EVALUATION OF CULTURAL COMPETENCE AND HEALTH DISPARITIES KNOWLEDGE AND SKILL SETS OF PUBLIC HEALTH DEPARTMENT STAFF

A Dissertation

by

MARLA BIANCA HALL

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

May 2012

Major Subject: Health Education

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Approved by:

Co-Chairs of Committee,	Jeffrey J. Guidry
	Danny Ballard
Committee Members,	Lisako J. McKyer
	Corliss Outley
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ABSTRACT

Evaluation of Cultural Competence and Health Disparities Knowledge and Skill Sets of Public Health Department Staff. (May 2012)

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Co-Chairs of Advisory Committee, Dr. Jeffrey J. Guidry
Dr. Danny Ballard

Life expectancy and overall health have improved in recent years for most Americans, thanks in part to an increased focus on preventive medicine and dynamic new advances in medical technology. However, not all Americans are benefiting equally. This suggests a level of urgency for need to assist our public health professionals in obtaining specific skills sets that will assist them in working better with ethnic and racial minority populations. The overall goal of the research was to assess cultural competence knowledge and programmatic skill sets of individuals employed by an urban department of health located in the southwest region of the US. The Theory of Planned Behavior (TPB) guided the research design to effectively evaluate the correlation between behavior and beliefs, attitudes and intention, of an individual, as well as their level of perceived control. Within the program design, 90 participants were identified using convenience sampling. In order to effectively evaluate these constructs, a quantitative research approach was employed to assess attitudes, beliefs, knowledge and competencies of the subject matter. Participants completed the *Cultural Competence*

Assessment (CCA), which is designed to explore individual knowledge, feelings and actions of respondents when interacting with others in health service environments (Schim, 2009). The instrument is based on the cultural competence model, and measures cultural awareness and sensitivity; cultural competence behaviors and cultural diversity experience on a 49 item scale. It seeks to assess actual behaviors through a self report, rather than self-efficacy of performing behaviors. In addition, information was obtained to assess participant perception of organizational promotion of culturally competent care and; availability of opportunities to participate in professional development training. The analysis suggested healthcare professionals who are more knowledgeable and possess attitudes which reflect increased cultural sensitivity, are more likely to engage in culturally competent behaviors. In addition, positive attitudes and increased knowledge were associated with diversity training participation. Respondents reported high levels of interaction with patients from ethnic and racial minorities. Observing the clinical and non-clinical respondents, approximately 47% and 57% respectively, stated their cultural diversity training was an employer sponsored program.

DEDICATION

This dissertation is dedicated to the loving memory of my grandparents, Jesse Philip and Mary Elizabeth Bass.

ACKNOWLEDGEMENTS

I would like to thank my committee chair, Dr. Jeffrey J. Guidry, co-chair, Dr. Danny Ballard and committee members, Dr. Lisako McKyer and Dr. Corliss Outley for their guidance and support throughout the course of this research.

Thanks also go to my friends and colleagues and the department faculty and staff for making my time at Texas A&M University a great experience. I also want to extend my gratitude to Dr. Stephanie Schim, which provided the survey instrument, and to all the employees of the health department who were willing to participate in the study.

Finally, thanks to my mother and father for their encouragement and my son for his patience and love.

NOMENCLATURE

CAS	Cultural Awareness and Sensitivity subscale
CCA	Cultural Competent Assessment subscale
CCB	Culturally Competent Behavior subscale
CSA	Culturally Sensitive Attitudes subscale
TPB	Theory of Planned Behavior

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

1. INTRODUCTION: THE IMPORTANCE OF RESEARCH

1.1 Purpose

Life expectancy and overall health have improved in recent years for most Americans, thanks in part to an increased focus on preventive medicine and dynamic new advances in medical technology (Office of Minority Health & Health Disparities, 2010). However, not all Americans are benefiting equally. For too many racial and ethnic minorities in the United States, good health is elusive, since appropriate care is often associated with an individual's economic status, race, and gender (OMHHD, 2010). Indeed, despite notable progress in the overall health of the nation, there are continuing disparities in the burden of illness and death experienced by Blacks or African Americans, Hispanics or Latinos, American Indians and Alaska Natives, and Native Hawaiian and other Pacific Islanders, compared to the U.S. population as a whole (OMHHD, 2010).

Racial and ethnic health disparity data from a national perspective indicates there is much to learn in the public health workforce about the ongoing health disparity crisis in our state and nation. This suggests a level of urgency for need to assist our public health professionals in obtaining specific skills sets that will assist them in working better with ethnic and racial minority populations. These skills encompass culturally

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This dissertation follows the style of *Social Science & Medicine*.

competent care and entails understanding the social and cultural factors which influence individual health beliefs and behaviors (Harvard Catalyst, 2010).

Heightened levels of cultural competence by public health workers, enables the elimination of health disparities. This concept is well accepted and incorporated into many initiatives of federal organizations, such as the National Institutes of Health and the Agency for Healthcare Research and Quality (Betancourt, Green, Carillo & Park, 2005). The goal is to assess cultural competence knowledge and programmatic skill sets of individuals employed within public health departments. In order to effectively evaluate these constructs, a quantitative research approach was employed to examine attitudes, beliefs, knowledge and competencies of the subject matter.

1.2 Health Disparities

The first attempt at an official definition for "health disparities" was developed in September 1999, in response to a White House initiative. The National Institutes of Health (NIH) convened an NIH-wide working group, charged with developing a strategic plan for reducing health disparities (National Cancer Institute, 2010). That group developed the first NIH definition of health disparities. It was defined as differences in the incidence, prevalence, mortality, and burden of diseases and other adverse health conditions that exist among specific population groups in the United States."

Carter-Pokras and Baquet (2002) noted the term "health disparity" is mostly used exclusively in the United States. However, terms "health inequality" or "health inequity" are commonly used in foreign countries. "Disparity" has taken on the implications of

injustice within the public health and social science paradigm, but can be distinguished from the general term of "inequality". A health disparity should be seen as a chain of events with differences in environment, health status, health outcome; or access to, utilizations of and quality of care (Carter-Pokras & Baquet, 2002).

Dressler, Oths and Gravlee (2005) identified five general models in the literature to explain health disparities: a racial-genetic model; a health behavior model; a socioeconomic status model; a psychosocial stress model; and a structural-constructivist model. The racial-genetic model attempts to explain the health disparities which focus on population differences in the distribution of genetic variants (Dressler et al., 2005). The health behavior model emphasizes differences between racial and ethnic groups in the distribution of individual behaviors related to health outcomes. The socioeconomic status model offers an explanation of health disparities as the over-representation of some racial and ethnic groups within lower socioeconomic statuses (Dressler et al., 2005). The psychosocial stress model examines the stresses associated with minority group status, and particularly the experience of racism and discrimination. The structural-constructivist model explores the intersection of racially stratified social structures with the cultural construction of collective goals and aspirations as the cause of differences in morbidity and mortality (Dressler et al., 2005).

