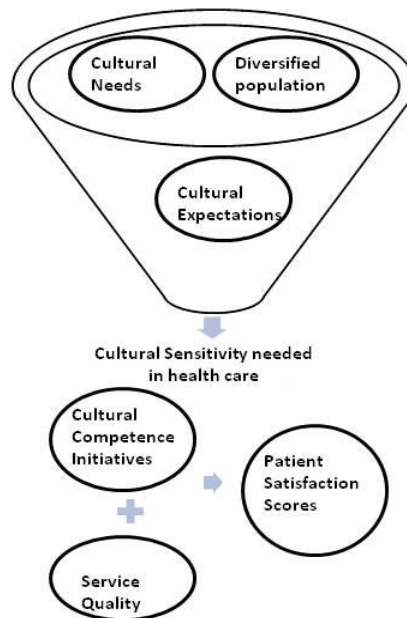


Figure 1. Cultural competence and patient satisfaction relationship. This figure illustrates a conceptual map for a quantitative examination of the impact of cultural competence on patient satisfaction scores.

Cultural Competence

The process of cultural competence in the delivery of health care services is a model developed by Campinha-Bacote (2002). This model represents a cultural competence as an ongoing process for development by health care providers in bestowing culturally sensitive care to clients. The components of this model are similar to Campinha's (1994) earlier model, which encompasses cultural awareness, cultural

knowledge, cultural skill, cultural encounters, and cultural desire (Campinha-Bacote, 1999).

Cultural awareness is the process of becoming sensitive to the values, beliefs, and practices of different cultures. Cultural knowledge is the educational processes for obtaining a foundation in worldly views on different cultures. Cultural skill is the ability to gather appropriate cultural information from the client to address culturally appropriate assessments and care. Cultural encounter is the engagement process of the health care provider with culturally diverse clients. Cultural desire is the driving force of the health care provider to engage in cultural competence (Campinha -Bacote, 1999).

Each of the constructs of the process of cultural competence in the delivery of health care services is interdependent; all five constructs need to be experienced and addressed for a true cultural competence process to occur. The model is effective for all areas of health care provider practices and organizations (Campinha-Bacote, 2002).

“Cultural competence is an essential component in rendering effective health care services to culturally and ethnically diverse clients” (Campinha –Bacote, 1999, p. 206).

Service Quality

Business organizations have used service quality as an indicator of customer satisfaction based on services provided. Health care institutions can utilize the same model for assessing patient satisfaction when the consumer is the patient (Kalepu, 2014). Today, patients see themselves as a consumer of health services. Thus, hospitals have found it necessary to identify key drivers of patient satisfaction and improving service quality as a crucial hospital operation (Chang & Chang, 2013).

Service quality is defined by a consumer's attitude of the overall experience of the service. This can also be defined by applying a disconfirmation model which signals a gap between the customer's service expectation and performance (Sitzia & Wood, 1997). A health care organization's customer, the patient, evaluates the quality of care based upon the experience.

Quality care has both functional and emotional components from a patient's perspective. Components have varied in number and concept throughout research history; however, the most reported dimensions can be found on the SERVQUAL scale: tangibles, reliability, assurance, responsiveness, and empathy (Ladhari & Rigaux-Bricmont, 2013). Tangibles are the appearance of the physical buildings, equipment, employees, and communication materials (Kazemi et al., 2013). Reliability refers to the health care organization's ability to perform the desired services accurately. Responsiveness addresses the organization's ability level to help the customer promptly. Assurance addresses the employees' ability to inspire trust and confidence as demonstrated by knowledge and courtesy (Kazemi et al., 2013). Empathy is the individualized care provided to customers that address specific needs (Kazemi et al., 2013). Cultural competence refers to the emotional needs component of the service quality model, such as assurance and empathy, and reflects an understanding of the needs and expectations of diverse cultures. As health care providers are educated as to how to communicate and understand the cultural influences of the patient, health-related information can be delivered in a context that the patient will understand, thus meeting the assurance component of service quality. In addition, the health-related information

can meet the cultural needs of the patients when appropriate, thus meeting the empathy component of service quality.

Nature of the Study

I designed this non-experimental quantitative retrospective survey study to determine what relationship exists between cultural competence and patient satisfaction scores as reported by the HCAHPS survey. If a positive relationship was determined, hospitals could increase their cultural diversity initiatives to improve patient satisfaction scores which can directly impact their financial reimbursements. Quantitative studies are applied when post-positivist views are being explored. In this study, I aimed to understand the relationship between cultural competence initiatives on patient satisfaction scores. Thus, both cultural competence and patient satisfaction variables data utilized from secondary data sources will be analyzed through multiple linear regression models to determine what relationship exists between the two variables. The data for patient satisfaction scores was available through a publicly available database on the Hospital Compare website and supported by Centers for Medicare & Medicaid Services. Data on cultural competence initiative scoring is being accessed with permission from the AHA and the Health Research & Educational Trust, which conducted a diversity survey in 2013. Subcategories within culture competency that were examined are: leadership, diversity management planning, cultural competency, and disparities. Subcategories were included in the multiple linear regression analysis to determine the level of significance each has on patient satisfaction scores.

Operational Definitions

CLAS Standards: National Standards for Culturally and Linguistically

Appropriate Services in Health and Health Care is a set of standards developed by the OMH in 2000 and enhanced in 2013 to provide organizations and individuals a blueprint to implement culturally and linguistically appropriate services (U.S. Dept of Health & Human Services, 2013).

Cultural Competence: the ability of individuals to function effectively with another culture(s) (Campinha-Bacote, 2011). Research studies on cultural competence have agreed that cultural competence is a developmental process and consists of three components: knowledge, skills, and attitude (Campinha-Bacote, 2011). The knowledge is the awareness of other cultural beliefs, values, and practices. Skills and attitude reflect a person's ability to be motivated and possess the ability to act upon the differences in the best interest of the other party (Campinha-Bacote, 2011).

Cultural Diversity: a concept that has been defined differently throughout the research. Many organizations and researchers address workplace diversity by focusing on race, gender, ethnicity, age, personality, education, personality, organizational function, and more (Patrick & Kumar, 2012). For this literature review, I will use diversity to address the differences between individuals based upon gender, ethnicity, age, and physical and mental ability as well as the attitudes, beliefs, values, and practices that encompass each individual.

Health Disparities: the difference in incidence, prevalence, mortality and burden of health conditions or disease among specific groups in the U.S. (Zonderman, Ejiogu, Norbeck, & Evans, 2013).

Hospital Consumer Assessment of Health Care Providers Systems (HCAHPS) survey: a standardized publicly reported survey of data on the perspectives of patients' hospital care (HCAHPS Fact Sheet, 2013).

Patient Satisfaction: patient satisfaction is a specialized concept of consumer's satisfaction directly related to health care. Patient satisfaction reflects a consumer's experience after receiving service (Dang et al., 2012).

SERVQUAL: a model that measures the difference between consumers' expectation of service quality and their perception of actual performance of service quality (Malik, 2012).

Service Quality: service quality has been defined several ways. For the purpose of this research, I will use the definition of service quality as: "the comparison of consumer expectations with actual service performed" (Shieh, Wu, & Huang, 2010, p. 279).

Assumptions

I have based the assumptions for this research study upon the reliability and validity of the HCAHPS Survey and the "Diversity and Disparities Benchmark Study." Each of these surveys was answered by individuals. The assumption was that the individuals were qualified and honestly answered the questions to the best of their knowledge without influence in any manner. It was assumed that the individuals answering the questions understood the questions and intent of each question.

Scope and Delimitations

The scope of the research project entailed all hospitals that participated in both the HCAPHS Survey and the “Diversity and Disparities Benchmark Study.” Hospitals that participated in both surveys were cross-referenced and coded for confidentiality purposes. Hospitals that did not participate in the Benchmarks Study were eliminated from the sample population.

Delimitations

Most hospitals participate in the HCAHPS survey as this is directly related to reimbursement from the (ACA). However, if hospitals did not participate in the Benchmark study, they were not included in this research study as data on cultural competency was not available to cross-reference. The data being analyzed is only the patient care experience data from HCAHPS and the Benchmark Study subcategories that relate to diversity. Gender and top performing hospitals were not applicable to the variables being analyzed.

Limitations

The limitations of the HCAHPS Survey are the languages in which the survey is available: (a) English, (b) Spanish, (c) Chinese, (d) Russian, and (e) Vietnamese. This does limit the ability to adapt to other cultures (HCAPHS Fact Sheet, 2013). Petruzzo, Lamar, Nwanko-Otti, Alexander-Mills, and Viola (2012) found variations in the survey mode where more positive responses were collected via telephone interviews than via mail surveys. The cause of this may be attributed to interviewer leading effects. An additional limitation is the diversity of patients. Hospitals are not able to control who

seeks treatment in the organization; yet, patient demographics such as age, race, educational level, and socioeconomic status are related to a patient's experience and responses on the patient satisfaction survey (Petrullo et al., 2012). Limitations on the Benchmark study are due to hospitals that chose not to participate and those with patient populations that exceeded 85% and/or were less than 16% minorities in c-suite positions that were eliminated from the leadership category.

Significance of the Study

By 2030, 40% of the total population will be comprised of racial and ethnic minorities, which will have a significant impact on health care delivery systems (Castillo & Guo, 2011). Minority populations have poorer health outcomes, less adherence to medical treatment and lower patient satisfaction due to lack of cultural sensitivity. Health care providers have created an oath to provide warmth and understanding to patients and to treat the person as an individual (Searles, 2012). This oath applies to all patients regardless of age, ethnicity, race, religion, disability, or sexual preference. Health care organizations are receiving increased attention from policy makers, governmental regulators, and medical insurers concerning health care disparities in minority populations (Weech-Maldonado et al., 2012). As a result, one factor in health care organizations' medical reimbursement for health care services is directly linked to patient satisfaction scores as issued under the ACA. Health care organizations as business entities must be proactive in developing cultural competence initiatives and practices to address minority health disparities (Pletcher et al., 2013). Cultural competence initiatives may provide a link between patient adherence to medical treatment, patient satisfaction,

and health care organizations' bottom line (Weech-Maldonado et al., 2012). If ethnically diverse patients are more satisfied with culturally sensitive care, they may be more likely to be compliant in their treatment protocols and engage in earlier health care intervention, thus impacting the health care disparities evident in today's health systems.

Significance to Theory

Through the nonexperimental quantitative retrospective survey study, it can be determined what relationship exists between cultural competence initiatives and patient satisfaction thus providing an analysis of the relationship significance for the constructs of cultural competence. In addition, the impact of the constructs of cultural competence can be analyzed individually and in combination to determine if it made a significant impact on patient satisfaction.

Through the lens of the disconfirmation model, cultural competence can be measured through patient satisfaction scores as signaling the gap between customer service expectations and performance as a determinant of service quality. The disconfirmation model holds that satisfaction is based upon an individual's expectations before the service is experienced (Zhao, Lu, Zhang, & Chau, 2012). The preconceived expectation forms the basis for comparing actual service and determines satisfaction or dissatisfaction (Lai & Chen, 2011).

Significance to Practice

Through this research study, I hoped to determine whether through the implementation of cultural competence initiatives, health care organizations could improve the quality of the operating system resulting in better service quality as

evidenced by improved patient satisfaction outcomes. These findings are important because, as the United States population continues to grow and diversify; hospitals will need to learn to meet the cultural needs of their patients to improve health outcomes and patient satisfaction rates. Meeting the expectations of customers directly influences the satisfaction rate. From a business perspective, the ACA has implemented strict payment guidelines for health care organizations (Litvak & Bisognano, 2011). These guidelines indicate that specific payment amounts will be provided to the organization based upon health services needed. For example, heart attacks will receive X amount of dollars. The organization must provide treatment to the patient within that budgeted amount regardless of cultural issues and medical challenges. To further complicate the issue, if a patient were to return for subsequent health issues on the original heart failure diagnosis within 30 days of initial treatment, no additional payments for re-admission will be made by medical insurers (Joynt & Jha, 2012).

Medical reimbursement has also added a patient satisfaction component to this process. Providers can be penalized at differing percentage levels based upon hospital patient satisfaction scores. Therefore, if hospitals receive poor satisfaction scores, they will be penalized a percentage reduction of the diagnosis/treatment fee schedule already in place. Low patient satisfaction scores can greatly impact a hospital's bottom line. Improving health outcomes and patient satisfaction scores through culturally sensitive care may play an important role in improving a hospital's bottom line. As the health care industry is faced with changing regulations for health care reimbursement, patient satisfaction scores play a key role in reimbursement percentage rates. Therefore, by

understanding the diverse cultural needs of its customers, health care organizations will be able to improve patient satisfaction scores. Understanding the relationship between cultural competence initiatives and patient satisfaction scores will aid health care organizations in determining if these initiatives are worth an investment of resources. A broader look at the significance to practice with improved patient satisfaction scores is an increased marketing ability and consumer attraction. Patient satisfaction data can play a role in consumer decisions as many health plans and CMS report patient satisfaction ratings for physicians and hospitals as the sole comparator (Fenton, Jerant, Bertaks, & Franks, 2012). Positive patient satisfaction increases a hospital's image for marketing and has been reported to directly impacting between a 17 to 27 percent variation in a hospital's bottom line through income and profits (Alrubaiee & Alkaa'ida, 2011).

Significance to Social Change

Cultural barriers such as communication, beliefs, and values can stand in the way of optimal health care delivery if these factors are not taken into consideration. Cultural competency may allow health care organizations and providers to understand these cultural factors when health care issues and delivering health care treatment are addressed. Health care and interventions delivered in a culturally appropriate approach result in positive outcomes for the patient (Long, 2012). Increased compliance with health care regimens will result in less frequent hospital visits and improved health, which will decrease the disparity of health care in ethnic minorities. The social change may be witnessed; if patients are more satisfied with culturally sensitive care, they may be more likely to engage in earlier health care intervention, care, and adherence, thus

impacting the health care disparities evident in today's health systems. Higher patient satisfaction scores for physicians and hospitals will attract patient consumers for treatment and services thus further improving the business's marketability as satisfied patients tend to exhibit favorable behavioral intentions (Alrubaiee & Alkaa'ida, 2011).

As hospitals witness the impact of cultural competency on patient satisfaction and medical reimbursement, resources can continue to be allocated for cultural competence initiatives for a continual learning process. As health care providers within the hospital grow in competency, patient satisfaction has the potential to increase. Hawthorne, Sansoni, Hayes, Marosszky, and Sansoni (2014) stated that patient satisfaction includes all aspects of care quality.

Summary and Transition

As the population in the United States continues to grow and change to a more heterogeneous population, there is evidence that ethnic populations face health disparities influenced by a lack of cultural competence within the health system. The health care system is being scrutinized for service quality and care which can directly impact reimbursement dollars through CMS. CMS has directly tied patient satisfaction outcome scores through the HCAHPS survey to reimbursement dollars. To decrease health disparities and increase the maximization of reimbursement of services rendered, hospitals can implement cultural competence initiatives to impact patient satisfaction scores.

My goal in this nonexperimental quantitative retrospective survey study was to determine what relationship existed between cultural competency initiatives and patient

satisfaction scores through the lens of service quality. By determining if a positive relationship existed, hospitals would be able to further examine the need to implement cultural competency initiatives to better serve their patients and increase patient satisfaction scores on HCAPHS surveys resulting in maximized reimbursement dollars for services rendered and a healthier bottom line.

To more fully understand the issues in a more heterogeneous population, it is helpful to understand the history of the United States population, the treatment of ethnic minorities, and the policies implemented to correct unfair treatment received in all categories of diversity. Through this historical view, the need for cultural competence can be established and supported. I looked at cultural competence and explored the constructs and application of such initiatives as well as review the literature for potential benefits and challenges.

Chapter 2: Literature Review

Strict payment for service guidelines have been issued under the ACA, and one qualifying component of payment is based upon the patient satisfaction scores as developed by CMS (Manary, Boulding, Staelin, & Glickman, 2013; Geiger, 2012). Reimbursement percentages for services rendered are impacted directly by a hospital's patient satisfaction scores. If a hospital has a low patient satisfaction score, reimbursement for services rendered will be reduced. As hospitals work to achieve higher patient satisfaction scores to increase reimbursement, it is imperative to address ethnic patient care. Minority populations have poorer health outcomes, less adherence to medical treatment, and lower patient satisfaction due to lack of cultural sensitivity (Tucker et al., 2015). Cultural competence has been linked to patient satisfaction (Awosogba et al., 2013); therefore, a quantitative study was needed to investigate the impact of cultural competence initiatives on patient satisfaction ratings in a health care setting.

Literature Search Strategy

The literature review research has been conducted over the past three years with the focus of the key variables in this study: cultural competence, service quality, and patient satisfaction. Key terms were expanded upon to include *diversity, health care disparities, racial disparities, health disparities in minority populations, race and health disparities studies, HCAHPS, cultural expectations in health care, cultural competence theories, cultural competence models, cultural competence and organizational culture, culturally congruent care, trans-cultural nursing, cultural education, service quality and*

cultural competence, service quality and patient satisfaction, Servqual, social determinants in health service, patient/physician discordance, CLAS standards, Affordable Care Act, patient satisfaction, and patient/physician communication. My research was conducted in the Walden Library database across multiple discipline related databases: ABI/Inform Complete, Business Source Complete, CINAHL & Medline Simultaneous Search, CINAHL Plus with Full Text, Medline with Full Text, ProQuest Central, ProQuest Health & Medical Complete, ProQuest Nursing & Allied Health Source, PsycINFO, and ScienceDirect. In addition, I utilized GoogleScholar to assist in article research and review. I found foundational works in the main constructs of cultural competency, service quality, and patient satisfaction works dating back to the 1950s. I reviewed journal articles from that timeframe through the current year of 2016. However, I referenced the majority of scholarly works from within the last five years. Through Google Scholar, using tools such as *cited by* and *related articles*, I identified and reviewed additional references. During the literature review process, I found scholarly journal articles which provided me with further resources through the *reference* sections.

Theoretical Foundation

The theoretical framework for this study was based on cultural competence and patient satisfaction. The process of cultural competence in the delivery of health care services developed by Campinha-Bacote, (2002) identified cultural competence as an ongoing process for development by health care providers in bestowing culturally sensitive care to clients. The components of this model are similar to Campinha-Bacote's

(1994) earlier model, which encompassed cultural awareness, cultural knowledge, cultural skill, cultural encounters, and cultural desire (Campinha-Bacote, 1999).

Cultural awareness is the process of becoming sensitive to the values, beliefs, and practices of different cultures. Cultural knowledge is the educational process of obtaining a foundation of worldly views on different cultures. Cultural skill is the ability to gather appropriate cultural information from the client to address culturally appropriate assessments and care. Cultural encounter is the engagement process of the health care provider with culturally diverse clients. Cultural desire is the driving force of the health care provider to engage in cultural competence (Campinha -Bacote, 1999).

Each of the constructs of the process of cultural competence in the delivery of health care services model is interdependent; all five constructs need to be experienced and addressed for a true cultural competence process to occur (Campinha-Bacote, 2002). The model is effective for all areas of health care provider managerial practices and organizations (Campinha-Bacote, 2002). As the population continues to diversify, patients' cultural influences will impact their care needs and expectations. The OMH (2013), has created national standards to improve quality and help eliminate health care disparities. These are the CLAS standards. CLAS standards provide a framework for cultural competency and provide a roadmap for health care organizations in the delivery of care (Weech-Maldonado et al., 2012). Service quality serves as the foundation for patient satisfaction. Business organizations have used service quality as an indicator of customer satisfaction based on services provided. Health care institutions can utilize the same model for assessing patient satisfaction when the consumer is the patient (Kalepu,

2014). Today, patients see themselves as consumers of health services. Thus, hospitals have found it necessary to identify key drivers of patient satisfaction and improving service quality as a crucial hospital operation (Chang & Chang, 2013).

Service quality is defined by a consumer's attitude of the overall experience of the service. This can also be defined by applying a disconfirmation model which signals a gap between the customer's service expectation and performance (Sitzia & Wood, 1997). A health care organization's customer, the patient, evaluates the quality of care based upon an experience. Service quality regards the service the consumer expects with the actual service experienced (Parasuraman, Zeithaml, & Perry, 1985). It is important to note that service quality evaluations are viewed through the lens of functional quality, as most patients are not qualified to evaluate technical quality (Kupfer & Bond, 2012). Through the functional lens, patients evaluate the hospital based upon interaction with the health care providers concerning friendliness, caring attitude, communication of illness and treatment, and respect (Alrubaiee & Alkaa'ida, 2011).

Through the nonexperimental quantitative retrospective survey study, I determined what relationship exists between cultural competence initiatives and patient satisfaction, thus providing an analysis of the relationship significance for the constructs of cultural competence. In addition, I analyzed the impact of the constructs of cultural competence individually and in combination to determine if there was a significant impact on patient satisfaction.

Through the lens of the disconfirmation model, cultural competence can be measured through patient satisfaction scores as signaling the gap between customer

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Literature Review

A Brief Historical Look at Diversity in America

The American population has been comprised of diverse groups dating back to the 1700s. In 1790, the first federal census was conducted and produced population data that reported one-fifth of the population was Black American. The majority of White Americans were of English descent, followed by Scottish and Irish ancestry. Throughout history, there has been a prevalence of white Americans with backgrounds from Dutch, French, German and Swedish ancestry (Mintz & McNeil, 2013). It is important to note that Native Americans were not included in the census of 1790 (United States Census Bureau, 2014). American history is riddled with historical accounts of discrimination of various racial and ethnic groups.

Black Americans were not considered full American citizens until 1868 (Lenoir, 2013). Native Americans were removed from their homelands and relocated to areas that were deemed acceptable by newly colonizing white people. A push and pull dichotomy between White Americans and other racial groups is evident throughout American history as human nature sought to create equality among the inhabitants. The American government has created and employed numerous laws and amendments to correct the

unequal treatment of population groups dating back to Abraham Lincoln's Emancipation Proclamation which freed southern Black Americans from slavery (U.S. National Archives & Records Administration, 2013). The Emancipation Proclamation was followed by the 13th Amendment in 1865 which abolished and prohibited slavery, the 14th Amendment in 1868 which granted former slaves equal protection as any American citizen had under the law and the 15th Amendment in 1870 which prohibited anyone from being denied the right to vote based on race, color, or previous condition of servitude (U.S. Senate, 2009). Next, the Civil Rights Act was enacted to create equal accommodations for blacks in public facilities other than schools but then was voided by the United States Government in 1883 (Test of Courage, 2013).

Discrimination was not evident among people of different skin color. Women, white or black, were discriminated against by being banned from holding professions outside the home in 1883 (upholding the Creator Law) and prohibited from voting (Test of Courage, 2013). In 1920, the 19th Amendment gave women the right to vote. During World War II, women were allowed to enter into jobs in various industries due to the shortage of male workers.

Forward movement in equal treatment based on race and gender continued to be pushed back by opponents to equality. In 1848 and then renewed in 1892, the U.S. Congress passed the Chinese Exclusion Act which required all Chinese to carry identification cards and excluded Chinese laborers for ten years. Before the Voting Rights Act of 1965 and the 19th Amendment were ratified, Southern states imposed

property tax requirements, literacy tests, and other obstacles to prohibit Black Americans from voting.

The Mexican Revolution in 1910 produced an influx of Mexican immigrants into the U.S. who were seeking safety and employment (Test of Courage, 2013). In 1921, the Emergency Immigration Restriction Law introduced a quota system that favored northern and western Europeans. The Indian Citizenship Act of 1924 granted U.S. citizenship to Native Americans for those nations willing to forgo sovereign nationhood.

Over the next forty years, movement forward and backward on diversity acceptance was evident in the United States. Starting in 1964, a more progressive movement for greater equality of ethnic minorities developed. In 1964, the U.S. Congress passed the Civil Rights Act, which protects citizens against discrimination and segregation. President Johnson signed Executive Orders requiring federal agencies and contractors to engage in affirmative action in overcoming discrimination in employment practices in 1965. These Executive Orders were expanded in 1967 to include women; however, enforcement was not evident until 1973. During 1967, the Age Discrimination Act of 1967 prohibiting discrimination against older adults in employment practices was passed by Congress. Discrimination of housing rights was the target of the Civil Rights Act of 1968. Throughout the 1970s, various legislations were implemented or removed to eliminate barriers for women in the workforce and in education.

Many of the diversity initiatives prior to 1990 focused on race, gender, and age. In 1990, the Americans with Disabilities Act were passed banning discrimination against people with disabilities. The policy reform addressing sexual preferences was addressed

in 1993 when the ban prohibiting gays from military service was lifted. In 1996, the first ban on affirmative action programs was passed in California.

The United States continues to work on and address issues of unequal treatment to any citizen based on race, ethnicity, age, gender, disability, sexual preference, or religion. This is a continuous effort of changing variables. Throughout the census collection in the United States, the categories have grown and changed. Current census trends show an increase in overall population and particularly in minority populations resulting in a more heterogeneous country. By 2050, over 50% of the total population will be made up of racial and ethnic minorities, which will have a significant impact on many systems within the United States, particularly health care delivery systems, as shown in Figure 2 (Castillo & Guo, 2011).

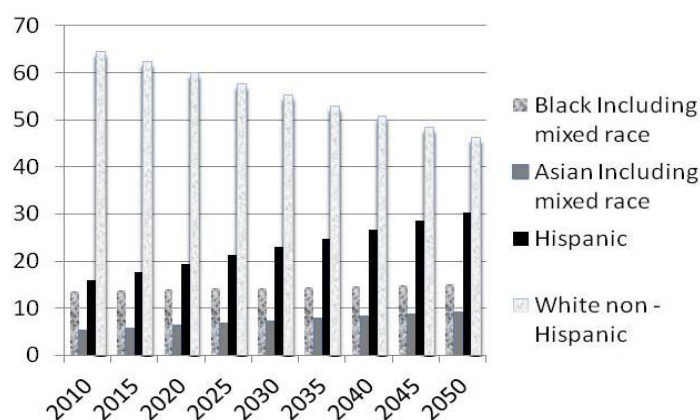


Figure 2. Population projections. This figure illustrates the U.S. population projections to 2050 demonstrated with percentage by race and Hispanic origin (US Census Bureau, 2000 as cited by Castillo & Guo, 2011).

Disparities in Health care

Historically, research and behavioral change interventions in the health field have been developed predominately from work in European-origin populations in economically developed countries (Davidson et al, 2013). The results of such research still influence the practice of medicine today. Kirmayer (2012) suggested that “in culturally diverse societies, the dominant culture, which is expressed through social institutions, including the health care system, regulates what sorts of problems are recognized and what kinds of social or cultural differences are viewed worthy of attention” (p.149). As the population becomes more heterogeneous, health care must adapt its approach to meet the needs and demands of its patient populations. Health care disparities continue to be present for racial and ethnic populations. The Centers for Disease Control defines disparities as the gap in health and health determinants among different population groups (2013). The U.S. Government’s Office of Management and

Budget has identified and defined five racial categories for recordkeeping and data collection at the federal level: 1) American Indian/Alaskan Native; 2) Asian/Pacific Islander; 3) Black; 4) Hispanic; and 5) White (Office of Management and Budget, 1995).

Racial and ethnic minorities experience a diminished quality of life due to chronic diseases and premature death; sixty percent of these deaths are preventable (Thomas, Quinn, Butler, Fryer, & Garza, 2011; Dykes, 2015). White women and men outlive black women and men at every age and educational level with the exception of black women at 60 (Olshansky et al., 2012). Besides mortality gaps, disparities can be found in higher rates of diabetes among Native Hawaiians/Pacific Islanders and Hispanic adults compared to non-Hispanic whites; American Indian/Alaska Natives have heart disease at twice the rate as non-Hispanic whites (Zonderman et al., 2013). The Center for Disease Control (2014) indicated that death rates for American Indians and Alaska Natives are 50% higher than non-Hispanic whites. The statistics on the number of deaths for Black Americans includes infant mortality which is more than double the rate for non-Hispanic white women (CDC, 2013). In 2012, the ten leading causes of death were heart disease, cancer, stroke, lower respiratory diseases, accidents, diabetes, Alzheimer's disease, influenza and pneumonia, kidney disease, septicemia, and assault (Heron, 2015). Cancer incidence and death rates vary considerably among the different racial and ethnic groups (Siegel, Naishadham, & Jemal, 2012). Racial/ethnic minority patients with lung cancer experience poorer survival rates and are less likely to receive appropriate, timely treatment options including hospice care than non-Hispanic whites (John et al., 2014). These studies provide witness to only a few incidents of disparity present today; however,

each reveals the stark issue and depth of the differences in health care outcomes experienced by minority populations (Roux, 2012; Penner et al., 2013).

Many factors can contribute to health disparities among ethnic populations (Roux, 2012). Major factors contributing to disparities can be categorized into two groups of explanation: biological/genetic and social (Penner et al., 2013; Roux, 2012).

Biological/ genetic explanations focus on the difference in the biological and genetic composition for each ethnic group that may make individuals more prone or resistant to different chronic diseases and ailments. The social determinants explanations focus on socioeconomic status, education, insurance, cultural beliefs, and occupation (Roux, 2012; Penner et al., 2013).

Other socio-economic factors can include segregation, less opportunity for innovative quality treatment, lack of quality medical facilities, and less mobility for lower socio-economic status individuals (Penner et al., 2013; Saldana-Ruiz et al., 2013). Braveman et al. (2011) emphasized that all indicators of socio-economic status are strongly witnessed across different racial groups and play a key role in health disparities. Some researchers believe that racial and ethnic minorities have poorer health outcomes as compared to White Americans even when other factors such as age, income, employment status, health care coverage, and severity of conditions are controlled (Signorello et al., 2014; Awosogba et al., 2013). Signorello et al. (2014) found that racial disparities in health are apparent even with a high level of socio-economic status. Other environmental factors have been documented as impacting health disparities such as racism, access to health care, and health care provider bias (Edge, Newbold, McKeary, 2014). Penner et al.

(2013) acknowledged the importance of socioeconomic status on health care disparities; however, they also identified other contributing factors such as language proficiency and health literacy as playing important roles.

Penner et al. (2013) offered a model (see Figure 3) that delineates causes of health care disparities in three levels: societal, intrapersonal, and interpersonal. Health disparities are witnessed at the societal level with increased stress as a result of the social environment of the individual and difficulty accessing high-quality medical care (Penner et al., 2013).

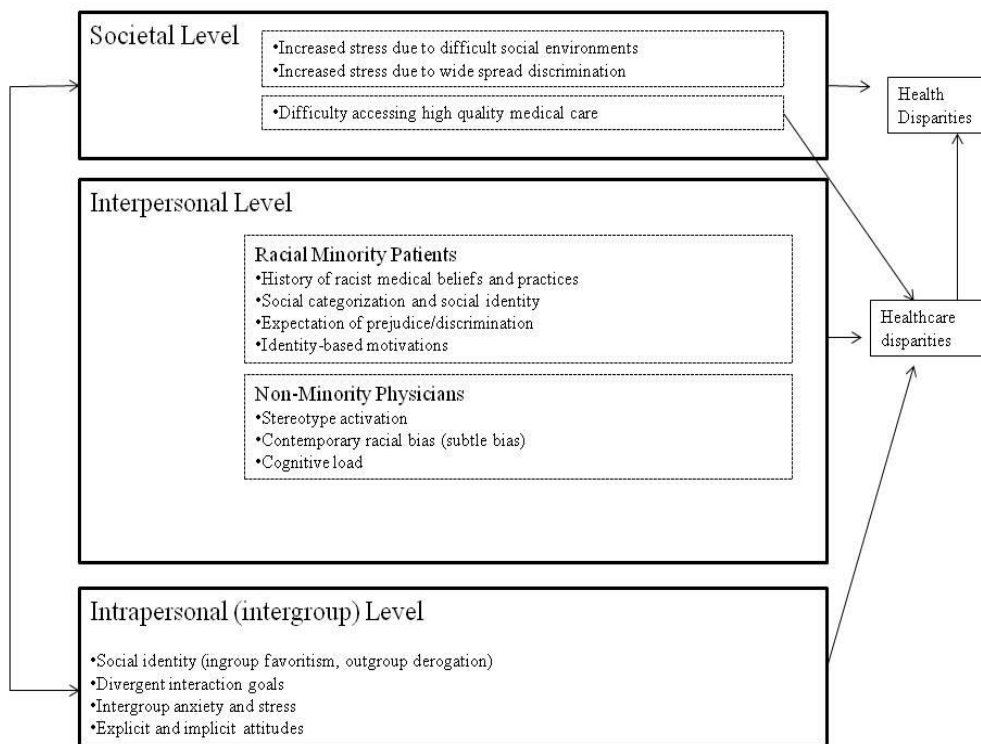


Figure 3. This model illustrates a multilevel model of causes of health care and health status disparities. From “Racial health care disparities: A social psychological analysis,” by L.A. Penner, N. Hagiwara, S. Eggly, S. Gaertner, T.L. Albrecht & J.F. Dovidio, 2013, *European Review of Social Psychology*, 24(1), p.76. Copyright 2013 by Francis & Taylor. Reprinted with permission.

Sims et al. (2012) evaluated the impact of stress on multiple levels to hypertension in Black Americans. It was found that Black Americans with the highest level of lifetime discrimination or burden had an 8-9% higher rate of hypertension across age, gender, and SES-adjusted models. The unique aspect of this study is that it looked at multiple facets of discrimination: every day, lifetime, and burden of discrimination. The impact of discrimination was still present in the sample populations after behavioral risk factors were adjusted (Sims et al., 2012).

In Penner et al.'s (2013) model, health care disparities are evident at the intrapersonal and interpersonal levels. The intrapersonal level consists of two subcategories: racial minority patients who may have developed a history of racist beliefs/practices, social categorization/identity, the expectation of prejudice or discriminating treatment and identity-based motivation; and non-minority physicians who engage in stereotyping, racial bias and cognitive load (Penner et al., 2013).

The intrapersonal level of racial minority patients reveals the life experiences of minority patients which influence their race-related thoughts and attitudes toward health care-related behaviors and feelings (Penner et al., 2013). Black Americans significantly report less trust in health care providers even when socio-demographic data, prior experiences in health care, and structural components of care are controlled (Armstrong et al., 2013). Past experience with racial discrimination has contributed to the mistrust between racially discordant patients and physicians. Greer (2014) found that the perceived racial bias was the strongest predictor of mistrust and lower levels of compliance with health care regimen.

Research has shown that racial and ethnic patients are more trusting, utilize more services, are more involved in decision-making and adhere to more medical advice when the patient and physician share racial concordance (Hagiwara et al., 2013; Penner et al., 2013). Hagiwara et al. (2013) conducted a U.S. study in the city of Detroit that demonstrated a significant positive relationship between general trust and specific adherence between black patients and racially discordant physicians. Creating a patient – physician relationship that is concordant can be a challenge in today’s society where white physicians are the dominant practicing racial group and medical students are predominately white. Black males are lower than other minorities in medical students and applicants (O’Reilly, 2013). Figure 4 illustrates the percentage of U.S. medical school applicants by race/ethnicity from 2014-2015 (AAMC, 2015).

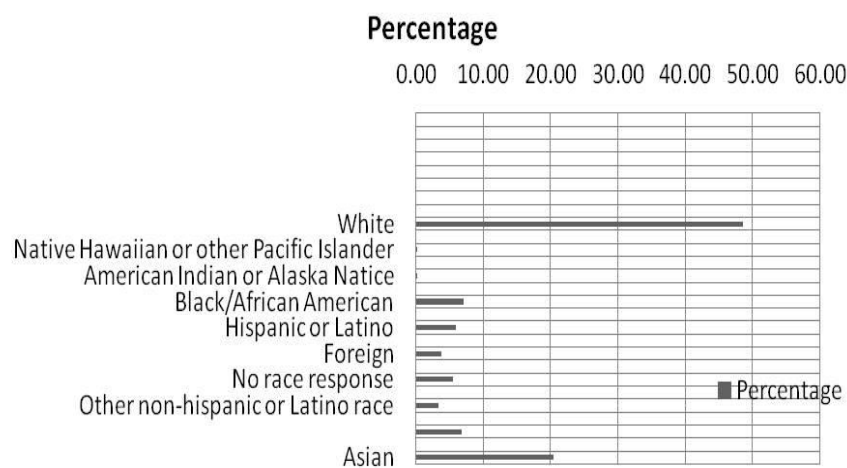


Figure 4. This figure shows the percentage of U.S. medical school applicants by race/ethnicity during 2014-2015. From “Applicants and matriculants data” by Association of American Medical College (AAMC), 2015. Copyright 2015 by American Medical College.