Public health workers are vital in preventing, controlling and eliminating health disparities. The Office of Minority Health (2006) noted health care is a cultural construct, derived from beliefs about the nature of disease and the human body. Because of this, cultural issues are essential in the avenue of delivery of health services treatment

and preventive interventions. By understanding, valuing, and incorporating the cultural differences of populations and exploring personal health-related values and beliefs, public health workers can support a system that directly addresses the unique needs of racial and ethnic minority populations (Office of Minority Health, 2006).

According to Rice (2007), culture influences the community's views toward health, poverty, welfare, crime, and other social and human services areas, in addition to outcomes of public agency services and interventions. Understanding these concepts enables public service delivery providers to avoid stereotypes and biases, as well as the promotion of positive characteristics of particular groups. When a public agency or public service provider does not consider culture, clients may not obtain services or support they need. Consequently, they may also receive services and assistance that could be more harmful than helpful (Rice, 2007). Betancourt, Green and Carrillo (2002) noted the importance of cross-cultural training and education for public health workers to ensure the delivery of quality care (see Figure 1). Training suggestions include: cultural competence education focused on knowledge and skills building to ensure the delivery of quality care, with the incorporation of communication skills, socioeconomic factors; and strategies for addressing bias and racism (Betancourt et al., 2002).

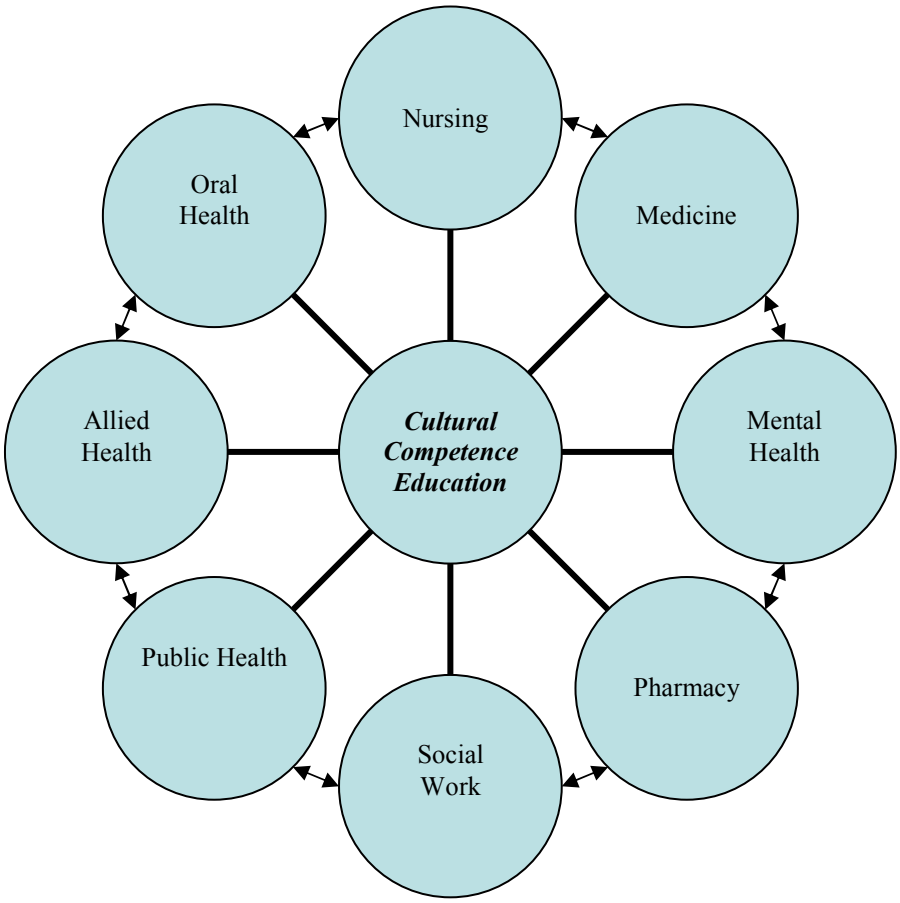

Figure 1. ***Cultural competence professional development need for the public health workforce***

1.3 Cultural Competence

Harvard Catalyst (2010) suggests cultural competence refers to awareness of unique characteristics of the populations for which health professionals provide care. Betancourt et al. (2002) further defines cultural competence in health care as the ability of systems to provide care to patients with diverse values, beliefs and behaviors. This includes tailoring delivery to meet patients' social, cultural, and linguistic needs. Cultural competence is both a vehicle to increase access to quality care for all patients

and as a business strategy to attract new patients through effective communication (Betancourt et al., 2002). Literature identifies various terms often used interchangeably to define cultural competence including awareness, responsiveness, safety and sensitivity. However, unlike cultural sensitivity or responsiveness, cultural competency moves beyond sensitivity or awareness to action (Harvard Catalyst, 2010).

Gallegos, Tindall and Gallegos (2008) stated the term "cultural competence" has become intertwined in health services language and settings. The concept first appeared in social work and counseling psychology literature. Years following, it dispersed within the professional disciplines of nursing, education and most recently, medical education (Gallegos et al., 2008). In the 1980s, as a result of the social directions introduced by the civil rights movements, federal and local governments made the inclusion of cultural competence strategies a funding requirement for pubic health programs (Gallegos et al., 2008).

Researchers determined cultural competency objectives in health care first appeared with public health nurses working with immigrant populations at the turn of the century, who reported differences in the lifestyles and health behaviors of their patients (Dreher & MacNaughton, 2002). In addition, upon the move of nursing education from hospitals to universities, increased exposure to social sciences enabled a broader grasp of understanding of health care, especially those aspects intensely shaped by cultural context (Dreher & MacNaughton, 2002). Nursing is identified as a cultural phenomenon because most expressions of care and comfort, universal to all populations, are learned

responses. These responses derive from social context, and vary across ethnic and racial groups (Dreher & MacNaughton, 2002)

2. ANALYSIS OF HEALTH DISPARITIES ACADEMIC PREPARATION FOR HEALTH PROFESSIONALS

2.1 Undergraduate and Graduate Health Disparities Curriculum

When factors including, access, socioeconomic status and education are controlled, often racial and ethnic minorities receive lower-quality health care than white patients (Smith et al., 2007). Bushy (2008) identified lack of cultural competency of health professionals as having a direct link to minority health disparities. Specifically, being proactive with addressing methodological challenges will contribute to the advancement of health care delivery, as it relates to best practices and improving minority health outcomes (Bushy, 2008). Smith et al. (2007) suggests in addressing disparities, health care professionals must learn their roles in eliminating them. However, curricula focused on addressing and understanding racial and ethnic health disparities, and accepted guidelines on content and delivery of this complex area are lacking (Smith et al., 2007).