The interpersonal level encompasses social identity (in-group favoritism, out-group derogation), divergent interaction goals, intergroup anxiety, and stress, as well as implicit and explicit attitudes (Penner et al., 2013). Racially discordant relationships found in health care can accentuate group membership, known as social categorization (Penner et al., 2013). Health care provider bias does play a role in health disparities (Dovidio & Fiske, 2012). Racial bias can be explicit or implicit. Explicit bias is openly and freely expressed whereas implicit bias may not be consciously recognized and revealed only in subtle ways by the deliverer (Blair et al., 2013; Dovidio & Fiske, 2012). Research has documented that physicians have more negative explicit attitudes toward black versus white patients which promote stereotyping social categories concerning non-compliance with medical advice, and influences physicians' medical treatment decisions (Cooper et al., 2012). Dovidio and Fiske (2012) pointed out that stereotypes differ systematically across groups as well as individuals' emotional responses and behavioral responses.

Implicit bias can relate to general racial bias and present itself in stereotyping as to how well patients will adhere to medical compliance (Cooper et al., 2012). Dovidio and Fiske (2012) rationalized that although health care professionals are devoted to caring for others and are trained to be rational rather than emotional, the time constraints and pressures of providing care can put an overwhelming demand on their cognitive resources resulting in bias tendencies similar to society's views. Cooper et al. (2012) found that a negative effect of implicit racial bias can be witnessed in communication approaches and negative patient ratings especially among black patients who report lower levels of

patient-centered communication resulting in lower trust and confidence in physicians. Dovidio and Fiske (2012) found that quality of communication between inter-racial group communications resulted in less-patient centeredness and was less positive. The challenge with implicit racial bias is that physicians are unaware of any communication or non-verbal actions that may reveal racial bias influences. Dovidio and Fiske (2012) asserted that prejudice and stereotypes do not have to be intentionally activated to have been witnessed as overt discrimination; people's actions are automatic, revealing stereotypical beliefs, emotional prejudices, and discriminatory tendencies. Willard, Issac, and Carney (2015) stated that implicit bias can be readily detected in nonverbal behaviors. These nonverbal behaviors can be witnessed by less speaking time, less smiling, more speech errors, more authoritative tone, and less patient-centered interactions (Cooper et al., 2012; Dovidio & Fiske, 2012).

Perceived discrimination from past experiences leads to lack of trust, reduced use of health care services, and less adherence to care recommendations (Hausmann et al., 2011). These reactive behaviors to either explicit or implicit discrimination can play a role in the health care disparities among ethnic populations. The experienced or perceived discrimination creates a path for the health care encounter which attributes toward adherence to treatment, health outcomes, patient satisfaction, and likeliness to return for care. This results in a path as shown in Figure 5.

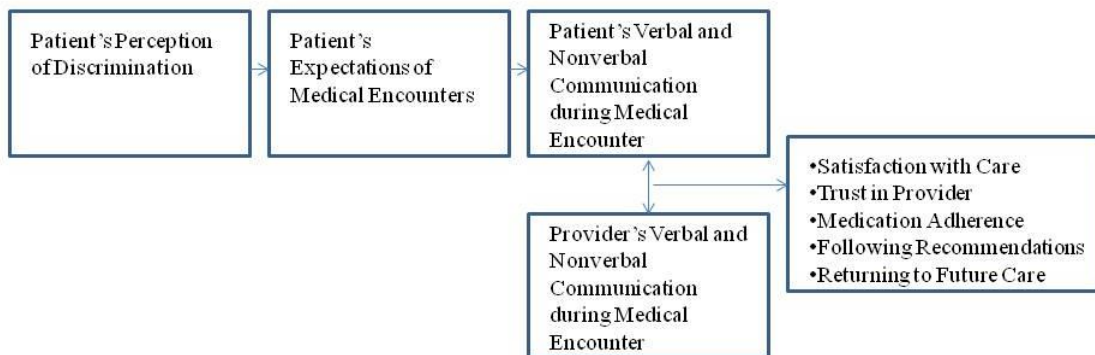


Figure 5. This figure illustrates the theoretical path from perceived discrimination to patient disengagement through patient-provider communication. From “Theoretical path from perceived discrimination to patient disengagement through patient-provider communication” by L.R.M. Hausmann, M.J. Hannon, D.M. Kresevic, B.H. Hanusa, C.K. Kwoh & S.A. Ibrahim, 2011, *Medical Care*, 49(7), p.11. Copyright 2011 by Leslie R. Hausmann. Reprinted with permission.

Health care disparities have been attributed to biological, genetic, and social factors, including health care provider discrimination and bias. Although discrimination is not the sole indicator in health care disparities in ethnic populations, it is an area that can be addressed through education and training of health care providers. In this study, I will focus on the relationship of implementing cultural competence initiatives in a health care system and demonstrate how it meets the expectations of the patients’ perceptions of quality care.

Cultural Competence

Cultural competence strives for more accessible health care services that are efficient and suitable for all ethnic groups (Kirmayer, 2012). Cultural competence requires more than knowledge of different cultures; it is an understanding one’s own personal view of the world, awareness of nuances within a given culture, as well as communication styles (Goodman, 2012). Since the introduction of cultural competency in

the 1980s, the frameworks and models have continued to develop and grow (Truong, Paradies, & Priest, 2014)

Cultural competence can be implemented at the organizational level through training and development within the composition of the employees and through specific models of care (Kirmayer, 2012). Health care organizations can be viewed as a systems approach as they have many interrelated and interdependent departments working together for patients such as direct care, finance, nutrition, ancillary, etc. (Weech-Maldonado et al., 2012). Through an organization systems approach, cultural competence can be embedded into the organizational culture and establish new expectations for patient success.

Organizational level cultural competence has been influenced by federal guidelines and regulations inspired by the United States Department of Health and Human Services which identified main components of cultural competence. These include: (a) organizational values; (b) governance; (c) planning and monitoring/evaluation; (d) communication; (e) staff development; (f) organizational infrastructure; and (g) services and interventions (U.S. Department of Health & Human Services, 1997; Kirmayer, 2012). These findings led to the development of national standards. The OMH, U.S. Department of Health and Human Services (2013), has created national standards to help reduce disparities, improve quality, and help eliminate health care disparities; these standards are the National Standards for Culturally and Linguistically Appropriate Services in Health and Health Care (The National CLAS Standards). CLAS standards provide a roadmap for health care organizations in the

delivery of care (Weech-Maldonado et al., 2012). Although the CLAS standards are developed for organizational level initiatives, they can be applied to individual providers. These standards further encourage the involvement of the organization within the community being served (U.S. Department of Health and Human Services, 2013). The Institute for Delivery in Health Management in partnership with the Health Research and Educational Trust and the AHA conducted a study on “Diversity and Disparities: A Benchmark Study of U.S. Hospitals, 2013” that determines a cultural composite score. The composite score is considered a cultural competence score for individually participating hospitals based upon the questions addressing their actions to identify and address health disparities.

Cultural competence is a developmental process and consists of three components: knowledge, skills, and attitude (Alizadeh & Chavan, 2015; Campinha-Bacote, 2011; Chao et al., 2011). The knowledge is the awareness of other cultural beliefs, values, and practices. Skills and attitude reflect a person’s motivation and ability to act upon the differences in the best interest of the other party (Campinha-Bacote, 2011). Understanding cultural influences requires a health care provider to look beyond his or her comfort zone to empathize with another individual’s practices.

The process of cultural competence in the delivery of health care services developed by Campinha-Bacote (1994) identified cultural competence as an ongoing process for development by health care providers in bestowing culturally sensitive care to clients. The components of this model provide the basis for Campinha-Bacote’s later models, which encompassed cultural awareness, cultural knowledge, cultural skill,

cultural encounters, and cultural desire. It is important to note that the focus of Campinha-Bacote's models are not about being culturally competent but becoming culturally competent as it is a continuous, growing process (Campinha-Bacote, 2003). In this study, I focused on Campinha-Bacote's earliest model of cultural competence (See Figure 6) as it best supports the efforts of organizational level cultural competence. As mentioned above, the later models incorporate cultural desire which is not a component that applies to organizational initiatives.

Cultural awareness is the process of becoming sensitive to the values, beliefs, and practices of different cultures as well as a self-assessment process to realize one's personal views, biases, and prejudices (Campinha -Bacote, 1999; Campinha-Bacote, 2003). Cultural knowledge is the educational process for obtaining a foundation of worldly views on different cultures. Cultural skill is the ability to gather appropriate cultural information from the client to address culturally appropriate assessments and care. Cultural encounter is the engagement process of the health care provider with culturally diverse clients. Cultural desire is the driving force of the health care provider to engage in cultural competence (Campinha -Bacote, 1999).

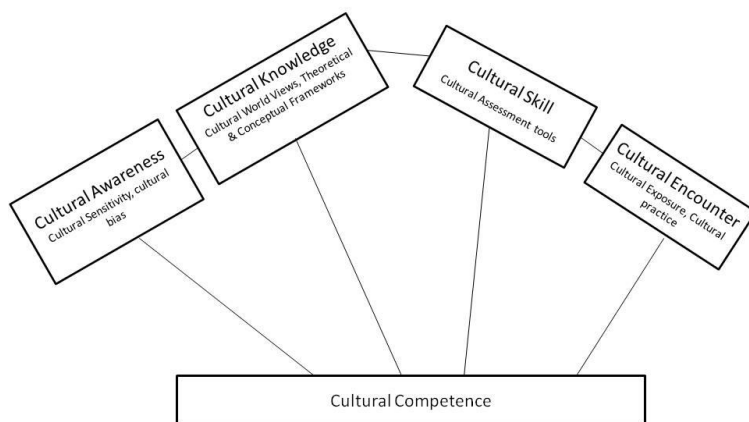


Figure 6. This model illustrates Campinha- Bacote’s earliest model of culturally competent care and its components. From “The challenge of cultural diversity for nurse educators,” by J. Campinha-Bacote & T. Langenkamp, 1996, *The Journal of Continuing Education in Nursing*, 27(2), p. 60. Copyright 1991 Campinha-Bacote. Reprinted with permission from Transcultural C.A.R.E. Associates.

Each of the constructs of the process of cultural competence in the delivery of the health care services model is interdependent; all constructs need to be experienced and addressed for a true cultural competence process to occur. Cultural competence occurs when consideration of cultural context is provided to the patient by the provider (Starr & Wallace, 2011). The model is effective for all areas of health care provider managerial practices and organizations (Campinha-Bacote, 2002).

One criticism of the foundational cultural competence models is that the models offer idealized solutions and do not address real-life challenges and problems during the normal course of patient-provider interaction (Willen & Carpenter-Song, 2013). Another criticism addresses the configuration of cultural competence; cultural competence has been based upon five ethno-racial blocs and the limitations produced by these blocs do

not address the true diversity of populations (Kimayer, 2012). This criticism continues to gain validity as the ethno bloc lines continue to blur as individuals from different ethnic groups marry and reproduce.

The most pertinent subgroups in the United States are based upon social status, age, and ethnicity. Every patient presents with a unique set of beliefs, practices, values, and life experiences that shape his or her perceptions of health care and influences his or her health decisions (Roberts et al., 2011). These distinct behaviors, preferences, and beliefs are the core factors health care providers need to be sensitive to when caring for patients of diverse cultures. By focusing on cultural and subgroup factors, health care providers will have a better understanding of the patients' needs and can communicate in a more effective manner.

Cultural competence training has shown results of improved attitude, communication, and behavior in health care workers and positive health outcomes for patients (Long, 2012). Increasing cultural competency training to health care providers can improve the quality of care and reduce significant health disparities among ethnic populations (Mayo, Sherrill, Truong, & Nichols, 2014). Improving health is the desired outcome for all patients. When the care received has met patient expectations, the perception of health care quality increased.

Health care quality has two main components: 1) functional and 2) technical quality. Patients perceive functional quality based upon the manner and delivery of care. Technical quality reflects a professional community's perception of accurate medical

diagnosis and treatment procedures (Chakravarty, 2011). For this study, functional quality was the construct of focus through patient satisfaction.

Service Quality Through Patient Satisfaction

Patient satisfaction has been directly linked to service quality and was the variable used to measure cultural competence. Patient satisfaction is a construct of service quality that measures a patient's experience after receiving services (Dang et al., 2012). Patient satisfaction as an outcome measures the patient's expectations against the service received (Gallan et al., 2013; Kupfer & Bond, 2012). According to Alrubaiee and Alkaa'ida (2011), "Satisfaction tends to mirror the quality of health services delivered" (p. 107). Customer satisfaction and dissatisfaction can be defined with the disconfirmation theory. If service quality meets the consumer's expectation, satisfaction is high; if expectations are not met (disconfirmation), service quality is low (Malik, 2012). It is important to note that service quality evaluations are through the lens of functional quality, as most patients are not qualified to evaluate technical quality (Kupfer & Bond, 2012). Through the functional lens, patients evaluate the hospital based upon interaction with the health care providers concerning friendliness, a caring attitude, communication of illness and treatment, and respect (Alrubaiee & Alkaa'ida, 2011). Chang, Chen, and Lan (2013) suggested that the first line service provider has a significant impact on a consumer's satisfaction evaluation. They further found that a patient's perception of professional skill and communication ability influenced satisfaction scoring. Critics of patient satisfaction argue three main points about patient satisfaction surveys: (a) patients lack medical training to evaluate satisfaction in service

thus making the evaluation invalid; (b) patient satisfaction is confounded by factors unrelated to quality of processes; and (c) patient satisfaction measures may reflect fulfillment of patients' priori desires such as a particular treatment or medication (Manary et al., 2013).

Presently, CMS has tied patient satisfaction scores to medical reimbursement for services rendered. Providers can be penalized with differing percentage levels based upon hospital patient satisfaction scores. Therefore, if hospitals receive poor satisfaction scores, they will be penalized a percentage reduction of the diagnosis/treatment fee schedule already in place. Low patient satisfaction scores can greatly impact a hospital's bottom line. Improving health outcomes and patient satisfaction scores through culturally sensitive care may play an important role in improving a hospital's bottom line. Therefore, by understanding the diverse cultural needs of its customers, health care organizations may be able to improve patient satisfaction scores. Understanding the relationship between cultural competence initiatives and patient satisfaction scores will aid health care organizations in determining if these initiatives are worth an investment of resources. A broader look at the significance to practice with improved patient satisfaction scores is an increased marketing ability and consumer attraction. Patient satisfaction data can play a role in consumer decisions as many health plans and CMS report patient satisfaction ratings for physician and hospital as the sole comparator (Fenton et al., 2012). Positive patient satisfaction increases a hospital's image for marketing and has been reported to directly impact between a 17 to 27% variation in a hospital's bottom line through income and profits (Alrubaiee & Alkaa'ida, 2011).

Summary and Conclusions

Throughout history, the United States population has been represented by various racial groups, cultures, and ethnicities where the predominant race has been Caucasian, however, current demographics demonstrate a change in the population where no majority race will be predominant, by the year 2050. This dramatic change in demographics has a direct impact on businesses as the consumer base will continue to change and become more diverse. Businesses must be able to adapt and meet the needs of their consumers to remain competitive. In health care, these population shifts mean that patients, the consumers, will bring unique cultural needs to hospitals that will influence the care and service provided. Cultural competency is one tool that can assist hospitals in understanding the needs of patients.

Cultural competency is a behavioral process that inspires the creation of an affirmative action in response to the diverse needs of patients. Cultural competence can be implemented at the organizational level through training, employee composition, and models of patient care. CLAS is one model of culturally competent care that provides a framework at the organizational and provider level. Culturally sensitive providers can help patients understand their health status and the necessary actions to improve overall health, the desired outcome for patients. When care received meets or exceeds patient expectations, perceptions of quality are perceived. Patient satisfaction is linked to service quality. Patient satisfaction as an outcome measures the patient's expectations against the service received through the disconfirmation theory.

Service Quality, Marketing, and Leadership

Positive patient satisfaction increases a hospital's image for marketing and has been reported to directly impact between a 17 to 27% variation in a hospital's bottom line through income and profits (Alrubaiee & Alkaa'ida, 2011). Seminal research that has focused on marketing strategies and profit impact has revealed significant associations between service quality, marketing variables and profitability (Parauraman, Zeithaml, & Berry, 1985). Zeithaml, Berry and Parasuraman (1996) found that improving service quality can increase positive customer behavior intentions to favor the organization and decrease those negative behavior intentions. These authors found that organizations should strive to meet the customers' desired service level as opposed to meeting just their basic needs, prevent service problems, and effectively resolve problems that occur.

As the United States continues to grow in the service-oriented industry, the need to understand quality from a customer perspective and develop both business and marketing strategies becomes important (Hemmasi, Strong, & Taylor, 2011). The key to long-term competitive advantage is to deliver high-quality service that results in high customer satisfaction (Shemwell, Yavas, & Bilgin, 1988). Literature on customer satisfaction and service quality has identified these constructs as conceptually distinct but related (Shemwell et al., 1988; Bansal & Taylor, 2014). Service quality is a cognitive, evaluative, and objective concept while satisfaction is a combination of affective, evaluative, and objective concepts (Shemwell et al., 1988; Malik, 2012; Bansal & Taylor, 2014). Malik (2012) highlighted that customers' measure service quality based upon the pleasure received through the service and not the technical quality.

During the 1990s, relationship marketing emerged as the new business paradigm. Relationship marketer's aim is to attract and care for customers (Grönroos, 1994). Value provides a pivotal role in relationship marketing as more value accrues in relational exchanges than in transactional exchanges (Lindgreen, Hingley, Grant, & Morgan, 2012). Value is the difference between consumers' perceived benefits and costs (McDougall & Levesque, 2000). Malik (2012) explained that business managers need to understand the importance of perceived service value from customers. Through creating superior value to the customer, organizations can improve customer satisfaction and strengthen customer loyalty (Ravald & Grönroos, 1996). Malik (2012) emphasized that due to the intangible nature of the service industry, customers seek trust of a service without knowledge of quality assurance and/or price. It is through marketing that an organization can make promises on the quality of services delivered to attract new customers and initially build a relationship (Angelova & Zekiri, 2011; Grönroos, 2011). However, this does not establish trust.

It is through a systems approach that an organization can meet the promise made to meet customer expectations, build customer satisfaction, and maintain the relationship (Grönroos, 1994; Grönroos, 2011; Navickas & Navikaite, 2014). Dagger, David, and Ng (2011) emphasized the need for organizations to recognize the importance of maintaining consumer relationships through investing in their customers, openly communicating with their customers, and making an effort to maintain the relationship. Service-oriented organizations have a key component to determine customer satisfaction because interaction with the customer is done on every transaction (Grönroos, 1994). Through the

service interaction, organizations are able to monitor customer satisfaction directly and keep abreast of reactions and opinions (Grönoos, 1994). Hospitals participate in this type of monitoring of customer satisfaction through the HCAHPS Survey. It is through this survey mechanism that hospitals randomly make customer inquiries about the quality of services and level of satisfaction for those who utilized the services. According to Malik (2012), perceived quality of service has a direct impact on customer satisfaction. Ontani, Waterman, and Dunagan (2012) stressed that customer satisfaction is key to a business organization's overall survival; health care organizations are no exception.

In today's competitive business world, customer satisfaction has a positive effect on an organization's profitability and sustainable competitive advantage (Angelova & Zekiri, 2011; Williams & Naumann, 2011). The satisfaction-profit chain model supports the relationship between satisfaction and financial performance of an organization as service quality leads to customer satisfaction which leads to customer retention and results in higher profits (Williams & Naumann, 2011). HCAHPS is utilized to capture patient perceived quality scores upon which hospital reimbursement is contingent (Westbrook, Babakus, & Grant, 2014). Zhao, Haley, Spaudling, and Balogh (2015) claimed that more than 1400 hospitals will see a reduction in payment as a result of their quality performance under the CMS value-based purchasing (VBP) program. This reduction in payment demonstrates that hospitals have work to do on understanding and improving perceived quality.

It is through positive customer satisfaction that a business organization can build a successful and profitable foundation as customer satisfaction leads to repeat business,

brand loyalty, willingness to enhance the relationship, price sensitivity, and positive word-of-mouth or advocacy (Angelova & Zekiri, 2011; Fullerton, 2011). Williams and Naumann's (2011) research showed a strong, positive, and significant relationship between satisfaction scores and revenue at the organizational level. Advocacy is the enthusiastic promotion and recommendation of a service to other consumers (Fullerton, 2011). Advocacy can be viewed as a construct of satisfaction, but Fullerton (2011) claimed that the impact is much broader and encompasses loyalty, strong relationship, and customer retention. Consumers seek and identify organizations that share their values and provide value to them (Fullerton, 2011). As consumers find value in an organization, they become repeat customers (Lindgreen et al., 2012). Ontani et al. (2012) stated that satisfied patients are less likely to shop around for services or seek out second opinions and are more likely to comply with prescribed treatments.

Through positive customer relationships, an organization can enhance the corporate image in the eyes of the consumer (Chen & Chen, 2014). Chen and Chen (2014) contended that corporate image is the lubricant between service expectations and past experiences; even when negative experiences have occurred, the consumer considers these temporary mishaps and does not express negative satisfaction. Fullerton (2011) indicated that satisfaction is related to affective commitment and that commitment cannot be established without trust. This trust serves as a foundation for building a relationship whereas the consumer becomes attached to the organization, perceives the organization as reliable and as acting in his or her best interest (Fullerton, 2011). Fullerton (2011) also found that satisfaction does not always lead to advocacy because that depends upon the

relationship developed. If consumers feel trapped in the relationship, advocacy will not occur (Fullerton, 2011). Dagger et al. (2011) contended that to enhance customer commitment, social benefits must be evident in the relationship. Social benefits can include tailored service to the customer, price breaks, or special treatments (Dagger et al., 2011).

Rego, Morgan, and Fornell (2014) disagreed that positive customer satisfaction has a positive impact on future market share. These researchers believed that it is necessary to evaluate the closest supplier of the service and compare the customer satisfaction of both suppliers with the cost and ease of switching to the other providers. It is recommended that service organizations adopt similar customer satisfaction analysis processes as the closest provider and focus on only one aspect: either customer satisfaction or market share objectives at a time (Rego et al., 2014). Looking at customer satisfaction and quality care without market competition is a limited view as organizations create their corporate culture, develop policies, and implement processes to increase customer satisfaction based upon surrounding competition (Makarem & Al-Amin, 2014). Zhao et al. (2015) found that hospital characteristics such as size and type of ownership influenced perceived quality and patient satisfaction. These researchers further found that these measures can also be negatively influenced by socio-economic levels and racial/ethnic characteristics of the patient population being served. With the changing demographics of the United States, there is a growing interaction rate between customers and employees with diverse cultural backgrounds (Sharma, Tam, & Kim, 2012). These interactions are termed intercultural service encounters.

Ihtiyar, Ahmad, and Baroto (2014) addressed intercultural competence as a factor in customer satisfaction and service performance in the retail industry. These researchers found that in complex service organizations, it is important to provide employee training regarding awareness of cultural expectation differences and be able to take these differences into account when serving those customers from diverse cultures. Ihtiyar, Ahmad, and Baroto (2014) claimed cultural expectation differences between employees and customers may have a negative financial impact on an untrained organization; this affects future financial sustainability. Individual treatment is a pivotal key to gaining the competitive advantage in service organizations (Blocker, Flint, Myers, & Slater, 2011).

Williams and Naumann (2011) suggested that customer satisfaction be a focus for strategic goals. Wolf (2015) stressed that leadership and culture play an integral part in patient experience. In their research, managers were evaluated on customer satisfaction levels. Managers addressed customer satisfaction through improved service delivery and evaluated the delivery through customer service performance metrics. These metrics provided a feedback loop as a driver to the process of improvement. Rostan and Rostan (2012) supported measuring customer satisfaction as a critical guide to quality strategies that influence investment and organizational choices. Health care managers should be utilizing the feedback received through the HCAHPS Survey to develop the organization's competitive advantage based upon those positive scoring constructs (Otani, Waterman, & Dunagan, 2012). Keeping managers accountable will aid in the establishment of a service climate. Hong, Liao, Hu, and Jiang (2011) defined service climate as the employees' overall belief about the service expectations throughout the

organization from conception to consumption. These beliefs also include employee experiences of service based upon policies, procedures, support, and rewards.

Management sets the tone and expectations for the organization's service climate. Hong et al. (2011) found service climate had a positive relationship with employee attitudes overall and service performance which is connected to customer satisfaction and financial performance. Subramony and Pugh (2015) acknowledged that service employees' work encompasses both internal (management) and external (consumer) needs and expectations. These findings suggest that an investment in building a strong service climate is important.

Internally, management creates the service climate with leadership style and characteristics. Servant leadership could be a very influential style in health care as it promotes service first (Vogus & McClelland, 2016). Servant leaders display humility as a major characteristic that demonstrates their concern about others above themselves; this humility kindles relationships with employees and motivates employees to become fully engaged in their work (Owens & Hekman, 2012). Followers of servant leaders have trust and respect and this motivates employees to emulate the service behavior carried out by the leader (Owens & Hekman, 2012; Liden, Wayne, Liao, & Meuser, 2014). Servant leaders are characterized by high levels of integrity, concern for followers and strong conceptual skills (Liden et al., 2014). Through a review of research on servant leadership, leaders exhibiting this style demonstrate the following behaviors: a) being a servant; b) empowering others; c) making a difference; e) demonstrating positive personal qualities such as humility, courage and integrity; f) building relationships through empathy,

listening and working together; and g) demonstrating conceptual skills (Flynn, Smither, & Walker, 2015).

Balaji (2014) explained that the effectiveness of relationship marketing strategies is a direct result of the resources committed by the organization in developing and maintaining the relationship. This dedication of resources signifies the organization's commitment to the relationship. Balaji (2014) highlighted the opinion that trust is a pivotal condition of any relationship and the dedication of resources to the relationship may increase trust. Advertising can influence customer satisfaction as it is positively related to perceived and expected quality and thus influences consumers who make decisions about an organization's brand quality based upon the amount that is spent on advertising (Malshe & Agarwal, 2015). It is important to note patients' perception of quality does not equate to the incidence of morbidity or mortality after major surgery (Sheetz, Waits, Girotti, Campbell, & Englesbe, 2014). Therefore, it is essential to build the relationship with the consumer to further understand his or her perceptions of quality expectations.

Makarem and Al-Amin (2014) found that type of ownership of hospitals positively affected patient experience. Their findings indicate that employee ownership positively influenced management processes and service delivery through a professional commitment to the organization's success. Makarem and Al-Amin's (2014) research also indicated the importance of non-clinical factors on patient satisfaction such as cleanliness and communication of information, especially during the discharge process. As the relationship is created and developed, it is critical that management listens to the

customer feedback and expression of needs as it can differ quite significantly from management perceptions (Blocker et al., 2011). The better the interaction that occurs between the consumer and service organization, the better perceived experience and customer satisfaction (Meinzer et al., 2015). This new focus on customer responsiveness is an additional realm of care that has recently been added to health care professionals' workload but it is critical to the success of the organization.

In an effort to build the relationship and enhance customer satisfaction, health care organizations are moving toward a co-production of care (patient-centered care). Historically, health care has been provider-centered and not patient-centered (Vogus & McClelland, 2016). Patient-centered care moves from focusing on provider roles and hierarchy toward an emphasis on patient needs and preferences through active input (Avgar, Givan, & Liu, 2011). Vogus and McClelland (2015) noted that patients who receive care that is compassionate and empathetic exhibit less anxiety, have better health outcomes, and perceive service quality and customer satisfaction more highly. Rathert et al. (2012) attested that almost all studies conducted on patient-centered care and the relationship between patient satisfaction and wellbeing found a positive correlation. Avgar et al. (2011) also found that patient-centered care has a positive relationship with service quality.

An additional benefit of patient-centered care is that it creates an environment to enhance frontline worker outcomes which influences job satisfaction (Avgar et al., 2011). This patient-centered care creates a co-production relationship. McNally, Sharples, Craig, and Goraya (2015) described co-production as a reciprocal relationship wherein equal

power, respect, and responsibility are shared between the patient and health care provider. Through an interactive communication process, health care providers are able to gather a more personalized knowledge of the patient, his or her health beliefs, and the patient's physical or emotional needs (Vogus & McClelland, 2016). In addition, patients and family members are granted agency and choice during patient-centered care which influences satisfaction (Rathert et al., 2012). Marketing strategies to promote co-production have been found to be successful in virtual communities; thus, finding ways to promote customer participation is of interest (Kunz & Hogueve, 2011). Social media is a newer concept that has been linked to brand communities by active communication of customers who communicate with one another (Jahn & Kunz, 2012). This type of marketing encourages co-creation of brand messages through active customer participation versus the traditional relationship marketing when consumers were receivers of the message through reward programs, direct marketing, and public relations outreach (Jahn & Kunz, 2012). Co-creation of a brand is witnessed by a customer who writes and posts a review of a product or service on social media (Larivière et al., 2013). This customer participation has been coined customer engagement and has received greater focus in branding and relationship marketing (DeVries & Carlson, 2014). Branding communities has seen considerable growth on platforms such as Facebook, Twitter and YouTube, while branding pages has sharply increased on Facebook (DeVries & Carlson, 2014). Branding pages on Facebook is effective when users like the branded Facebook page which allows their social network to know they like the brand, while allowing the organization to continue marketing the brand through posts, pictures, videos, and brand-

identified material directly to a user's Facebook newsfeed (DeVries & Carlson, 2014). DeVries and Carlson (2014) found that customer engagement with branded Facebook pages provides two benefits: (a) improved customer relationships and (b) promotion of positive brand advocacy and brand exposure through customer-to-customer interaction.

Through patient-centered care, organizations can create a brand experience that begins at the point of contact with the patient, the provider, and the practice (Wolf, Neiderhauser, Marshburn, & LeVela, 2014). Patient-centered care represents a paradigm shift in the care provided that moves a health care organization beyond standard treatment protocols to a more tailored care plan based on individual needs and preferences (Vogus & McClelland, 2015). Servant leadership provides a strong model of health care as it focuses on the strength of the team, trust, and meeting the needs of the patients (Trastek, Hamilton, & Niles, 2014).

Concerning service quality, a parallel can be drawn between management style and relationship with employees which creates a culture that influences the relationship between employees and consumers. In health care, this is the leadership's relationship with the health care provider and the health care provider's relationship with the patient. It is through servant leadership that a service climate can be created which will result in better service quality and higher patient satisfaction (Avgar et al., 2011; Rathert et al., 2012).

Patient satisfaction is an important variable to the health care industry as reimbursement for services rendered are directly linked to patient satisfaction scores. Low patient satisfaction scores will negatively impact the bottom line for a hospital's

operating budget. In addition, hospitals with higher patient satisfaction will be able to gain a competitive advantage due to marketability and consumer attraction. As the population becomes more heterogeneous, hospitals struggle to improve their services to culturally and ethnically diverse patients. Through the multiple linear regression analysis, in this study, I determined what relationship exists between cultural competence and patient satisfaction. In addition, the study analyzed what components of cultural competency have a more significant relationship with patient satisfaction scores.

In Chapter 3, I covered the research methodology by addressing in detail the design, population, archival data, instrumentation and data analysis plan. I also addressed the threats to validity including external and internal threats. In addition, I discussed all ethical procedures and practices to ensure that confidentiality is maintained for all concerned parties.

Chapter 3: Research Method

The purpose of this nonexperimental quantitative retrospective survey design was to determine what relationship exists between cultural competence and patient satisfaction scores as reported by an HCAHPS survey through the lens of service quality. The IRB approval received for this study is 05-19-16-0043670. In this research study, hospitals who have participated in the HCAHPS survey and the DDBS were utilized. In this chapter, the research design, methodology, archival data, data analysis plan, and threats to validity are addressed.

Through the nonexperimental quantitative study, I determined what relationship exists between cultural competence initiatives and patient satisfaction, thus providing an analysis of the relationship significance for the constructs of cultural competence. In addition, the impact of the constructs of cultural competence individually and in combination was analyzed to determine its significance in regard to patient satisfaction.

Through the lens of the disconfirmation model in service quality, I was able to measure cultural competence through patient satisfaction scores as signaling the gap between customer service expectations and performance as a determinant of service quality. The disconfirmation model holds that satisfaction is based upon the individual's expectations before the service is experienced (Zhao et al., 2012). The preconceived expectation forms the basis for comparing actual service and determines satisfaction or dissatisfaction (Lai & Chen, 2011).

Research Design and Rationale

Independent variables represent what the researcher believes will trigger or explain the change (Frankfort-Nachmias & Nachmias, 2008). The independent variable for this study, cultural competence initiatives, is defined as practices that increase the knowledge, perception, and capability of employees in caring for culturally diverse patients. It includes both organizational and individual initiatives that focus on a systems approach. The independent variable is a composite score gathered from DDBS. The composite score is a calculated competence score for each hospital based upon their actions to identify and address health disparities in their organization.

The dependent variable represents the effect that a researcher wishes to explain (Frankfort-Nachmias & Nachmias, 2008). The dependent variable for this study, patient satisfaction scores, was defined as the aggregate scoring of patients during hospital stays. The dependent variable was patient satisfaction scores as gathered from an HCAHPS survey. The dependent variable was the HCAHPS base score which was an assessment of 32 questions assessing seven internally developed domains of care: (a) nurse communication, (b) nursing services, (c) doctor communication, (d) physical environment, (e) pain control, (f) communication about medicines, and (g) discharge information (Survey of patients' experiences, n.d.). The control variable reduces the risk of inaccurately attributing explanatory power to the independent variables of the study (Frankfort-Nachmias & Nachmias, 2008). The control variable was the health care settings.

The design of this nonexperimental quantitative study was to determine what relationship exists between cultural competence and patient satisfaction scores as reported by an HCAHPS survey. If a positive relationship was determined, hospitals could increase their cultural diversity initiatives to improve patient satisfaction scores, which could directly impact their financial reimbursements. Quantitative studies are applied when post-positivist views are being explored. I aimed to understand the relationship between cultural competence initiatives and patient satisfaction scores. Thus, both cultural competence and patient satisfaction variables data obtained from secondary data sources were analyzed through multiple linear regression analysis to assess the nature of the relationship between the two variables. The data for patient satisfaction scores is available through a publicly available database on the Hospital Compare website and supported by Centers for Medicare & Medicaid Services (Survey of patients' experiences, n.d.). Data on cultural competence initiative scoring was accessed with permission from the AHA, and Health Research & Educational Trust, which conducted a diversity survey in 2013. Subcategories within cultural competency that were examined were: leadership, diversity management planning, cultural competency, and disparities. Subcategories were included in the multiple linear regression analysis to determine the level of significance each has on patient satisfaction scores.

With the use of a multiple linear regression (MLR) model, I examined whether a relationship exists between cultural competence and patient satisfaction scores. The MLR model allows researchers to predict what component in the cultural competence initiatives variable will influence patient satisfaction based on the scores of the predictor

variables (components of cultural competence initiatives). Via the MLR model, the cultural competence initiative variables were the explanatory variables and patient satisfaction was the response variable (Field, 2013). The model relates to the following research questions and hypothesis as the relationship between independent and dependent variables are being sought.

RQ1: What is the relationship between cultural competence initiatives and patient satisfaction scores as revealed by HCAHPS survey results?

H₀₁: Hospitals with cultural competence initiatives do not have significantly higher patient satisfaction scores.

H_{a1}: Hospitals with cultural competence initiatives have significantly higher patient satisfaction scores.

RQ2: What components of cultural competency have a more significant relationship with patient satisfaction scores as revealed by HCAHPS Survey results?

H_{02a}: Leadership is not a significant predictor of patient satisfaction scores as revealed by HCAHPS Survey results.

H_{a2a}: Leadership has a significant relationship with patient satisfaction scores as revealed by HCAHPS Survey results.

H_{02b}: Diversity management planning is not a significant predictor of patient satisfaction scores as revealed by HCAHPS Survey results.

H_{a2b}: Diversity management planning has a significant relationship with patient satisfaction scores as revealed by HCAHPS Survey results.

H₀2c: Cultural competency is not a significant predictor of patient satisfaction scores as revealed by HCAHPS Survey results.

H_a2c: Cultural competency does have a significant relationship with patient satisfaction scores as revealed by HCAHPS Survey results.

H₀2d: Addressing disparities is not a significant predictor of patient satisfaction scores as revealed by HCAHPS Survey results.

H_a2d: Addressing disparities has a significant relationship with patient satisfaction scores as revealed by HCAHPS Survey results.

Methodology

In this study, I explored the relationship between cultural competence initiatives and patient satisfaction scores. The two main variables of the study were cultural competence and patient satisfaction. The data for patient satisfaction scores is available through a publicly available database on the Hospital Compare website and supported by Centers for Medicare & Medicaid Service for the HCAHPS survey (Survey of patients' experiences, n.d.). Data was accessed on cultural competence initiative scoring with permission from the AHA and Health Research & Educational Trust, which conducted a diversity survey in 2013. Subcategories within cultural competency that were examined are: (a) leadership, (b) diversity management planning, (c) cultural competency, and (d) disparities. The researcher for the DDBS coded the hospital identification and compiled the results of the DDBS with the HCAHPS information. Data obtained from secondary sources were analyzed through multiple linear regression analysis to assess the nature of the relationship between two variables. Subcategories with cultural competency, as

determined by the DDBS, were included in the multiple linear regression analysis to determine the level of significance each has on patient satisfaction scores.