Luquis, Perez and Young (2006) utilized surveys to assess current opportunities in health education preparational programs in the area of cultural competence. Academic institutions, offering both undergraduate and graduate degree programs in health education were selected, by utilization of the American Association of Health Education (AAHE) Directory of Institutions (Luquis et al., 2006). The researchers obtained information on the number of courses in each program focusing on cultural competency, the percentage of capstone or core courses that integrate cultural competence, as well as

the skills and content addressed in the courses. In addition, the assessment included questions regarding the level of involvement of faculty members with ethnic/racial minority groups; and their, as well as students', level of knowledge, comfort and commitment in the area (Luquis et al., 2006). According to Luquis et al. (2006), the findings indicated that less than one-third of the programs offer a course devoted to cultural competency in its entirety. Eighty percent reported that they do not provide cultural/diversity training or education programs for their faculty members.

Betancourt, Green, Carrillo and Park (2005) conducted interviews with experts in cultural competency in managed care, government and academe, to assess their perspectives of the field in improving the quality of and eliminating minority health disparities in health care. Many of the informants expressed concern regarding stereotypic teaching strategies that did not explore socioeconomic issues, bias and empathy. Interviewees also suggested the need for a unified conceptual teaching framework to address the current variability and quality of preparational health programs (Betancourt et al., 2005).

Despite the need, there are various challenges associated with teaching cultural competence to public health workers. The learners' attitude and the context, content and timing of the curriculum can act as a hinderance to practice adoption (Boutin-Foster, Foster & Konopasek, 2008). Changing attitudes and raising awareness may be complicated through some students' resistance to the discussion of social inequities and health disparities or feeling responsible for existing social issues (Boutin-Foster et al., 2008). Research suggests that when discussing cultural competence, students must also

be taught the concept of cultural humility. Cultural humility is defined as a process of ongoing self-reflection and critique of one's own behaviors (Boutin-Foster et al., 2008). Boutin-Foster (2008) also emphasizes the need for understanding and accepting the biases of biomedical fields, in an effort to enable cross cultural dialogue and solutions. Another key component in cultural competence education implementation and development, is allowing the exploration of the student's own cultural values. Self-reflection is a recurring theme of the numerous approaches discussed in literature (Boutin-Foster, 2008).

Because the health care field encompasses a wide variety of professional disciplines such as health education, social work, nursing, and physicians, a universal practicum is unlikely. However, many components of individual teaching frameworks incorporate interdisciplinary principles. The Society of General Internal Medicine Health Disparities Task Force employed a review and consensus process to develop evidence based guidelines and recommendations for health disparities curricula. Although designed for medical practitioners, the content can be applied to various health professions (Smith et al., 2007). Smith et al. (2007) offered three learning objectives of racial and ethnic health disparities curricula: 1) examine and understand attitudes (i.e., bias, mistrust, stereotyping) which practitioners and patients may bring to clinical encounters; 2) gain knowledge of the existence and severity of health disparities, including causes and solutions to elimination; and 3) acquire the effective communicate skills and improve communication through negotiation across cultures, languages, and literacy levels. The goal of the curriculum is for the learner to adopt a commitment to

eliminating inequities in health care quality by understanding and assuming their professional role (Smith et al., 2007).

The Association of Schools of Public Health (ASPH) noted that graduate health disparities curriculum should include the following core competencies (ASPH, 2010):

1. Describe the roles of history, power, privilege, and structural inequality in producing health disparities.
2. Explain how professional ethics and practices relate to equity and accountability in diverse community settings.
3. Explain why cultural competence alone cannot address health disparities.
4. Discuss the importance and characteristics of a sustainable, diverse public health workforce.
5. Use the basic concepts and skills involved in culturally appropriate community engagement and empowerment with diverse communities.
6. Apply the principles of community-based participatory research (CBPR) to improve health in diverse populations.
7. Differentiate among availability, acceptability, and accessibility of health care across diverse populations.
8. Differentiate among linguistic competence, cultural competency, and health literacy in public health practice.
9. Cite examples of situations where consideration of culture-specific needs resulted in a more effective modification or adaptation of a health intervention.
10. Develop public health programs and strategies that respond to the diverse cultural values and traditions of the communities being served.

2.2 Professional and Para-Professional Training

Continuing education is a popular avenue to keep working professionals abreast of current trends in health services. Continuing education refers to any type of

postsecondary education, used either to obtain additional certifications or as credits required to maintain a license. It is aimed at adults who already possess a college or university degree (Bocco, 2010). Continuing education can take the form of workshops, seminars, home-study or online courses, conferences, or hands-on training. There is no specific format or length for continuing education programs, which vary in completion time (Bocco, 2010). In the case of continuing education for personal advancement only, participants usually don't receive college credits, as the courses are not considered part of the standard educational system (Bocco, 2010). Due to the highly competitive job market, professionals who are not required to complete continuing education often decide to undertake it anyway as a means of improving their resume and their chances for advancement (Bocco, 2010).

Specifically, certificate programs provide continuing education credit opportunities for many careers, and participants decide to pursue graduate certificates for both professional and academic reasons. The curriculum consists of short, focused programs of study designed to give practitioners advanced skills in a particular subject or area of specialization (Education-Portal, 2010). Many accredited colleges and universities offer graduate certificate programs (generally consisting of one year in length) that include 3-12 courses and range from 9-21 credits of advanced coursework. Often credits earned can be applied to a more advanced degree in a related field (Education-Portal.com, 2010).

The concept of cultural competency focused continuing education for the public health workforce is stressed within the *National Standards on Culturally and*

Linguistically Appropriate Services (CLAS). The activities and principles are designed to be integrated not only throughout health care organizations and across professional disciplines, but implemented as a partnership with the served communities (Office of Minority Health, 2007). There are organized themes comprised from 14 standards: Culturally Competent Care (Standards 1-3), Language Access Services (Standards 4-7), and Organizational Supports for Cultural Competence (Standards 8-14). The three types of standards are: 1) CLAS mandates; current Federal requirements for all recipients of Federal funds (Standards 4-7). 2) CLAS guidelines; activities recommended by OMH for adoption as mandates by Federal, State, and national accrediting agencies (Standards 1- 3, 8-13). 3) CLAS recommendations; suggested by OMH for voluntary adoption by health care organizations (Standard 14). The individual standards are shown below (Office of Minority Health, 2007).