The DDBS data was merged with the HCAHPS data by de-identifying the data to uphold the confidentiality of the participating hospitals. Any hospital that did not participate in both surveys was eliminated from this study. Once the data merge was completed, a multiple regression analysis was conducted.

Using multiple regression analysis allows the research analysis to predict scores on patient satisfaction using cultural competence as the independent variable. With this analysis model, this researcher was able to weigh cultural competence and its subcategories relative to each other and their effect on patient satisfaction. Linear regression makes the following assumptions:

1. Additivity and linearity: The outcome variable should be linearly related to any predictors. The combined effects are best described by adding the effects together.
2. Independent errors: For any two observations, the residual terms should be uncorrelated.
3. Homoscedasticity: At each level of the predictor variables, the variance of the residual terms should be constant.
4. Normally distributed errors: It is assumed that the residuals in the model are random, normally distributed variables with a mean of 0.

I tested the assumptions of multiple regression for each of the above assumptions to determine the model's reliability. Additionally, the independent variables for multicollinearity were checked to determine if any of them are significantly related.

Population

The target population will be U.S. based hospitals. The current number of registered U.S. registered hospitals is 5,686 (Health Forum, 2015). The data from the DDBS polled 5,922 hospitals, in 2013, with a 19% response rate totaling 1,109 hospitals (see Appendix D). This data was cross-referenced with those 1,109 hospitals that also participated in the HCAHPS survey. I expected that a majority of the 1,109 hospitals will have participated in HCAHPS as reimbursement monies from CMS are tied to participation.

Sampling and Sampling Procedures

To determine sample size, this researcher must first calculate the standard deviation of the population and determine an acceptable standard of error. Statistical tools can help aid in determining sample sizes. According to the G*Power video with Sheperis (n.d.), a multiple regression analysis can utilize the G* Power software to determine sample size. The following results were found using G*Power: Noncentrality parameter: 3.331662; Critical t: 1.6665997; numerator df: 71; total sample size: 74 and actual power: 0.9510185. These results were found using the following inputs: 1) an A priori type of analysis, t test for linear multiple regression (fixed model, R², deviation from zero), effect size 0.15, error prob: 0.05, power: 0.95 and number of predictors; and 2) the resulting sample size was 74.

Archival Data

The data for patient satisfaction scores is available through a publicly available database on the Hospital Compare website and supported by Centers for Medicare & Medicaid Service for the HCAPHS survey. Data on cultural competence initiative scoring was accessed with permission from the AHA and Health Research & Educational Trust, which conducted a diversity survey in 2013. Subcategories within cultural competency that were examined are: leadership, diversity management planning, cultural competency, and disparities. The researcher for the diversity survey, Kevin Kenward, coded the hospital identification and compiled the results of the DDBS with the HCAHPS data for patient satisfaction. Thus, both cultural competence and patient satisfaction variables data utilized from secondary data sources were analyzed through multiple linear regression models to determine what relationship exists between the two variables. I included subcategories with cultural competency as determined by the DDBS in the multiple linear regression analysis to determine the level of significance each has on patient satisfaction scores.

Measurement of Cultural Competency (Independent Variable)

In 2011 and 2013, the Institute for Diversity in Health Management, an affiliate of the AHA, commissioned the Health Research & Educational Trust to conduct a national survey to determine the level of action hospitals are implementing to reduce health care disparities and improve diversity in leadership and governance (Health Research & Educational Trust, 2014). After a thorough literature review with a panel of experts, the team developed the initial survey in 2010. The instrument was validated by a team of

expert reviewers. Permission was granted by the research director of the DDBS to utilize the data with the condition that hospital confidentiality is maintained. To ensure this confidentiality, the research director offered to merge the DDBS data with the HCAHPS data for each given hospital and then code the hospitals' identities before sharing the data set.

The national survey was conducted via mail to the chief executive officers of all the U.S. registered hospitals at the time the survey was distributed. The survey response rate totaled 1, 109 hospitals (19%). All survey responses were self-reported. The survey questions were categorized into the following categories: (a) leadership and governance; (b) diversity management planning; (c) cultural competency; (d) disparities; (e) overall top performing hospitals; and (f) executive gender equity. For this study, I analyzed categories one through four as subcategories supporting cultural competency initiatives as the independent variable.

The survey is comprised of 26 multi-component close-ended questions that are answered on a multiple choice scale of *true*, *false*, or *I don't know* demonstrating an ordinal level of measurement (Franfort-Nachmias & Nachmias, 2008). Closed-ended responses reveal specific but limited data about attitude, characteristics, or situations (Adams & Lawrence, 2015). Individual question categories were addressed under a multitude of questions and different point values were awarded for each response. The survey reliability resulted in a Chron alpha score of .838 as reported by the research director, Kevin Kenward, Ph.D.

Instrumentation and Operationalization of Constructs

The HCAHPS survey was developed in 2002 by CMS and the Agency for Health Care Research and Quality. The survey was endorsed in May 2005 by the National Quality forum and gained final approval in December 2005 from the federal Office of Management and Budget. The first distribution of the HCAHPS survey was in October 2006 (HCAHPS Fact sheet, 2015).

Measurement of Patient Satisfaction (Dependent Variable)

CMS and U.S. hospitals utilized the HCAHPS Survey to assess patient satisfaction. HCAHPS is a national instrument focused on patient-centered care. It is the first national, standardized survey instrument and a method for data collection on patient assessments of hospital care in the U.S. (Goldstein, Elliott, Lehrman, Hambarsoomian, & Giordano, 2009). This instrument can be distributed alone or as part of a health care facility's own patient satisfaction tool. HCAHPS is a survey tool which has 27 items.

According to one researcher,

Items 1-22 include 18 substantive items used in publicly reported measures and four screener items used to determine the eligibility of patients for a subset of the 18 substantive items. Items 23 to 27 are demographic in nature and are used in patient-mix adjustment (Giordano, Elliot, Goldstein, Lehrman, & Spencer, 2010, p. 28).

Patient Satisfaction Measurement Validity

Of the 18 substantive items, 14 items were analyzed to construct six composite measures. These measures are: communication with nurses, communication with doctors,

responsiveness of hospital staff, pain management, communication about medicines, and discharge information (Giordano et al., 2010). Each of the six composite measures is addressed by two to three questions in the survey. This analysis and development of composite measures aids in the content validity of the survey tool. Content validity supports that all the attributes of the concept are being measured by the instrument (Franfort-Nachmias & Nachmias, 2008).

The level of measurement for dependent variable is ordinal. The survey questions within HCAHPS have an ordinal level of measurement with a standard set of responses: never, sometimes, usually, and always (Goldstein et al., 2010). Ordinal measurement has a rational order but not specific units of measurement between the levels (Franfort-Nachmias & Nachmias, 2008). Interval scales is the most appropriate format for measuring the variables as the researcher is looking to understand the level of patient satisfaction among ethnic patients. Empirical validity for the HCAHPS survey has been reported by Elliot et al. (2009).

Empirical validity is highest as the number of the sample size grows. Empirical validity refers to a test's success in predicting the behavior being assessed (Franfort-Nachmias & Nachmias, 2008). One researcher mentions, "The HCAHPS survey provides a highly reliable measurement of typical patient experiences at the recommended sample size of at least 300 surveys completes" (Elliot et al., 2010, p. 68). As the number of completed surveys drops, so does the empirical validity indicator.

Construct validity is not addressed because the HCAHPS is recognized as the national tool for measuring patient experiences. Other measuring tools will be measured

against HCAHPS to establish construct validity. Construct validity is established when the results of one testing instrument correlate to the results of another measuring tool assessing the same construct (Franfort-Nachmias & Nachmias, 2008).

Reliability of measurement has been established by CMS through the development of standardized survey distribution procedures. The surveys must be distributed through a certified trained vendor who will reach out to patients within 48 hours through six weeks after discharge (HCAHPS Fact Sheet, 2013). Surveys were conducted via mail or telephone interviews. Analysis and reporting of the data were done via an HCAHPS data warehouse. One HCAHPS executive states, “To ensure the differences in HCAHPS results reflect differences in hospital quality only, HCAHPS survey results are adjusted for patient mix and mode of data collection” (HCAHPS Survey, 2013, p.6)

Permission for data access from the HCAHPS project team was redirected to only that data that is available to the public. The only HCAHPS data publicly available are the publicly reported HCAHPS scores (current and previous years are available via the downloadable databases on the Hospital Compare website, (www.medicare.gov/hospitalcompare) and the Summary Data Analysis available on the HCAHPS website (www.hcahponline.org). The data was downloaded from this site for analysis.

Data Analysis Plan

The collected and coded data was entered and analyzed using the Statistical Package for the Social Sciences (SPSS) Version 21 for Windows. The data was cleaned

for hospitals that have not participated in both surveys and this data was eliminated from the study. The descriptive statistics were completed to identifying any outliers.

The research questions for this quantitative study were:

RQ1: What is the relationship between cultural competence initiatives and patient satisfaction scores as revealed by Hospital Consumer Assessment of Health Care Providers and Systems (HCAHPS) Survey results?

H₀₁: Hospitals with cultural competence initiatives do not have significantly higher patient satisfaction scores.

H_{a1}: Hospitals with cultural competence initiatives have significantly higher patient satisfaction scores.

RQ2: What components of cultural competency have a more significant relationship with patient satisfaction scores as revealed by HCAHPS Survey results?

H_{02a}: Leadership is not a significant predictor of patient satisfaction scores as revealed by HCAHPS Survey results.

H_{a2a}: Leadership has a significant relationship with patient satisfaction scores as revealed by HCAHPS Survey results.

H_{02b}: Diversity management planning is not a significant predictor of patient satisfaction scores as revealed by HCAHPS Survey results.

H_{a2b}: Diversity management planning has a significant relationship with patient satisfaction scores as revealed by HCAHPS Survey results.

H₀2c: Cultural competency is not a significant predictor of patient satisfaction scores as revealed by HCAHPS Survey results.

H_a2c: Cultural competency does have a significant relationship with patient satisfaction scores as revealed by HCAHPS Survey results.

H₀2d: Addressing disparities is not a significant predictor of patient satisfaction scores as revealed by HCAHPS Survey results.

H_a2d: Addressing disparities has a significant relationship with patient satisfaction scores as revealed by HCAHPS Survey results.

I tested Hypotheses 1 through 5 by conducting a multiple linear regression analysis of the following model:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon_i \quad (1)$$

where, Y is patient satisfaction score, X₁ is cultural competence initiative, X₂ is leadership, X₃ is diversity management planning, X₄ is cultural competence, X₅ is addressing disparities and ε_i is the error term.

With this analysis model, I was able to weight cultural competence and its subcategories relative to each other and to the effect on patient satisfaction. Linear regression has the following assumptions:

1. Additivity and linearity: The outcome variable should be linearly related to any predictors so that the combined effects are best described by adding the effects together.
2. Independent errors: For any two observations, the residual terms should be uncorrelated.

3. Homoscedasticity: At each level of the predictor variables, the variance of the residual terms should be constant.
4. Normally distributed errors: It is assumed that the residuals in the model are random, normally distributed variables with a mean of 0.

I tested the assumptions of multiple regression for each of the above assumptions to determine the model's reliability. I also addressed the multicollinearity of the independent variables to determine if the independent variables are significantly correlated.

The data was entered into SPSS for analysis of the dependent variable and independent variable. The null hypotheses were tested using a multiple linear regression analysis, which provided the correlation coefficient (R), the goodness of fit (R^2), the regression model coefficients and their p-values, and the F-score for the model along with its associated p-value. A normal probability plot was generated to assess the assumption of normality, and a plot of the predicted values versus the residuals was created to assess the assumptions of linearity and homoscedasticity. The assumption of independence using the Durbin-Watson statistic (d) was tested. The Durbin-Watson statistic ranges from 0 to 4. Most experts agree d should be between 1.5 and 2.15 to indicate independence of observations (Field, 2013) and therefore no violation of assumption.

Threats to Validity

External Validity

The external validity of the study can be assured as the sample population is representative of hospitals across the United States. The external validity of the study can

be assured as the sample population is representative of hospitals across the United States. All hospitals that completed both the DDBS and the HCAHPS were included. Hospitals were only excluded if the DDBS leadership questions were not completed or completed incorrectly. I avoided analysis of the type of ownership, geographical location, or previous history of patient satisfaction scores. However, geographic location and surrounding demographic population may affect generalizations for hospitals across the U.S. as areas with more homogeneous demographics may not feel the need to develop and incorporate cultural competence initiative thus not participating in the DDBS. To avoid inaccurate data analysis and interpretation, I hired a statistician was hired to advise and review all methodology and conclusions to avoid this threat to validity.

Internal Validity

Internal validity could be current historical practices occurring at an individual hospital that may have influenced the implementation of cultural diversity initiatives due to legal discriminatory actions. Due to the coded data, the historical influence was not able to be determined but could influence the level of the cultural competence initiatives present. Interaction with selective internal validity could occur as the population for the sample was derived from hospitals which participated in both the HCAHPS and DDBS. This eliminates any organization that is not reporting patient satisfaction and cultural competence initiatives.

Construct Validity

Construct validity was not addressed as the HCAHPS is recognized as the national tool for measuring patient experiences. Other measuring tools are measured

against HCAPHS to establish construct validity. Construct validity is established when one of the results of one testing instrument correlates to the results of another measuring tool assessing the same construct (Franfort-Nachmias & Nachmias, 2008).

Ethical Procedures

Agreement to access the data was given by the researcher for the DDBS. In order to maintain the confidentiality of the participating hospitals, the data was merged with the HCAHPS Survey data and coded before being made available for this research. HCAHPS data was taken from a publically available domain so no permission to use was needed. The data is aggregated and does not reveal any personal patient information based upon hospital stay. Data for this research was coded before being received by the researcher, Kevin Kenward, and therefore no ability to determine specific hospital scores was present.

Summary

This chapter was a presentation of the project design and methodology. In this study, I aimed to understand the relationship between cultural competence initiatives on patient satisfaction scores. The two main variables of the study were cultural competence and patient satisfaction. I used data for cultural competence from the DDBS conducted by the AHA in 2013. I also used data for patient satisfaction scores from the HCAHPS Survey developed through CMS. Thus, both cultural competence and patient satisfaction variables data from secondary data sources were utilized and analyzed them through multiple linear regression models to determine what relationship existed between the two

variables. Chapter 4 will provide a discussion of the analysis and results of the study as well as multiple regression analysis.

Chapter 4: Results

As the U.S. population becomes more heterogeneous, the diverse population becomes a challenge to hospitals in providing quality and satisfactory care to all patients. The purpose of this nonexperimental quantitative retrospective survey design was to determine what relationship exists between cultural competence and patient satisfaction scores as reported by the HCAHPS survey through the lens of service quality. Cultural competence initiatives, the independent variable, encompassed a construct that addresses organizational practices such as leadership, diversity management planning, cultural competency, and disparities. The independent variable was a composite score gathered from the DDBS. The composite score represented a cultural competence rating for participating hospitals based upon efforts to identify and address health disparities.

Patient satisfaction scores, the dependent variable, were defined as the aggregate scoring of patient satisfaction during hospital stays and were gathered from the HCAHPS Survey. This survey represents a base score, which is the result of 32 questions assessing seven internally developed domains of care: (a) nurse communication, (b) nursing services, (c) doctor communication, (d) physical environment, (e) pain control, (f) communication about medicines, and (g) discharge information (Survey of patients' experiences, n.d.). The control variable represents health care settings. I utilized data from those hospitals which participated in both the HCAHPS survey and DDBS.

Research Questions and Hypotheses

The research questions for this non-experimental quantitative retrospective survey design were:

RQ1: What is the relationship between cultural competence initiatives and patient satisfaction scores as revealed by HCAHPS Survey results?

H₀1: Hospitals with cultural competence initiatives do not have significantly higher patient satisfaction scores.

H_a1: Hospitals with cultural competence initiatives have significantly higher patient satisfaction scores.

RQ2: What components of cultural competency have a more significant relationship with patient satisfaction scores as revealed by HCAHPS Survey results?

H₀2a: Leadership is not a significant predictor of patient satisfaction scores as revealed by HCAHPS Survey results.

H_a2a: Leadership has a significant relationship with patient satisfaction scores as revealed by HCAHPS Survey results.

H₀2b: Diversity management planning is not a significant predictor of patient satisfaction scores as revealed by HCAHPS Survey results.

H_a2b: Diversity management planning has a significant relationship with patient satisfaction scores as revealed by HCAHPS Survey results.

H₀2c: Cultural competency is not a significant predictor of patient satisfaction scores as revealed by HCAHPS Survey results.

H_a2c: Cultural competency does have a significant relationship with patient satisfaction scores as revealed by HCAHPS Survey results.

H₀2d: Addressing disparities is not a significant predictor of patient satisfaction scores as revealed by HCAHPS Survey results.

H_a2d: Addressing disparities has a significant relationship with patient satisfaction scores as revealed by HCAHPS Survey results.

Hypotheses 1 through 2d were tested by conducting a multiple linear regression analysis of the following model:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon_i \quad (1)$$

where, *Y* is patient satisfaction score, *X₁* is cultural competence initiative, *X₂* is leadership, *X₃* is diversity management planning, *X₄* is cultural competence, *X₅* is addressing disparities and ε_i is the error term.

Chapter 4 provides details on the data collection and analysis conducted, and reports the findings of the statistical analysis. The analysis is discussed by first presenting findings in regard to RQ1, followed by findings for RQ2. With RQ2, the subcategory findings are discussed by the individual weight each one demonstrated on patient satisfaction scores.

Data Collection

This research presented the analysis of two secondary data sets, one representing cultural competence initiatives and one representing patient satisfaction. The data for patient satisfaction scores is available through a publicly available database on the Hospital Compare website and supported by Centers for Medicare & Medicaid Service for the HCAHPS survey (Survey of patients' experiences, n.d.). The data on cultural competence initiative scoring was utilized with permission from the AHA and Health

Research & Educational Trust, which conducted a diversity survey in 2013. The researcher for the DDBS, Dr. Kevin Kenward, coded the hospital identification and compiled the results of the DDBS with the HCAHPS data for patient satisfaction. I was provided a coded Excel spreadsheet containing both data sets combined and aligned for hospitals that participated in both surveys. The number of hospitals that participated in both surveys totaled 1,118. The final data set eliminated hospitals that did not complete the questions for the leadership category correctly or completely. The final number of hospitals in the sample population totaled 349.