> Standard 1: Health care organizations should ensure that patients/consumers receive from all staff member's effective, understandable, and respectful care that is provided in a manner compatible with their cultural health beliefs and practices and preferred language.
>
> Standard 2: Health care organizations should implement strategies to recruit, retain, and promote at all levels of the organization a diverse staff and leadership that are representative of the demographic characteristics of the service area.
>
> Standard 3: Health care organizations should ensure that staff at all levels and across all disciplines receive ongoing education and training in culturally and linguistically appropriate service delivery.
>
> Standard 4: Health care organizations must offer and provide language assistance services, including bilingual staff and interpreter services, at no cost to each patient/consumer with limited English proficiency at all points of contact, in a timely manner during all hours of operation.

Standard 5: Health care organizations must provide to patients/consumers in their preferred language both verbal offers and written notices informing them of their right to receive language assistance services.

Standard 6: Health care organizations must assure the competence of language assistance provided to limited English proficient patients/consumers by interpreters and bilingual staff. Family and friends should not be used to provide interpretation services (except on request by the patient/consumer).

Standard 7: Health care organizations must make available easily understood patient-related materials and post signage in the languages of the commonly encountered groups and/or groups represented in the service area.

Standard 8: Health care organizations should develop, implement, and promote a written strategic plan that outlines clear goals, policies, operational plans, and management accountability/oversight mechanisms to provide culturally and linguistically appropriate services.

Standard 9: Health care organizations should conduct initial and ongoing organizational self-assessments of CLAS-related activities and are encouraged to integrate cultural and linguistic competence-related measures into their internal audits, performance improvement programs, patient satisfaction assessments, and outcomes-based evaluations.

Standard 10: Health care organizations should ensure that data on the individual patient's/consumer's race, ethnicity, and spoken and written language are collected in health records, integrated into the organization's management information systems, and periodically updated.

Standard 11: Health care organizations should maintain a current demographic, cultural, and epidemiological profile of the community as well as a needs assessment to accurately plan for and implement services that respond to the cultural and linguistic characteristics of the service area.

Standard 12: Health care organizations should develop participatory, collaborative partnerships with communities and utilize a variety of formal and informal mechanisms to facilitate community and patient/consumer involvement in designing and implementing CLAS-related activities.

Standard 13: Health care organizations should ensure that conflict and grievance resolution processes are culturally and linguistically sensitive and capable of identifying, preventing, and resolving cross-cultural conflicts or complaints by patients/consumers.

> Standard 14: Health care organizations are encouraged to regularly make available to the public information about their progress and successful innovations in implementing the CLAS standards and to provide public notice in their communities about the availability of this information.

The purpose of this research is to collect demographic data, utilizing an explorational case study of individuals employed within an urban public health department. In order to effectively evaluate these constructs, a quantitative research approach was employed. Frequency data was collected on variables such as race, age, level of education, and diversity training participation.

2.3 Methods

2.3.1 Sample

Within the dissertation program design, participants were identified using convenience sampling. Employees (n= 90) from four metropolitan clinical sites of an urban public health department located in the southwest region of the United States were solicited and recruited during a monthly staff meeting. This sample is representative of 84% of the total employees which is comprised of 107 individuals (see Table 1). Participants met criteria for inclusion in the study if they: 1) work in a clinical setting and 2) provide services to individuals of racial and ethnic minority backgrounds. Participants included health education specialists, nurses, physicians, social workers and other general staff.

Table 1. ***Demographics of total employees from potential sample pool***

Clinic	*Number of Staff*	*Racial Description of Majority Clients Served (i.e, Hispanic, Black, etc.)*
1	Administrators: 2 Clerical: 6 Social Workers: 0 Nurses: 10 Physicians: 2 Health Educators: 0 Other: 5 cma/ca, 1 CRS	Hispanic
2	Administrators: 2 Clerical: 6 Social Workers: 0 Nurses: 11 Physicians: 2 Nurse Practitioner: 1 Health Educators: 0 Other: Community Relation Specialist 1; Eligibility Clerk 1	African American and Hispanic
3	Administrators: 2 Clerical: 4 Social Workers: 0 Nurses: 5 Physicians: 1 Health Educators: 0 Other: MSC Personnel 7; Programming Team 4	African American and Hispanic
4	Administrators: 4 Clerical: 6 Social Workers/Counselors: 0 Nursing Staff: 4 Physicians: 11 Health Educators: 2 Other: Community Nurses 0 Community Specialist 2 Community Liaison 0 Navigators 0 Dental Assistance 3 Dentist 2	African American and Hispanic

2.3.2 Measurement

O'Connor (2011) defines conceptualization as a process of redefining a concept or construct, in an effort to define it theoretically or conceptually. Researchers identify keywords from their hypothesis or research questions, and then develop a concise and consistent definition, well-accepted in the scientific community (O'Connor, 2011). The term operationalization differs in that a conceptual definition is obtained and made more precise by linking it to one or more operational definitions. The operational definition is created to define specific procedures and steps to measure a concept (O'Connor, 2011). Within the dissertation design, the researcher observed numerous concepts for measurement. All concepts will be measured using an ordinal scale. Ordinal measurement utilizes ranked levels, in which value can not be applied to the individual designations (Lund Research, 2010b). The analysis of demographic data was completed using means, frequencies, and percentages.

2.3.3 Assessment Tool

The Cultural Competence Assessment (CCA) is designed to explore individual knowledge, feelings and actions of respondents when interacting with others in health service environments (Schim, 2009). The instrument is based on the cultural competence model, and measures cultural awareness and sensitivity; cultural competence behaviors and cultural diversity experience and training on a 49 item scale (see Appendix A). It seeks to assess actual behaviors through a self report, rather than self-efficacy of performing behaviors (Doorenbos, Schim, Benkert & Borse, 2005).

Cultural awareness and sensitivity is analyzed with the Cultural Awareness and Sensitivity (CAS) subscale which measures with a 5-point likert-like response. Within this dissertation design, the CAS scale was divided in two sections, *knowledge* and *culturally sensitive attitudes*. An assessment of cultural competence behaviors is measured by the Cultural Competence Behaviors (CCB) subscale, with response categories of always, often, at time, never, and not sure (Doorenbos et al., 2005). A single-item index is used for cultural diversity experience with respondents being asked about the amount of various encounters with minority groups within the past year. Subscale scores are provided by adding the CAS and CCB totals (Doorenbos et al., 2005). Higher scores indicate more positive attitudes, a higher level of knowledge and increased engagement of competence behaviors. In addition, CCA assesses self identified ethical/racial group, age and education (Doorenbos et al., 2005).