I avoided analysis of the type of ownership, geographical location, or previous history of patient satisfaction scores. Geographic location and surrounding demographic population may affect generalizations for hospitals across the U.S. as areas with more homogeneous demographics may not feel the need to develop and incorporate cultural competence initiative thus not participating in the DDBS. A majority of hospitals participate in the HCAHPS survey because reimbursement is directly tied to the survey score. In April 2015, 4,167 hospitals publicly reported HCAHPS scores (HCAHPS Fact Sheet, 2015). This is compared to 5,686 registered hospitals in 2015, as reported by the AHA (Fast Facts on US Hospitals, 2015).

Study Results

Research Question 1

Cultural competence initiatives, the independent variable, encompassed constructs that addressed organizational practices such as leadership, diversity management planning, cultural competency, and disparities. The independent variable was a composite

score gathered from the DDBS. The composite score represented a cultural competence rating for participating hospitals based upon efforts to identify and address health disparities.

Patient satisfaction scores, the dependent variable, were defined as the aggregate scoring of patient satisfaction during hospital stays and were gathered from the HCAHPS Survey. This survey represents a base score which is a result of 32 questions assessing seven internally developed domains of care: (a) nurse communication, (b) nursing services, (c) doctor communication, (d) physical environment, (e) pain control, (f) communication about medicines, and (g) discharge information (Survey of patients' experiences, n.d.). The control variable represents health care settings. I utilized data from those hospitals which participated in the HCAHPS survey and the DDBS. The cultural competency data from the AHA diversity survey and the patient satisfaction scores from HCAHPS were used to analyze the first research question.

RQ1: What is the relationship between cultural competence initiatives and patient satisfaction scores as reported by HCAHPS survey results?

The hypothesis statements for this research question were:

H_0 1: Hospitals with cultural competence initiatives do not have significantly higher patient satisfaction scores.

H_a 1: Hospitals with cultural competence initiatives have significantly higher patient satisfaction scores.

The first hypothesis was analyzed with a simple linear regression to determine whether there was a significant relationship between patient satisfaction and cultural

competency initiatives. Patient satisfaction is the dependent variable and was defined as the HCAHPS base score for each hospital, while cultural competency initiatives were calculated from the average of the four subscale scores (diversity management plan, cultural competency, addressing the disparity, leadership) on the AHA DDBS. The results of the linear regression analysis are shown in Tables 1–4 and Figures 7–13.

The mean and standard deviation for patient satisfaction were 24.52 and 15.56, respectively, while the mean and standard deviation for the cultural competency initiative were 35.97 and 13.93, respectively (Table 1). Table 1 also shows that there were 349 hospitals that responded to the two surveys.

Table 1. *Mean and Standard Deviation for the Simple Linear Regression Variables*

	Mean	Std. Deviation	N
HCAHPS Base Score	24.52	15.56	349
Cultural Competency Initiative	35.97	13.93	349

The results of the simple linear regression analysis indicated that the relationship was significant between cultural competency initiatives and patient satisfaction scores (Table 2, $F(1, 347) = 6.337, p = 0.012$).

Table 2. *Simple Linear Regression Analysis Results*
ANOVA

	Sum of Squares	Df	Mean Square	F	Sig. (<i>p</i>)
Regression	1511.554	1	1511.554	6.337	.012
Residual	82771.535	347	238.535		
Total	84283.089	348			

The regression model was $y = 29.9 - 0.15 * x$ (Table 3), where y = patient satisfaction as measured by the hospitals' HCAHPS score and x = cultural competency initiative as measured by the average of the four subscales on the AHA DDBS. The regression coefficient for cultural competency initiative was significant (Table 3, $t_{(348)} = -2.517, p = 0.012$), as was the intercept (Table 3, $t_{(348)} = 13.048, p = 0.000$). The regression equation indicates that the relationship was a negative one, such that as cultural competency initiative increases, patient satisfaction decreases.

Table 3. *Model Coefficients for the Simple Linear Regression Model*

	Unstandardized			
	Coefficients			
	Std.		t	Sig.
	β	Error		
(Constant)	29.9	2.292	13.048	.000
Cultural Competency Initiative	-0.15	.059	-2.517	.012

Even though the relationship between cultural competence initiatives and patients' satisfaction was significant, it was a weak relationship because the Pearson correlation coefficient was only 0.134 (Table 4). The model was not a good fit to the data because r^2 was only 0.018 (Table 4), which indicates that only 1.8% of the variability in patient satisfaction was accounted for by cultural competency initiatives which were confirmed in Figure 7 as the data was widely scattered from the regression line (Fig. 7). The standard error of the estimate was 15.44 (Table 4), which means that 95% of the data fell within ± 30.26 of the regression line. Considering the variables had the potential to range from 1 to 100, the standard error of the means indicated that the data was scattered across more than 60% of the potential data range. The regression model was significant, but the relationship was weak and the model was a poor fit to the data.

Table 4. *Pearson Correlation Coefficient (r), Goodness of Fit (r²) and the Standard Error of the Estimate (S_e)*

<i>r</i>	.134
<i>r</i> ²	.018
<i>S_e</i>	15.44

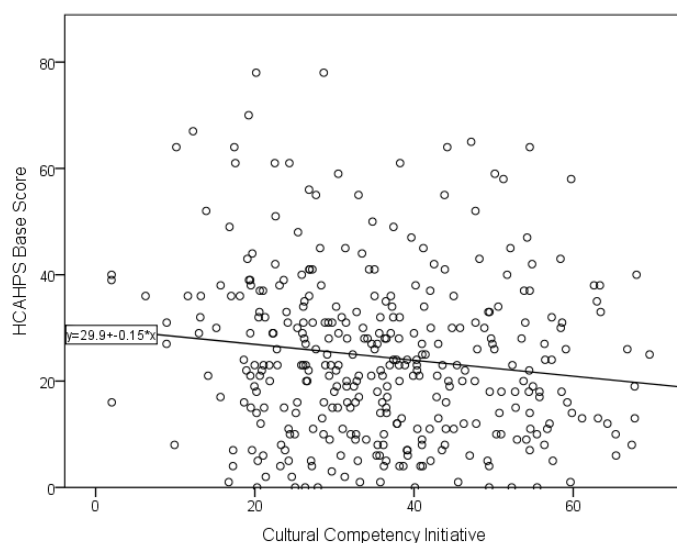


Figure 7. Scatterplot of cultural competency initiative score versus HCAHPS base score. Scatterplot confirms the model is not a good fit as data is widely scattered from the regression lines.

Analysis of Linear Regression Assumptions

This study assessed the assumptions of simple linear regression to determine if they were valid. The data was checked for outliers. Simple linear regression analysis has the following four assumptions:

1. Linearity: The outcome variable should be linearly related to the predictor.
2. Homoscedasticity: At each level of the predictor variables, the variance of the residual terms should be constant.

3. Normally distributed errors: It is assumed that the standardized residuals in the model are normally distributed with a mean of 0 and a standard deviation of 1.
4. Independent errors: For any two observations, the residual terms should be uncorrelated.

The first two assumptions, linearity, and homoscedasticity were assessed using a scatterplot of the regression standardized predicted values versus the standardized residuals (Figure 8). Linearity was not violated because the points are randomly scattered with no apparent pattern from left to right or top to bottom. Homoscedasticity was not violated because there was not a difference in the spread of the residuals, such that they were randomly scattered with no apparent fan-like shape to the distribution. There were some points above +2 but none below -2, and there are two outliers that were above +3 (points 340 and 589). These points demonstrate that there was some skew to the residuals with more positive values than negative values, but this pattern could be accounted for because the data values could not be less than 0.

The third assumption was normally distributed errors, which means the standardized residuals have a normal distribution. This assumption was assessed by looking at a histogram of the residuals and a P-P plot of the residuals. The distribution of the residuals should be normal with a mean of zero and a standard deviation of 1. The histogram of the residuals (Figure 9) showed a normal distribution with a slight skew to the right; however, the mean was very close to zero (1.36×10^{-16}) and the standard deviation was 0.999. While there was a slight skew to the distribution of the residuals, it

was not severe enough to violate the assumption. The P-P plot of the residuals (Fig. 10) indicated a skewed distribution of the residuals because the data swerved above and below the line slightly.

The fourth assumption was verified using the Durbin-Watson statistic (d). The Durbin-Watson statistic ranges from 0 to 4. Most experts agreed, d should be between 1.5 and 2.15 to indicate independence of observations (Field, 2013) and therefore no violation of assumption. For this hypothesis test, $d = 1.755$, which fell within this range and indicated that error terms were independent.

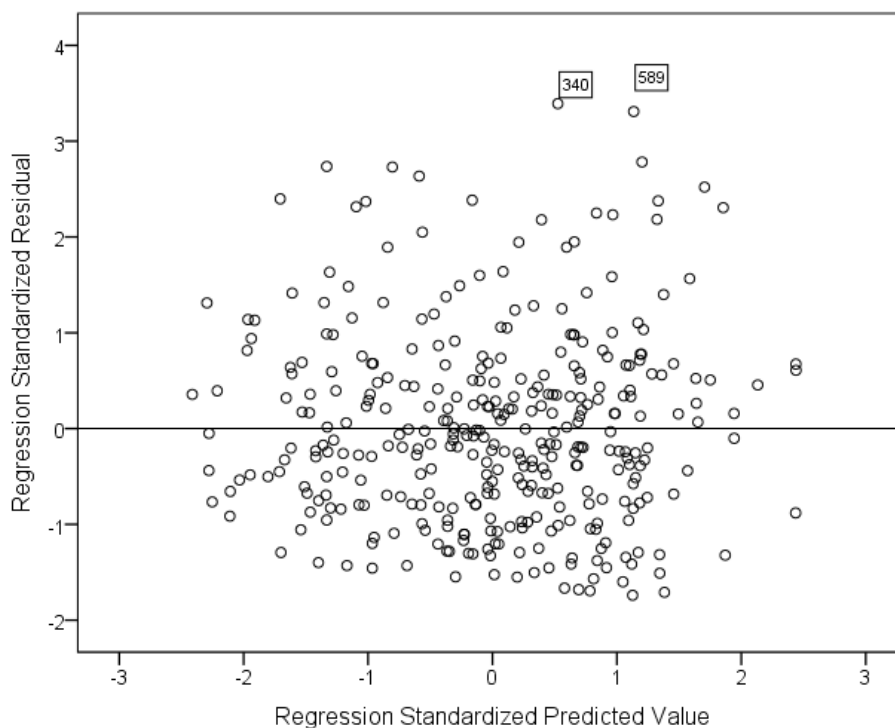


Figure 8. Scatterplot of the standardized predicted values versus the standardized residuals. This scatterplot assessed linearity and homoscedasticity; neither were violated.

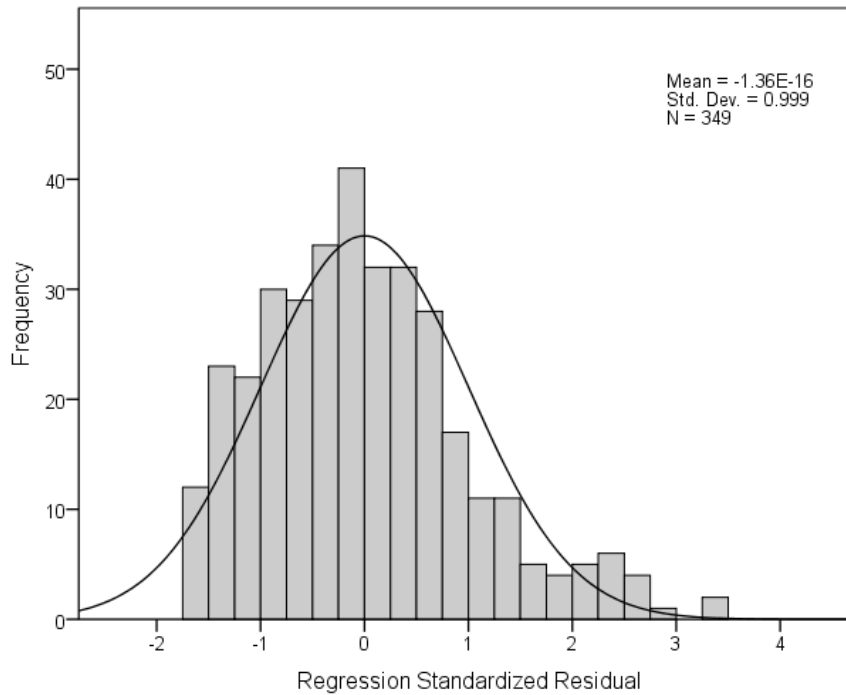


Figure 9. Histogram of standardized residuals. The histogram of the residuals showed a normal distribution with a slight skew to the right; however, the mean was very close to zero (1.36×10^{-16}) and the standard deviation was 0.999.

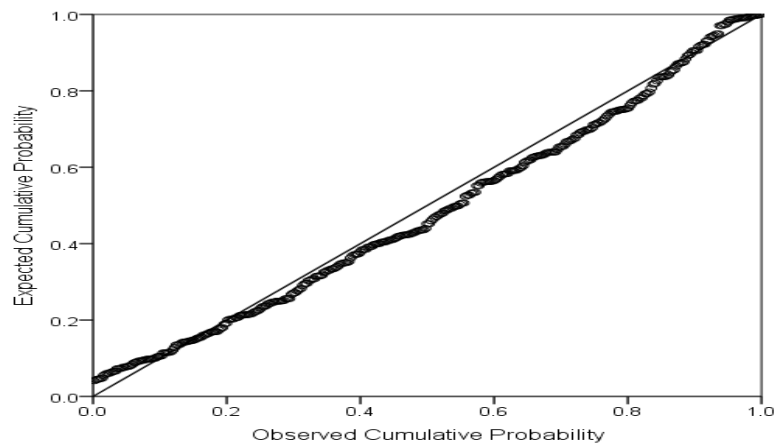


Figure 10. P-P plot of the residuals observed cumulative probability versus the expected cumulative probability. This plot indicated a skewed distribution of the residuals because the data swerved above and below the line slightly.

Research Question 2

The cultural competency data from AHA and the patient satisfaction scores from HCAHPS were used to analyze the second research question and supporting hypotheses.

RQ2: What components of cultural competency have a more significant relationship with patient satisfaction scores as reported by HCAHPS Survey results?

H₀2a: Leadership is not a significant predictor of patient satisfaction scores as reported by HCAHPS Survey results.

H_a2a: Leadership does have a significant relationship with patient satisfaction scores as reported by HCAHPS Survey results.

H₀2b: Diversity management planning is not a significant predictor of patient satisfaction scores as reported by HCAHPS Survey results.

H_a2b: Diversity management planning does have a significant relationship with patient satisfaction scores as reported by HCAHPS Survey results.

H₀2c: Cultural competency is not a significant predictor of patient satisfaction scores as reported by HCAHPS Survey results.

H_a2c: Cultural competency does have a significant relationship with patient satisfaction scores as reported by HCAHPS Survey results.

H₀2d: Addressing disparities is not a significant predictor of patient satisfaction scores as reported by HCAHPS Survey results.

H_a2d: Addressing disparities does have a significant relationship with patient satisfaction scores as reported by HCAHPS Survey results.

This study's second through fifth hypotheses were analyzed using a multiple linear regression to determine whether there was a significant relationship between patient satisfaction and cultural competency initiatives' four constructs: leadership, diversity management planning, cultural competency, and addressing disparities. Patient satisfaction is the dependent variable and was defined as the HCAHPS base score for each hospital, while the four cultural competency initiatives components (diversity management plan, cultural competency, addressing disparity, leadership) were calculated based on the AHA Cultural Competency survey scoring instructions. The results of the multiple linear regression analysis are shown in tables 5-9 and Figures 11-13.

The mean and standard deviation for patient satisfaction were 24.52 and 15.56, respectively, while the mean and standard deviation for leadership were 15.03 and 9.50, diversity management planning were 37.19 and 29.21, cultural competency were 59.64 and 19.26, and addressing disparities were 32.02 and 16.48 (Table 5).

Table 5. Mean and Standard Deviation of the Variables.

	Mean	Std. deviation	N
HCAHPS base score	24.52	15.56	349
Leadership	15.03	9.50	349
Diversity management plan	37.19	29.21	349
Cultural competency	59.64	19.26	349
Addressing disparities	32.02	16.48	349

The results of the multiple linear regression analysis indicated that the model was significant (Table 6, $F_{(4, 344)} = 5.99$, $p = 0.000$). The regression model was, $y = 32.62 - 0.371*x_1 - 0.016*x_2 + 0.012*x_3 - 0.083x_4$ (Table 7), where y = patient satisfaction as measured by the hospitals' HCAHPS base score and x_1 = leadership, x_2 = diversity management planning, x_3 = cultural competency, x_4 = addressing disparities as measured by the AHA Cultural Competency survey. The only variable that was significantly related to patient satisfaction was leadership (Table 7, $t_{(348)} = -4.299$, $p = .000$). For hypothesis 2, the null hypothesis was rejected and it was concluded that there is a significant relationship between leadership as measured by the AHA survey and patient satisfaction as measured by the HCAHPS base score. For the hypotheses 3 – 5, the null hypotheses could not be rejected because the p-values were all greater than .05 (Table 7).

Table 6. *Multiple Linear Regression Analysis Results*

	Sum of squares	df	Mean square	F	Sig. (p)
Regression	5491.904	4	1372.976	5.994	.000
Residual	78791.185	344	229.044		
Total	84283.089	348			

Table 7. *Model Coefficients for the Multiple Linear Regression Model*

	Unstandardized coefficients		Standardized coefficients		
	B	Std. error	Beta	t	Sig.
(Constant)	32.620	2.886		11.304	.000
Leadership	-.371	.086	-.227	-4.299	.000
Diversity management plan	-.016	.035	-.029	-.449	.653
Cultural competency	.012	.055	.015	.220	.826
Addressing disparities	-.083	.063	-.088	-1.319	.188

The relationship is a weak relationship because the Pearson correlation coefficient (R) was only 0.255 (Table 8). The model was not a good fit to the data because R^2 was only 0.065 (Table 8), which indicates that only 6.5% of the variability in patient satisfaction was accounted for by cultural competency initiatives. The adjusted R^2 was 0.054, which was further indication that some of the variables in the model were not significant. The standard error of the estimate was 15.13 (Table 8), which means that 95% of the data fell within ± 30.26 of the regression line. Considering the variables had the potential to range from 1 to 100, the standard error of the means indicated that the data was scattered across more than 60% of the potential data range. The correlation coefficients between patient satisfaction and the independent variables were all weak (Table 9). For RQ2, the regression model was significant, but the relationship was weak,

the model was a poor fit to the data, the correlations between patient satisfaction and the independent variables were all weak.