A convenience sample of 405 healthcare providers were recruited from hospitals, home health agencies and community health agencies, to research CCA reliability and validity among the population. Content and face validity for the instrument was established and the internal consistency was documented at .92. Cronbach's alphas for CAS and CCB subscales were reported at .75 and .93, respectively (Doorenbos et al., 2005). The psychometric analysis of CCA suggests it is an effective tool to measure cultural competence. It is useful to evaluate healthcare professionals' specific cultural competence training needs which may decrease health disparities (Doorenbos et al., 2005).

Paez et al. (2007) utilized the Cultural Competence Behaviors (CCB) subscale tool to determine if there is an association between cultural competence of primary care providers and the clinics in which they are employed. Forty-nine providers, from twenty-three clinics responded to the online survey, across two states. The researchers suggested providers with who possess attitudes which reflect increased cultural learning motivation, are more likely to work in clinics which offer diversity training and cultural competent patient education materials (Paez et al., 2007).

Starr and Wallace (2009) examined cultural competence of thirty-one public health nurses with CCA. In addition, participants documented personal experiences and perceptions of culturally competent healthcare through qualitative data collection. The findings concluded participation in specific types of training was highly correlated to cultural competence knowledge and attitudes. Many reported increased levels of cultural competency knowledge and beliefs; however they disclosed the need for diversity education opportunities, to enable favorable clinical application (Starr & Wallace, 2009).

2.4 Results

Of the sixty-two clinical respondents, 47% were African American, 44% Hispanic/Latino and 5% Caucasian. This was comparable to the non-clinical subgroup with 43% being comprised of African Americans, 50% Hispanic/Latino and 7% of the total population being identifying themselves as Caucasian (see Table 2). In addition, respondents reported high levels of interaction with patients from ethnic and racial minorities (see Table 3). Almost the entire sample pool interacted with patients from Hispanic/Latino heritage. Eighty-six percent of respondents encountered Black/African

American individuals within their position of employment. Over half of the employees examined served White/Caucasian and Asian community members. In addition, forty-one percent of those surveyed noted Arab Americans/Middle Easterners as their usual clientele. Respondents were asked about their knowledge of CLAS adherence and over two-thirds of both subgroups were not sure if their clinic of employment implemented some of the recommended standards (see Table 2). Observing the clinical and non-clinical respondents, approximately 47% and 57% respectively, stated their cultural diversity training was an employer sponsored program. Continuing education offered training was reported among clinical workers at roughly 24% and 35% for non-clinical staff (see Table 4). When assessing respondents with diversity training preparational behaviors, clinical workers sought out information on cultural needs when identifying new individuals in the work environment more often than their non-clinical counterparts. Clinical respondents also had a better understanding of the variance in the definition of "health care" by patients from racial and ethnic minority backgrounds (see Table 5).

Table 2. ***Demographic characteristics of sample***

	Clinical Staff (n = 62)	**Non-clinical Staff (n = 28)**
Age (in years), mean *[SD]*	51 [10.8]	46 [9.3]
Highest education level (%)		
Less than high school	2	
Diploma	15	22
High school or GED	27	48
Associate degree	21	15
Bachelors degree	13	7
Graduate or professional degree	21	7
Racial/ethnic self-identification (%)		
Black/African American/Negro	47	43
Hispanic/Latino	44	50
White/Caucasian/European American	5	7
Asian	2	
Other	2	
Knowledge of CLAS standards (%)		
Yes	28	15
No	2	8
Not Sure	70	77
Position within agency (%)		
LPN	14	
RN	24	
Clerical Worker		96
Dental Practitioners	18	
Physician	3	
Certified Medical Assistant	20	
Other	22	4

Table 3. ***Racial composition of racial/ethnic patients encountered within the past 12 months***

Patients' Racial Composition	Percentage of Respondents with Interaction
Hispanic/Latino (including Mexican, Mexican American, Chicano, Puerto Rican, Cuban, other Spanish)	99
White/Caucasian/European American	55
Black/African American/Negro	86
American Indian/Alaska Native	15
Asian (Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese, or other Asian)	52
Native Hawaiian/pacific Islander	10
Arab American/Middle Eastern	41

Table 4. ***Diversity training engagement of respondents***

Type of Diversity Training	*Clinical*		*Non-Clinical*	
	N	**%**	**N**	**%**
Content Covered in a College Course	1	2.22		
Professional Conference or Seminar	4	8.89	2	8.70
Employer Sponsored Program	21	46.67	13	56.52
On-line (Computer Assisted) Education	5	11.11		
Continuing Education Offering	11	24.44	8	34.78
Other	3	6.67		

Table 5. ***Effects of diversity training on employee preparational activities by percentage***

	Aspects of cultural diversity need to be assessed for each individual, group, and organization.		***If I know about a person's culture, I don't need to assess their personal preferences for health services.***		***I understand that people from different cultures may define the concept of "healthcare" in different ways.***	
	Clinical	**Non**	**Clinical**	**Non**	**Clinical**	**Non**
Strongly Agree	12	13	4		27	26
Agree	54	17	10		61	44
Somewhat Agree	18	30	2	9	8	22
Neutral	6	26	12	9	4	
Somewhat Disagree	4		10	22		
Disagree	4	13	37	43		4
Strongly Disagree			25	17		
No Opinion	2					4
	I seek information on cultural needs when I identify new people in my work or school.		***I use resource books and other materials available to help me learn about people from different cultures***		***I use a variety of sources to learn more about the cultural heritage of other people.***	
	Clinical	**Non**	**Clinical**	**Non**	**Clinical**	**Non**
Always	8	5	6		10	
Very Often	20	9	14	4	17	14
Somewhat Often	8	14	4	9	13	9
Often	12	5	14	14	17	18
Sometimes	25	18	22	23	19	18
Few Times	4	5	14	4	8	9
Never	20	45	18	41	14	31
Not Sure	2		6	5	2	

2.5 Discussion

The health care field encompasses a wide variety of professional disciplines such as administrative, oral health practitioners, nursing, and physicians, making a universal

cultural competency practicum unlikely. However, as illustrated within the data collected, employer sponsored diversity training is a crucial strategy in addressing workforce deficiencies and building the capacity of employees. Culturally focused training opportunities for professionals are usually referred to as cultural diversity/competence training or cultural sensitivity training. Although the terms are often used interchangeably, there are notable differences. From a public health perspective cultural sensitivity involves being aware of cultural differences and similarities, and its effect on individuals' values, learning and behavior (Stafford, Bowman, Eking, Hanna & Lopoes-DeFede, 1997). Within public health the components of cultural sensitivity include: 1) willingness to adapt one's communication and behaviors to be compatible with another culture's norms and; 2) willingness to learn about the traditions and characteristics of other cultures (Stafford et al., 1997).