Table 8. *Multiple Linear Regression Model Summary*

Coefficient	Value
R	.255
R^2	.065
Adjusted R^2	.054
Std. error of the estimate (Se)	15.13

Table 9. *Pearson Correlation Coefficients (R) between HCAHPS Score and the Independent Variables*

Independent Variable	Correlation coefficient (R)	Significance (p)
Leadership	-.236	.000
Diversity management	-.065	.111
Plan		
Cultural competency	-.067	.105
Addressing disparities	-.122	.011
Cultural competency	-.134	.006
Initiative		

Note. $N = 349$

Analysis of Linear Regression Assumptions

The assumptions of multiple linear regression were assessed in this study to determine if they were valid. The data was checked for outliers. Multiple linear regression analysis has the following four assumptions:

1. Additivity and linearity: The outcome variable should be linearly related to any predictors so that the combined effects are best described by adding the effects together.
2. Homoscedasticity: At each level of the predictor variables, the variance of the residual terms should be constant.
3. Normally distributed errors: It is assumed that the standardized residuals in the model are normally distributed with a mean of 0 and a standard deviation of 1.
4. Independent errors: For any two observations, the residual terms should be uncorrelated.

The first two assumptions, linearity/additivity, and homoscedasticity were assessed using a scatter plot of the regression standardized predicted values versus the standardized residuals (Fig. 11). Linearity was not violated because the points are randomly scattered with no apparent pattern from left to right or top to bottom. Even though there was one point to the far left, homoscedasticity was not violated because there was not a difference in the spread of the residuals, such that they were randomly scattered with no apparent fan-like shape to the distribution. There were some points above +2 but none below -2, and there are two outliers that were above +3 (points 340 and 589), so there was some skew to the residuals with more positive values than

negative values, but this pattern could be accounted for because the data values could not be less than 0.

The third assumption was normally distributed errors, which means the standardized residuals have a normal distribution. This assumption was assessed by looking at a histogram of the residuals and a P-P plot of the residuals. The distribution of the residuals should be normal with a mean of zero and a standard deviation of 1. The histogram of the residuals (Fig. 12) showed a normal distribution with a slight skew to the right; however, the mean was very close to zero (1.29×10^{-16}) and the standard deviation was 0.994. While there was a slight skew to the distribution of the residuals, it was not severe enough to violate the assumption. The P-P plot of the residuals (Fig. 13) indicated a skewed distribution of the residuals because the data swerved above and below the line slightly.

The fourth assumption was verified using the Durbin-Watson statistic (d). The Durbin-Watson statistic ranges from 0 to 4. Most experts agree d should be between 1.5 and 2.15 to indicate independence of observations (Field, 2013) and therefore no violation of assumption. For this hypothesis test, $d = 1.776$, which fell within this range and indicated that error terms were independent.

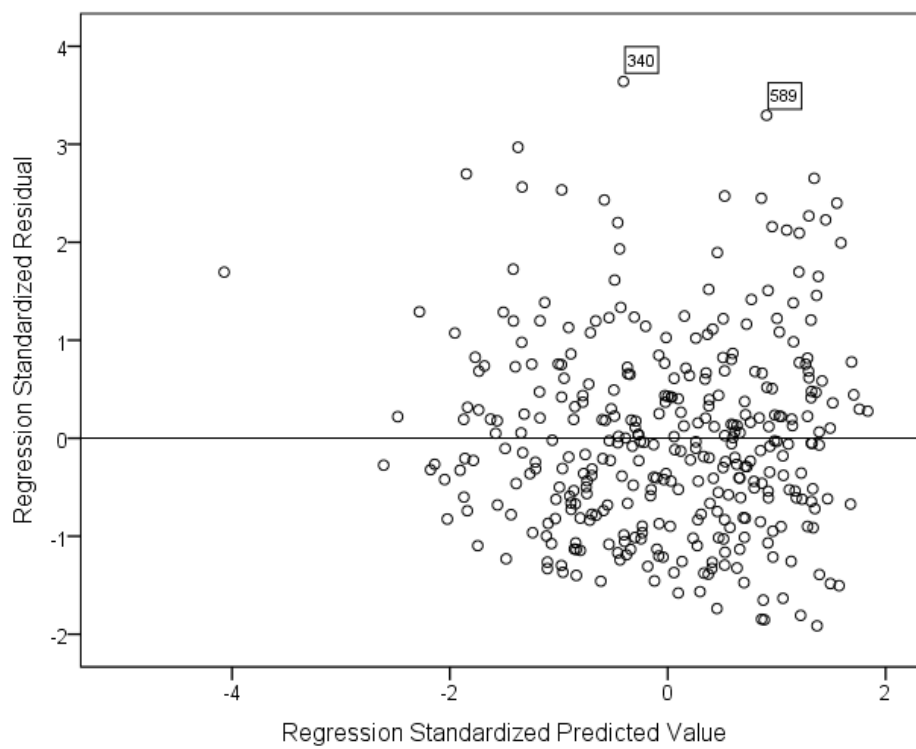


Figure 11. Scatterplot of the standardized predicted values versus the standardized residuals. This scatterplot assessed linearity and homoscedasticity; neither were violated.

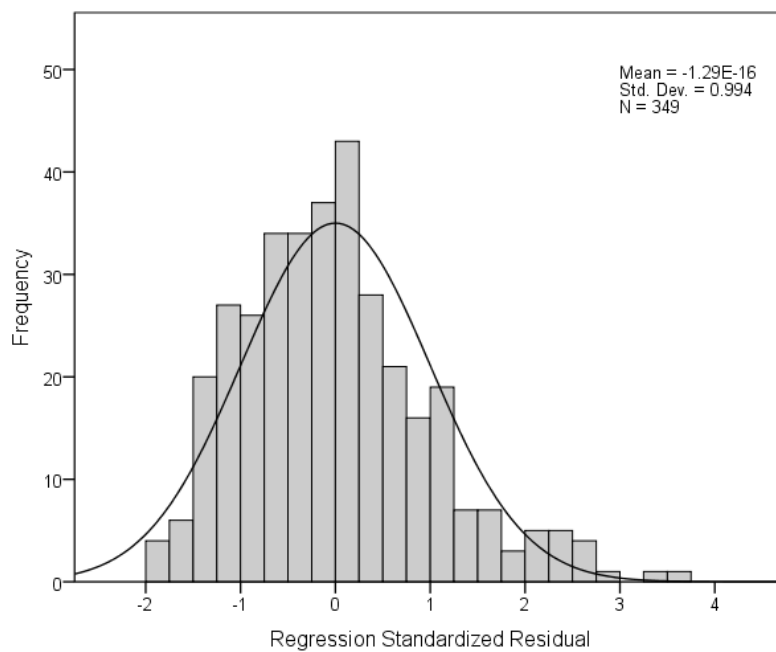


Figure 12. Histogram of standardized residuals. The histogram of the residuals showed a normal distribution with a slight skew to the right; however, the mean was very close to zero (1.29×10^{-16}) and the standard deviation was 0.994. While there was a slight skew to the distribution of the residuals, it was not severe enough to violate the assumption.

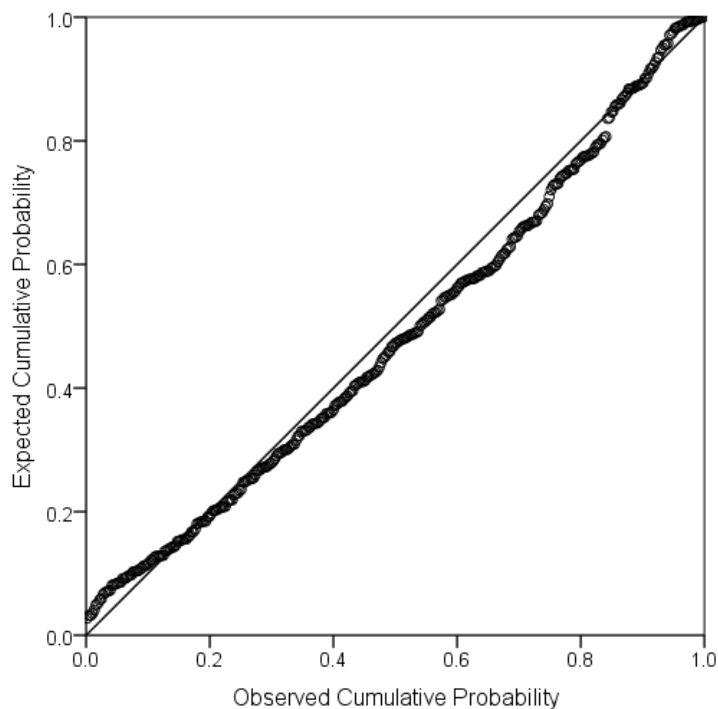


Figure 13. P-P plot of the residuals observed cumulative probability versus the expected cumulative probability. The P-P plot indicated a skewed distribution of the residuals because the data swerved above and below the line slightly.

Summary

In summary, RQ1 addressing the relationship between cultural competence initiatives and patient satisfaction scores by the HCAHPS Survey resulted in a significant relationship between the two variables in a simple linear regression analysis. This relationship is weak and the model was not a good fit to the data. Each of the four subcategories of cultural competence initiatives from the DDBS was analyzed in RQ2 to determine what components of cultural competency have a more significant relationship with patient satisfaction scores as reported by the HCAHPS Survey results. RQ2 consisted of five hypotheses that were analyzed in a multiple linear regression model. The overall results of the analysis indicated a significant relationship between cultural

competence initiatives and patient satisfaction scores; however, the only component of cultural competence initiatives that resulted in a significant relationship with patient satisfaction scores was leadership. The regression model of RQ2 was significant but the relationship was weak and the model was a poor fit to the data for all components of cultural competence initiatives and patient satisfaction.

The findings in this study were that cultural competence does have a significant but weak relationship with patient satisfaction. In addition, leadership as a component of cultural competence also resulted in a significant but weak relationship with patient satisfaction. A discussion on the interpretation of these findings, limitations of the study, recommendations for future research, and implications for social change are presented in Chapter 5.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this nonexperimental quantitative retrospective survey design was to determine what relationship exists between cultural competence and patient satisfaction scores as reported by the HCAHPS survey through the lens of service quality. The independent variable was comprised of the cultural competence initiatives and subcategory constructs that addressed organizational practices such as leadership, diversity management planning, cultural competency, and disparities. The independent variable was a composite score gathered from the DDBS that represented a cultural competence rating for participating hospitals based upon efforts to identify and address health disparities.

Patient satisfaction scores, the dependent variable, were defined as the aggregate scoring of patient satisfaction during hospital stays and were gathered from the HCAHPS survey. This survey represented a base score which was an assessment of 32 questions assessing seven internally developed domains of care: (a) nurse communication, (b) nursing services, (c) doctor communication, (d) physical environment, (e) pain control, (f) communication about medicines, and (g) discharge information (Survey of patients' experiences, n.d.). The control variable represented health care settings. Data was utilized from those hospitals which participated in both the HCAHPS survey and the DDBS. The findings in this study demonstrated that cultural competence does have a significant but weak relationship with patient satisfaction. In addition, leadership as a component of cultural competence also resulted in a significant but weak relationship with patient satisfaction.

Interpretation of Findings

The findings that increased cultural competence initiatives has a significant but negative relationship with patient satisfaction scores does not supports Campinha-Bacote's (2002) process of cultural competence in the delivery of health care, which identified that ongoing cultural competence development by health care providers bestows culturally sensitive care to patients. Campinha-Bacote's model encompasses several constructs as a basis for cultural competence: cultural awareness, cultural knowledge, cultural skill, and cultural encounters (Campinha-Bacote, 1991). Each of these constructs is interdependent and need to be addressed for a true cultural competence process to occur. According to Campinha-Bacote (2002), the model is effective for all areas of health care provider managerial practices and organizations. Although this study does not align with Campinha-Bacote's model, the study had a poor model fit, meaning that the cultural competence initiatives analyzed may not be the best efforts at cultural competence in relation to patient satisfaction and therefore, Campinha-Bacote's model.

Organizational level cultural competence has been influenced by federal guidelines and regulations inspired by the United States Department of Health and Human Services, which identified main components of cultural competence. These include: (a) organizational values, (b) governance, (c) planning and monitoring/evaluation, (d) communication, (e) staff development, (f) organizational infrastructure, and (g) services and interventions (U.S. Department of Health & Human Services, 1997; Kirmayer, 2012). These findings led to the development of national standards. The OMH (2013) has created national standards to help reduce disparities,

improve quality, and help eliminate health care disparities; these standards are the CLAS standards. CLAS standards provide a roadmap for health care organizations in the delivery of care (Weech-Maldonado et al., 2012). Although the CLAS standards are developed for organizational level initiatives, they can be applied to individual providers. These standards further encourage the involvement of the organization within the community being served (U.S. Department of Health and Human Services, 2013).

The Institute for Delivery in Health Management in partnership with the Health Research and Educational Trust and the AHA conducted a study DDDBS built upon CLAS standards that determine a cultural composite score. The composite score is considered a cultural competence score for individually participating hospitals based upon the questions identifying their actions in regard to health disparities, which represented the independent variable in this study. The DDDBS data represents cultural competence initiatives defined as practices that increase the knowledge, perception, and capability of employees in caring for culturally diverse patients. The DDDBS data were represented by a cultural competence initiatives score that measured initiatives in subcategories of leadership, diversity management planning, cultural competency, and disparities. Campinha-Bacote's model does not address specific actions to qualify as each construct of the model but provides a foundation for cultural competence initiatives to be built upon.

Additional findings of this study indicate that leadership as a component of cultural competence also resulted in a significant but weak relationship with patient satisfaction. Wolf (2015) stressed that leadership and culture play an integral part in the

patient experience. In their research, managers were evaluated on customer satisfaction levels. Managers addressed customer satisfaction through improved service delivery and evaluated the delivery through customer service performance metrics. These metrics provided a feedback loop as a driver to the process of improvement. Rostan and Rostan (2012) supported measuring customer satisfaction as a critical guide to quality strategies that influence investment and organizational choices. Health care managers should be utilizing the feedback received through the HCAHPS survey to develop the organization's competitive advantage based upon those positive scoring constructs (Otani et al., 2012).

Keeping managers accountable will help in establishing a service climate. Hong et al., (2011) defined service climate as the employees' overall belief about the service expectations throughout the organization from conception to consumption. These beliefs also include employee experiences of service based upon policies, procedures, support, and rewards. Management sets the tone and expectations for the organization's service climate. Hong et al., (2011) found service climate had a positive relationship with employee attitudes overall and service performance, which is connected to customer satisfaction and financial performance. Subramony and Pugh (2015) acknowledged that service employees' work encompasses both internal (management) and external (consumer) needs and expectations. These findings suggested that an investment in building a strong service climate is important and supported by the findings of this study on leadership's significant relationship to patient satisfaction.

Both research question analyses resulted in a significant but weak relationship between cultural competence initiatives and patient satisfaction. Therefore, it may prove informative to analyze other cultural competence initiatives to determine if a stronger relationship exists. Cultural competence training has shown results of improved attitude, communication, and behavior in health care workers and positive health outcomes for patients (Long, 2012). Increasing cultural competency training to health care providers can improve the quality of care and reduce significant health disparities among ethnic populations (Mayo et al., 2014). Training as a variable or subcategory by itself was not a factor in this study.

Patient satisfaction has been directly linked to service quality and was the variable used to measure the impact of cultural competence initiatives. Patient satisfaction is a construct of service quality that measures a patient's experience after receiving services (Dang et al., 2012). Patient satisfaction as an outcome measures the patient's expectations against the service received (Gallan et al., 2013; Kupfer & Bond, 2012). "Satisfaction tends to mirror the quality of health services delivered" (Alrubaiee & Alkaa'ida, 2011, p. 107). The HCAHPS survey represents patient satisfaction by compiling a base score for each hospital based on the assessment of seven domains of care: (a) nurse communication, (b) nursing services, (c) doctor communication, (d) physical environment, (e) pain control, (f) communication about medicines, and (g) discharge information (Survey of patients' experiences, n.d.). Patients are asked to evaluate a hospital for each of the seven domains for their most recent hospital stay.

Customer satisfaction and dissatisfaction can be defined with the disconfirmation theory. If service quality meets the consumer's expectation, satisfaction is high; if expectations are not met (disconfirmation), service quality is considered low (Malik, 2012). It is important to note that service quality evaluations are made through the lens of functional quality, as most patients are not qualified to evaluate technical quality (Kupfer & Bond, 2012). Through the functional lens, patients evaluate the hospital based upon interaction with the health care providers concerning friendliness, a caring attitude, communication of illness and treatment, and respect (Alrubaice & Alkaa'ida, 2011). Chang et al., (2013) explained that the first line service provider has a significant impact on a consumer's satisfaction evaluation. They further found that a patient's perception of professional skill and communication ability influenced satisfaction scoring. Cultural competence initiatives in this study focused more on organizational actions, which may be less impactful than initiatives on a personal level. Hausmann et al.'s (2011) theoretical model of patient discrimination to patient disengagement through patient-provider communication illustrates a more direct, personal path for cultural competence initiatives to impact patient satisfaction and reflect on service quality.

Limitations of the Study

The limitations of the HCAHPS Survey are the languages in which the survey is available: (a) English, (b) Spanish, (c) Chinese, (d) Russian, and (e) Vietnamese. This does limit the ability to adapt to other cultures (HCAHPS Fact Sheet, 2013). Without the language access to many other ethnic groups, the HCAHPS Survey's language limitations provide a barrier to those non-English speaking patients providing feedback.

Petrullo, et al., 2012) found variations in the survey mode where more positive responses were collected via telephone interviews than via mail surveys. The cause of this may be attributed to interviewer leading effects. Survey delivery mode is based upon hospital choice and can be influenced by the vendor contracted to perform the survey. Variation in survey delivery was not addressed in the data analysis. Therefore, HCAHPS Survey results could be higher for telephone responses versus mail received responses.

An additional limitation is the diversity of patients. Hospitals are not able to control who seeks treatment in the organization; yet, patient demographics such as age, race, educational level, and socioeconomic status are related to a patient's experience and responses on the patient satisfaction survey (Petrullo et al., 2012). Ethnicity data from the HCAHPS survey was not available for use in this study as permission was denied. Having access to data based upon age, race, educational level, and socioeconomic status would further improve the study's ability to determine the relationship of cultural competence and patient satisfaction based on these factors.