However, cultural diversity training typically incorporates a more holistic approach going beyond psycho-emotional factors or intent, into action. It has elements of cultural sensitivity, humility, relevance and self awareness. Scott (2012) noted these types of comprehensive training and education improves employee relations and enhances interpersonal skills in various areas. It assists workers improve their performance by fostering an environment free of bias and stereotypes. Diversity training implements techniques to foster the discovery of self initiated behaviors that could create a workplace which is conducive to improving the health outcomes of those being served.

Depending upon an individual's career discipline, such as clerical workers, there may not be a professional organization in their field to gain cultural competence

continuing education. In addition, those without post-secondary degrees may be less inclined to participate in certifications offered through collegiate institutions. This illustrates the importance of employer sponsored programs to reach these populations. Often times these trainings are conducted during working hours and in convenient locations, enabling employee participation.

The concept of cultural competency focused continuing education for the public health workforce is stressed within the *National Standards on Culturally and Linguistically Appropriate Services* (CLAS). Most health care organizations receiving federal dollars must adhere to the recommendations for accreditation purposes. Within both subgroups, clinical and non-clinical workers, over two-thirds of the respondents were not sure if their clinic implemented these strategies. CLAS is designed to be integrated throughout an organization and undertaken in partnership with the communities being served. All employees, no matter their role within the organization, hold some degree of responsibility when addressing these standards. It must be incorporated within the daily operational plans. Administrators and executives are obligated in keeping their employees abreast of this information to assist in a collective effort, to ensure maximum effectiveness. This coupled with cultural diversity training may foster an environment conducive to eliminating health disparities.

3. CONTINUING EDUCATION EFFECTS ON CULTURAL COMPETENCE KNOWLEDGE AND SKILLS BUILDING

3.1 Introduction

Racial and ethnic health disparity data from a national perspective indicates there is much to learn in the public health workforce about the ongoing health disparity crisis in our state and nation. This suggests a level of urgency for need to assist our public health professionals in obtaining specific skills sets that will assist them in working better with ethnic and racial minority populations. These skills encompass culturally competent care and entails understanding the social and cultural factors which influence individual health beliefs and behaviors (Harvard Catalyst, 2010). Heightened levels of cultural competence by public health workers, enables the elimination of health disparities. This concept is well accepted and incorporated into many initiatives of federal organizations, such as the National Institutes of Health and the Agency for Healthcare Research and Quality (Betancourt et al., 2005).

The concept of cultural competency focused continuing education for the public health workforce is stressed within the National Standards on Culturally and Linguistically Appropriate Services (CLAS). The activities and principles are designed to be integrated not only throughout health care organizations and across professional disciplines, but implemented as a partnership with the served communities (Office of Minority Health, 2007). There are organized themes comprised from 14 standards: Culturally Competent Care (Standards 1-3), Language Access Services (Standards 4-7),

and Organizational Supports for Cultural Competence (Standards 8-14). The three types of standards are: 1) CLAS mandates; current Federal requirements for all recipients of Federal funds (Standards 4-7). 2) CLAS guidelines; activities recommended by OMH for adoption as mandates by Federal, State, and national accrediting agencies (Standards 1- 3, 8-13). 3) CLAS recommendations; suggested by OMH for voluntary adoption by health care organizations (Standard 14) (Office of Minority Health, 2007).

Van Ryn and Fu (2003) stated public health providers may influence race/ethnicity and socioeconomic health disparities in numerous areas. Providers may reflect and/or reinforce societal notions regarding patients' own value, self-reliance, knowledge, and deservingness of effective care. In addition, providers have the ability to communicate lower expectations for patients in disadvantaged social and economic positions (Van Ryn & Fu, 2003). This is an example of the public health workforce's influence on individual's expectations for the degree to which they expect to obtain the resources and services they need, and their expectations for improvements in their conditions and situations. Also noted is patients' health related cognition and behavior being highly correlated to provider communication (Van Ryn & Fu, 2003). In addition, health care professionals act as gatekeepers, differential access to services and treatments, as well as benefits, are well documented. All these factors, whether intentional or unintentional, may account for some of the disparities observed in health outcomes (Van Ryn & Fu, 2003).

Jones, Cason and Bond (2004) conducted a cultural competence skills and knowledge assessment with 409 health care workers. The findings suggested cultural

educational preparation and knowledge subsequently influences their skills in interacting with ethnic and racial minority patients (Jones et al., 2004). It was also reported health care workers with the most confidence in their cultural relational working skills, had high levels of confidence in their knowledge of cultural concepts. Researchers noted the gaps presented in workers' cultural diversity knowledge must be proactively addressed to potentially improve patient health outcomes (Jones et al., 2004).

Shaya and Gbarayor (2006) reviewed results provided from a pre- and post-analysis of training needs from 22 health professionals working across 5 health services organizations located in ethnic and racially diverse areas of the country. The primary purpose was to assess their knowledge about caring for multiethnic patient groups (Shaya & Gbarayor, 2006). Another aim was to assess their perceptions of training needs in their respective discipline. Sixty-five percent of participants stated no attention was given in their collegiate education to the health care needs of minority groups. Most participants engaged in self-initiated learning to improve their knowledge and understanding (Shaya & Gbarayor, 2006).

Kai et al. (2007) conducted a study with the enrollment of 106 doctors, nurses, and other health-related professionals from different ethnically diverse serving health-service settings. Researchers organized 18 focus groups to allow health professionals an opportunity to describe their experiences of caring for people from minority backgrounds. Participants recalled actual cases to identify problems and strengths observed in their patient interactions. Findings suggested health professionals tackle many challenges when providing health care for these populations as it relates to general

communication (Kai et al., 2007). Many disclosed uncertainty in their ability to avoid portraying cultural insensitivity. As a result, health professionals became disempowered, which is highly correlated to the quality of the services they deliver. Kai et al. (2007) suggested attention should be focused on skills building training to increase health professionals' self efficacy in communicating with patients of diverse backgrounds, to enable disease prevention and treatment.

Continuing education in cultural competence is an essential strategy for improving public health employees' effectiveness in working with diverse clients and reducing racial and ethnic health disparities. Beach et al. (2005) conducted an extensive literature review to identify studies which evaluated interventions designed to improve cultural competence of health professionals. It is reported most studies illustrated beneficial effects on participant knowledge. The areas of intervention were broad including culture-specific knowledge (e.g., cultural traditions, norms) and adverse health outcomes as a result of provider bias (Beach et al., 2005).

In addition, Beach et al. (2005) noted evidence suggests skills building training among health care professionals improves their interactions with patients. In one study, participants were given various hour sessions to practice communication skills with community members. As a result, participants were more competent in interviewing a non-English-speaking person (Beach et al., 2005). Other observed behaviors included an increase in nurses' involvement in community-based chronic disease education programs, learners reported increased social interactions with peers of different

races/ethnicity, and an improvement in their ability to conduct a behavioral analysis and treatment plan (Beach et al., 2005).

Webb and Sergison (2003) evaluated the effectiveness and acceptability of antiracism and cultural competence training among health care professionals providing services to children. The curriculum was designed to give learners the opportunity to gain an understanding of how racism and personal views hinder the delivery of services. This was conducted through small multidisciplinary group discussion, with strict ground rules, facilitated by antidiscrimination professionals (Webb & Sergison, 2003). A retrospective evaluation was conducted with trainees to identify their views between two and seven years upon course completion. Seventy-five percent gave positive reviews to one or more of the questions related to behavioral change and; practice and communication modification (Webb & Sergison, 2003).

Smith et al. (2007) noted the Society of General Internal Medicine Health Disparities Task Force used a review process for the development of recommendations and guidelines of health disparities curricula for staff employed in clinical settings. The taskforce provides learning objectives, curriculum content, teaching methods and implementation resources (Smith et al., 2007). Recommendations suggest curricula address three areas of racial and ethnic health disparities and focus on the following specific learning objectives. These include examining and understanding patients' attitudes, such as mistrust, subconscious bias, and stereotyping, which can determine clinical encounters. Also, trainees should gain knowledge focused on the existence and magnitude of health disparities, including the causes and subsequent solutions of health

disparities, in an effort to diminish or eliminate them (Smith et al., 2007). The final objective encompasses skills building to effectively communicate and negotiate across the diverse cultural, linguistic and educational levels of patients. The overall goal of the curriculum is to assist learners in developing a personal commitment to eliminating inequities in health care quality (Smith et al., 2007).

Kagawa-Singer and Kassim-Lakha (2003) suggested culturally competent practice in health care settings, requires organizational commitment and the development of infrastructure to promote and support employee diversity, and responsiveness to cross-cultural issues. Specifically, interventions must include exploring ways to achieve multidimensionality in training programs. The researchers identified Donabedian's model as a useful framework to assess proposed institutional changes to promote and support culturally competent practice (Kagawa-Singer & Kassim-Lakha, 2003). The model examines outcomes from clinical/administrative standards, through environmental characteristics and resourcefulness. It seeks to identify strategies to improve health care services and patients' satisfaction. Some areas of inquiry include the adoption of multifaceted, strategic culturally competent care by senior management and organizational boards; the managerial support and accountability for the implementation of employee training programs; and the strategic integration of cultural competency principles and values into ongoing service delivery (Kagawa-Singer and Kassim-Lakha, 2003).

The purpose of this research is to assess cultural competence knowledge and programmatic skill sets, utilizing an explorational case study, of individuals employed

within an urban public health department. In order to effectively evaluate these constructs, a quantitative research approach was employed to examine participants' knowledge and competencies of the subject matter. This data was further analyzed to determine if continuing education participation and training was correlated to the levels culturally competent practice engagement and self reported confidence. In addition, researchers obtained data on the availability of employer sponsored training opportunities.

3.2 Methods

3.2.1 Sample

Within the dissertation program design, participants were identified using convenience sampling. Employees (n=90) from four metropolitan clinical sites of an urban public health department located in the southwest region of the United States were solicited and recruited during a monthly staff meeting. This sample is representative of 84% of the total employees which is comprised of 107 individuals (see Table 1). Participants met criteria for inclusion in the study if they: 1) work in a clinical setting and 2) provide services to individuals of racial and ethnic minority backgrounds. Participants included nurses, physicians, and oral health practitioners, as well as general medical and clerical staff.

3.2.2 Measurement

Within the dissertation design, the researcher observed numerous concepts for measurement. All concepts will be measured using an ordinal scale. Ordinal measurement utilizes ranked levels, in which value can not be applied to the individual

designations (Lund Research, 2010b). Descriptive statistics characterized healthcare professionals' cultural competence and personal demographic measures. Prior to analysis, negative items on the attitude measure were reverse coded so a higher score indicated a more favorable attitude. One-way analysis variance (ANOVA) was used to compare knowledge, behavior and culturally sensitive attitudes (CSA) across race, and educational level. In order to evaluate equality between knowledge, behavior and CSA scores across diversity training participation, a T-Test was employed. Associations between knowledge, behavior and CSA scores; and race, diversity training and educational levels were determined by Fisher's Exact Test.

3.2.3 Theory

The derivative of the dissertation design can be attributed to the Theory of Planned Behavior (TPB) developed by Martin Fishbein and Icek Ajzen, which evaluates the correlation between behavior and beliefs, attitudes and intention, of an individual, as well as their level of perceived control (National Cancer Institute, 2005). There are four concepts incorporated within this the TPB framework. These include behavioral intent, attitude, subjective norm and perceived behavioral control. TPB suggests that deliberate individual behavior is driven by behavioral intentions and is a function of an individual's attitude toward the behavior, the subjective norms surrounding the performance of the behavior, and the person's perception of the feasibility in which the behavior can be performed (behavioral control) (Furneaux, 2005).

Within the theory, attitude toward the behavior is described as the individual's positive or negative feelings about performing a behavior. It is determined through an

assessment of one's beliefs regarding the consequences arising from a behavior and an evaluation of the desirability of these consequences (Furneaux, 2005). Subjective norm is an individual's perception of whether key people believe the behavior should be performed. Behavioral control is defined as one's perception of the difficulty in performing a behavior. TPB suggests control that people have over their behavior as being continual. However, the behaviors are easily adopted only if effort and resources merge (Furneaux, 2005). The TPB takes into account that all behavior is not under volitional control and that behaviors are located at some point along a continuum that extends from total control to a complete lack of control. Control factors include both internal factors and external factors (Ajzen, 1988).