Limitations on the Benchmark study are due to hospitals that chose not to participate and those with patient populations that exceeded 85% and/or were less than 16% minorities in c-suite positions that were eliminated from the leadership category. Eliminating hospitals with less diversified patient populations and c-suite positions does reduce the generalizability of the results as the study narrowed the focus of the sample population to those meeting a certain diversification criterion. Looking at all hospitals across the U.S. would provide a more realistic sample of hospital populations.

This research focused on Camphina's earliest model of cultural competence which entails an organizational level approach to cultural competence. Another important factor would be to consider cultural desire as a factor of cultural competence which is evident in later models. Cultural desire encompasses the health care providers' aspiration to seek cultural competency training and capability.

Recommendations

Cultural competence and patient satisfaction have a wealth of articles from scholars, researchers, and practitioners. However, one overall approach to defining cultural competence initiatives and measuring patient satisfaction has yet to be defined, supported and adopted by hospitals. Several recommendations for future research are discussed in this section.

Hospitals are not able to control who seeks treatment in the organization; yet, patient demographics such as age, race, educational level, and socioeconomic status are related to a patient's experience and responses on the patient satisfaction survey (Petrullo et al., 2012). Ethnicity data from the HCAHPS survey was not available for use in this study as permission was denied. Having access to data based upon age, race, educational level, and socioeconomic status would further improve the study's ability to determine the relationship of cultural competence and patient satisfaction based on these factors.

One criticism found in the research addresses the configuration of cultural competence; cultural competence has been based upon five ethno-racial blocs and the limitations produced by these blocs do not address the true diversity of populations

(Kimayer, 2012). This criticism continues to gain validity as the ethno bloc lines continue to blur as individuals from different ethnic groups marry and reproduce.

The most pertinent subgroups in the United States are based upon social status, age, and ethnicity. Every patient presents with a unique set of beliefs, practices, values, and life experiences that shape his or her perceptions of health care and influences his or her health decisions (Roberts et al., 2011). These distinct behaviors, preferences, and beliefs are the core factors health care providers need to be sensitive to when caring for patients of diverse cultures. By focusing on cultural and subgroup factors, health care providers will have a better understanding of the patients' needs and can communicate in a more effective manner. Research focusing more specifically on ethnic patients and their patient satisfaction scores could prove more insightful on cultural competence training.

Another criticism of cultural competence models is that the models offer idealized solutions and do not address real-life challenges and problems during the normal course of patient-provider interaction (Willen & Carpenter-Song, 2013). Research to determine cultural competence model that addresses real-life challenges and problems during patient-provider interactions may prove beneficial to the understanding and effectiveness of cultural competence.

Cultural competence training has resulted of improved attitude, communication, and behavior in health care workers and positive health outcomes for patients (Long, 2012). Increasing cultural competency training to health care providers can improve the quality of care and reduce significant health disparities among ethnic populations (Mayo et al., 2014). Research dedicated to understanding the relationship between cultural

competence training effectiveness and patient satisfaction scores could add to the body of work. The realm of studies on cultural competency training should focus more on the personal level versus the organizational level focus of this study.

Lastly, in an effort to build the relationship and enhance customer satisfaction, health care organizations are moving toward a coproduction of care (patient-centered care). Historically, health care has been provider-centered and not patient-centered (Vogus & McClelland, 2016). Patient-centered care moves from focusing on provider roles and hierarchy toward an emphasis on patient needs and preferences through active input (Avgar, Givan, & Liu, 2011). Vogus and McClelland (2015) indicated that patients who receive care that is compassionate and empathetic exhibit less anxiety, have better health outcomes, and perceive service quality and customer satisfaction more highly. Rathert et al. (2012) attested that almost all studies conducted on patient-centered care and the relationship between patient satisfaction and wellbeing found a positive correlation. Avgar et al. (2011) also found that patient-centered care has a positive relationship with service quality. Patient-centered care represents a paradigm shift in the care provided that moves a health care organization beyond standard treatment protocols to a more tailored care plan based on individual needs and preferences (Vogus & McClelland, 2015). Thus analyzing cultural competence as a component of patient-centered care and the relationship with patient satisfaction may be another theoretical framework to examine.

Implications

These findings are important because, as the United States population continues to grow and diversify, hospitals will need to learn to meet the cultural needs of their patients to improve health outcomes and patient satisfaction rates. Meeting the expectations of customers directly influences the satisfaction rate. From a business perspective, strict payment guidelines for health care organizations has been witnessed under the ACA (Litvak & Bisognano, 2011). Specific payment amounts are provided to the organization based upon health services needed per the guidelines under the ACA. For example, heart attacks will receive X amount of dollars. The organization must provide treatment to the patient within that budgeted amount regardless of cultural issues and medical challenges. To further complicate the issue, if a patient were to return for subsequent health issues on the original heart failure diagnosis within 30 days of initial treatment, no additional payments for re-admission will be made by medical insurers (Joynt & Jha, 2012).

Medical reimbursement has also added a patient satisfaction component to this process. Providers can be penalized at differing percentage levels based upon hospital patient satisfaction scores. Therefore, if hospitals receive poor satisfaction scores, they will be penalized a percentage reduction of the diagnosis/treatment fee schedule already in place. Low patient satisfaction scores can greatly impact a hospital's bottom line. Improving health outcomes and patient satisfaction scores through culturally sensitive care may play an important role in improving a hospital's bottom line. As the health care industry is faced with changing regulations for reimbursement, patient satisfaction scores play a key role in reimbursement percentage rates. Therefore, by understanding the

diverse cultural needs of its customers, health care organizations will be able to improve patient satisfaction scores. Understanding the relationship between cultural competence initiatives and patient satisfaction scores will aid health care organizations in determining if these initiatives are worth an investment of resources. A broader look at the significance to practice with improved patient satisfaction scores is an increased marketing ability and consumer attraction. Patient satisfaction data can play a role in consumer decisions as many health plans and Centers for Medicare & Medicaid report patient satisfaction ratings for physicians and hospitals as the sole comparator (Fenton et al., 2012). Positive patient satisfaction increases a hospital's image for marketing and has been reported to directly impacting between a 17-27 percent variation in a hospital's bottom line through income and profits (Alrubaiee & Alkaa'ida, 2011).

Significance to Social Change

Cultural barriers such as communication, beliefs, and values can stand in the way of optimal health care delivery if these factors are not taken into consideration. Cultural competency will allow health care organizations and providers to understand these cultural factors when health care issues and delivering health care treatment are addressed. Health care and interventions delivered in a culturally appropriate approach result in positive outcomes for the patient (Long, 2012). Increased compliance with health care regimens will result in less frequent hospital visits and improved health, which will decrease the disparity of health care to minorities. The social change may be witnessed; if patients are more satisfied with culturally sensitive care, they may be more likely to engage in earlier health care intervention, care, and adherence, thus impacting

the health care disparities evident in today's health systems. Higher patient satisfaction scores for physicians and hospitals will attract patient consumers for treatment and services thus further improving the business's marketability as satisfied patients tend to exhibit favorable behavioral intentions (Alrubaiee & Alkaa'ida, 2011).

As hospitals witness the impact of cultural competency on patient satisfaction and medical reimbursement, resources can continue to be allocated for cultural competence initiatives for a continual learning process. As health care providers within the hospital grow in competency, patient satisfaction has the potential to increase. Hawthorne, et al., (2014) stated that patient satisfaction includes all aspects of care quality.

Conclusions

Patient satisfaction is an important variable to the health care industry as reimbursement for services rendered are directly linked to patient satisfaction scores. Low patient satisfaction scores will negatively impact the bottom line for a hospital's operating budget. In addition, hospitals with higher patient satisfaction will be able to gain a competitive advantage due to marketability and consumer attraction. As the population becomes more heterogeneous, hospitals struggle to improve their services to culturally and ethnically diverse patients. Culturally sensitive providers can help patients understand their health status and the necessary actions to improve overall health, the desired outcome for patients.

When care received meets or exceeds patient expectations, perceptions of quality are perceived. Positive patient satisfaction increases a hospital's image for marketing and has been reported to directly impact between a 17-27% variation in a hospital's bottom

line through income and profits (Alrubaiee & Alkaa'ida, 2011). As the United States continues to grow in the service-oriented industry, the need to understand quality from a customer perspective and develop both business and marketing strategies becomes important (Hemmasi, Strong, & Taylor, 2011). The key to long-term competitive advantage is to deliver high-quality service that results in high customer satisfaction (Shemwell, Yavas, & Bilgin, 1988) regardless of age, gender, race, ethnicity, sexual preference or religious beliefs.

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Appendix A: Letter of Permission-Campinha-Bacote



Clinical, Administrative, Research
& Educational Consultation
in Transcultural Health Care

J. Campinha-Bacote,
PhD, MAR, PMHCNS-BC, CTN-A, FAAN
Transcultural Healthcare Consultant

Date: August 3, 2015
To: Ms. Kelly Lovati

From: Dr. Josepha Campinha-Bacote
President, Transcultural C.A.R.E. Associates
RE: **Contractual Agreement for Limited Use of Campinha-Bacote's Model of Cultural Competence in a Dissertation**

This letter grants one-time permission to Ms. Kelly Lovati to copy my 1991 model of cultural competence as it appears on my website at www.transculturalcare.net/Cultural_Competence_Model.htm (figure 1), in her final dissertation.

TIME FRAME: Permission to use my model is a one-time use in 2015 -2016 when she submits it to her professor and in her dissertation.

RESTRICTIONS OF COPYING: This permission only grants the copying/ reprinting of my model in Ms. Kelly Lovati **dissertation. She agrees that my model cannot be copied for any other reason outside of her dissertation.** This includes, but not limited to, being copied in another formal or informal publication, a journal article, in another academic paper, handouts for presentations, nor for any PowerPoint or Poster presentations or in any hard copy or electronic formats.

As part of this permission agreement, it is required that Ms. Kelly Lovati will use the following citation when citing my model in her dissertation:

**The Process of Cultural Competence in the
Delivery of Healthcare Services
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Transcultural C.A.R.E. Associates**

GOVERNING LAW: All parties acknowledge that this Contractual Agreement for Limited Use of Campinha-Bacote's Models of Cultural Competence is a valid contract. This contract shall be governed and construed under the laws of the State of Ohio, except as governed by Federal law. Jurisdiction and venue of any dispute or court action arising from or related to this contract shall lie exclusively in or be transferred to Hamilton County Municipal Court, Hamilton County Court of Common Pleas, or the Federal Court situated in the County of Hamilton, Ohio.

ATTORNEY'S FEES AND COSTS: In any action to enforce any provision of this Agreement, the prevailing party will be awarded reasonable attorney's fees and costs.



www.transculturalcare.net

11108 Huntwicke Place
Cincinnati, Ohio 45241

Dr. Josepha Campinha-Bacote

8/3/15
Date

Ms. Kelly Lovati

Date

Appendix B: Letter of Permission–Penner & Publisher

Kelley Lovati

From: Penner, Louis [pennerl@karmanos.org]
Sent: Tuesday, July 28, 2015 9:12 AM
To: Kelley Lovati
Subject: Re: Permission

I'm not sure I replied. You have my permission, but you probably need to check with the publisher as well.

Best of luck with your dissertation.

Lou Penner
 Louis A. Penner, Ph.D.
 Professor
 Department of Oncology
 Wayne State University
 Population Studies and Disparities Research Program Karmanos Cancer Institute

Better treatments. Better outcomes.

CONFIDENTIALITY NOTICE

This message is confidential, intended only for the named recipient(s) and may contain information that is privileged or exempt from disclosure under applicable law. If you are not the intended recipient(s), you are notified that the dissemination, distribution, or copying of this message is strictly prohibited. If you receive this message in error, or are not the named recipient(s), please notify the sender at pennerl@karmanos.org. Delete this e-mail from your computer, and destroy any copies in any form immediately.
 Thank you.

From: Kelley Lovati <[REDACTED]>
 Date: Saturday, July 25, 2015 at 9:47 AM
 To: Louis Penner <[REDACTED]>
 Subject: Permission <[REDACTED]>

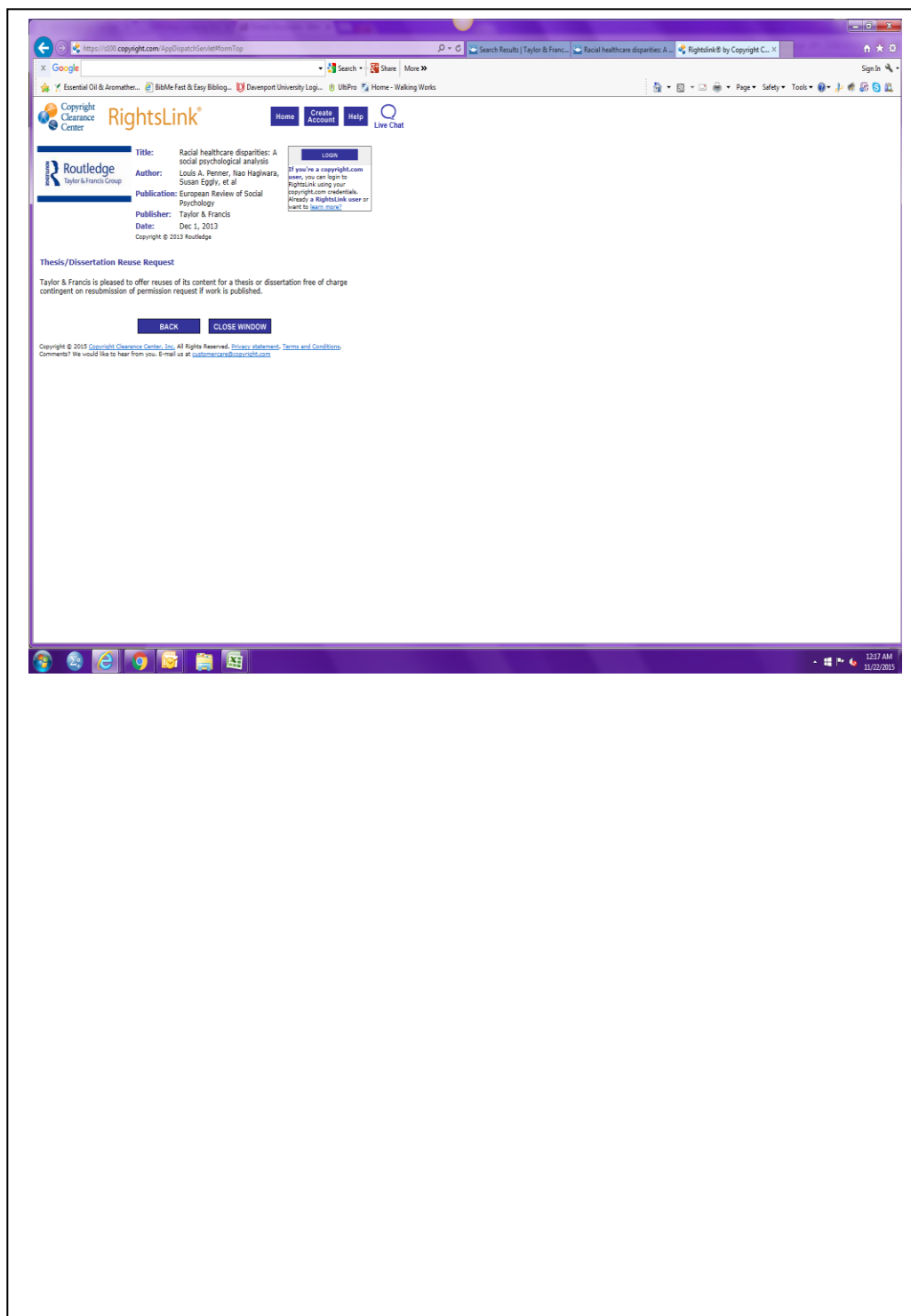
Hi Dr. Penner-

I am currently working on my dissertation proposal on cultural competence training and patient satisfaction in hospital settings. In my research and literature review, I have cited some of your work and would like permission to utilize the figure:

"A multi-level model of causes of healthcare and health status disparities" published in the following article:
 Penner, L.A., Hagiwara, N., Eggly, S., Gaertner, S. L., Albrecht, T.L., & Dovidio, J.F. (2013). Racial healthcare disparities: A social psychological analysis. *European Review of Social Psychology*, 24(1), 70-122. doi: 10.1080.10463283.2013.840973

Thank you for your time and consideration-

Kelley Lovati
 Walden University



Appendix C: Letter of Permission-Hausmann

Kelley Lovati

From: Hausmann, Leslie R [REDACTED]
Sent: Monday, July 27, 2015 9:07 AM
To: 'Kelley Lovati'
Subject: RE: [EXTERNAL] Permission

Greetings,

You have my permission to use the figure. I hope it is helpful as you work on your dissertation.

Best of luck with your work,
 Leslie

From: Kelley Lovati [REDACTED]
Sent: Saturday, July 25, 2015 9:44 AM
To: Hausmann, Leslie R
Subject: [EXTERNAL] Permission

Hi Dr. Hausmann -

I am currently working on my dissertation proposal on cultural competence training and patient satisfaction in hospital settings. In my research and literature review, I have cited some of your work and would like permission to utilize the figure:

“Theoretical path from perceived discrimination to patient disengagement through patient-provider communication”

published in the following article:

Hausmann, L. R. M., Hannon, M. J., Kresevic, D. M., Hanusa, B. H., Kwoh, C. K., & Ibrahim, S. A. (2011). Impact of perceived discrimination in health care on patient-provider communication. *Medical Care*, 49(7), 626–633. doi: 10.1097/MLR.0b013e318215d93c

Thank you for your time and consideration-

Kelley Lovati

Walden University

Appendix D: Letter of Permission-AHA DDBS

Dear Dr. Kevin Kenward

I am a doctoral student from Walden University writing my dissertation titled *A Quantitative Examination of the Impact of Cultural Competence on Patient Satisfaction Scores*, under the direction of my dissertation committee chaired by Dr. Jean Gordon, who can be reached at 954-394-1655/jean.gordon@waldenu.edu.

I would like your permission to use the AHA Diversity Survey data in my research study. I would like to use your data in a multiple regression quantitative analysis with the HCAHPS base scores for hospitals that participated in both surveys. I understand that you will compile and code the data for the confidentiality protection of your respondents.

- I will use the compiled data only for my research study and will not sell or use it with any compensated or curriculum development activities.
- I will include full disclosure of the AHA survey data in my research dissertation.
- I will send a copy of my completed research study to your attention upon completion of the study.

If these are acceptable terms and conditions, please indicate so by replying to me through e-mail:

[REDACTED]

Sincerely,

Kelley Lovati
Doctoral Candidate

You have my permission to use the AHA Diversity Survey data for the purposes mentioned above.



Director of Research
Health Research & Educational Trust

8-21-2015