The goal of TPB is to not only predict but also explain human behavior. The theory suggests behavior is a function of salient beliefs relevant to specific behaviors. These beliefs are considered the determinants of an individual's intentions and actions (Ajzen, 1991). These salient beliefs include: behavioral beliefs, normative beliefs and control beliefs. Behavioral beliefs influence attitudes toward the behavior. Normative beliefs are the underlying components of subjective norms; and control beliefs provide the foundation for perception of behavioral control (Ajzen, 1991).

The Theory of Planned Behavior is an extension of the Theory of Reasoned Action (TRA), which was formulated by Martin Fishbein. TRA resulted from research from the Expectancy Value Models, after attempting to estimate the discrepancy between attitude and voluntary behavior (Ajzen, 1991). Theory of Reasoned Action suggests the determinant of behavior is an individual's intention to perform the behavior.

Intention is a functionality derived from attitude toward the behavior and subjective norm. Intention is defined as the cognitive representation of a person's readiness to perform a given behavior, and it is antecedent of behavior (Ajzen, 1991). Upon further TRA analysis, behavior appeared not to be 100% voluntary and under control, this resulted in the addition of perceived behavioral control construct, and subsequent title of Theory of Planned Behavior (Ajzen, 1991).

The Theory of Planned Behavior (TPB) has been used in a wide variety of health education programming. Schifter and Ajzen (1985) utilized TPB to successfully predict weight reduction among women enrolled in college. The findings suggested that intentions to lose weight was dependent upon their attitudes, subjective norms and perceived control. Researchers noted weight lost increased with active planning and ego strength (Schifter & Ajzen, 1985).

Kassem, Lee, Modeste & Johnston (2003) further applied TPB to understand soft drink consumption among female adolescents. The study illustrated attitude, subjective norm and perceived behavioral control as having a positive association with intention. However, attitude was the strongest, with the most statistical significance (Kassem et al., 2003). Another use of the Theory of Planned Behavior in health education is its prediction of healthy eating behaviors among youth. Fila and Smith (2006) used the theory among Native American youth and determined healthy eating behavior was correlated with subjective norm, perceived behavioral control, attitude and barriers.

The small body of research explored in the above literature review illustrates the need for researchers to explore many variables when using TPB for theoretical guidance.

As it relates to the dissertation design, literature is limited in the study of TPB being applied to the public health workforce to understand and modify behavior (Perkins et al., 2007). Perkins et al. (2007) conducted a literature review and found different constructs of TPB predict intentions depending upon the target group, and for different guidelines and behaviors. It is believed the rationale provided by the small meta-analysis gives guidance for future research direction (Perkins et al., 2007). The hypothesis for the dissertation study can be designed to further the knowledge of TPB as a predictor for various actions. Predictions include:

1) If organizational culture promotes and values cultural competence and health disparities capacity building, then employees are more likely to participate in diversity training and continuing education.

2) If public health employees are provided with cultural competence and health disparities training, then they have a heightened sense of behavioral control in implementing effective clinical encounters.

3.2.4 Assessment Tool

The Cultural Competence Assessment (CCA) is designed to explore individual knowledge, feelings and actions of respondents when interacting with others in health service environments (Schim, 2009). The instrument is based on the cultural competence model, and measures cultural awareness and sensitivity; cultural competence behaviors and cultural diversity experience and training on a 49 item scale (see Appendix A). It seeks to assess actual behaviors through a self report, rather than self-efficacy of performing behaviors (Doorenbos, Schim, Benkert & Borse, 2005).

Cultural awareness and sensitivity is analyzed with the Cultural Awareness and Sensitivity (CAS) subscale which measures with a 5-point likert-like response. Within

this dissertation design, the CAS scale was divided in two sections, *knowledge* and *culturally sensitive attitudes*. An assessment of cultural competence behaviors is measured by the Cultural Competence Behaviors (CCB) subscale, with response categories of always, often, at time, never, and not sure (Doorenbos et al., 2005). A single-item index is used for cultural diversity experience with respondents being asked about the amount of various encounters with minority groups within the past year. Subscale scores are provided by adding the CAS and CCB totals (Doorenbos et al., 2005). Higher scores indicate more positive attitudes, a higher level of knowledge and increased engagement of competence behaviors. In addition, CCA assesses self identified ethical/racial group, age and education (Doorenbos et al., 2005).

A convenience sample of 405 healthcare providers were recruited from hospitals, home health agencies and community health agencies, to research CCA reliability and validity among the population. Content and face validity for the instrument was established and the internal consistency was documented at .92. Cronbach's alphas for CAS and CCB subscales were reported at .75 and .93, respectively (Doorenbos et al., 2005). The psychometric analysis of CCA suggests it is an effective tool to measure cultural competence. It is useful to evaluate healthcare professionals' specific cultural competence training needs which may decrease health disparities (Doorenbos et al., 2005).

Paez, Allen, Carson and Cooper (2007) utilized the Cultural Competence Behaviors (CCB) subscale tool to determine if there is an association between cultural competence of primary care providers and the clinics in which they are employed. Forty-

nine providers, from twenty-three clinics responded to the online survey, across two states. The researchers suggested providers with who possess attitudes which reflect increased cultural learning motivation, are more likely to work in clinics which offer diversity training and cultural competent patient education materials (Paez et al., 2007).

Starr and Wallace (2009) examined cultural competence of thirty-one public health nurses with CCA. In addition, participants documented personal experiences and perceptions of culturally competent healthcare through qualitative data collection. The findings concluded participation in specific types of training was highly correlated to cultural competence knowledge and attitudes. Many reported increased levels of cultural competency knowledge and beliefs; however they disclosed the need for diversity education opportunities, to enable favorable clinical application (Starr & Wallace, 2009).

3.3 Results

Knowledge scores were determined through the analysis of specific questions pertaining to the cultural competence survey tool (see Figure 2). Within the non-clinical group, using the Pearson Correlation Coefficients formula, a positive correlation was found between respondents' knowledge score and diversity training (see Table 6). In addition, non-clinical staff who participated in diversity training in the past had a significantly higher mean knowledge score than their counterparts who had not undergone training. This suggests if healthcare professionals engage in cultural competence education their level of awareness of unique characteristics between ethnic and racial minorities increase.

The cultural competent behavior (CCB) score is determined through the analysis of items of the survey tool (see Figure 3). Within the non-clinical subgroup, the data analysis confirmed a statistically significant positive association between knowledge score and average CCB score (see Table 7). This allowed researchers to conclude those who exhibit the healthiest behaviors as it relates to effectively working with diverse populations, had a heightened sense of knowledge related to race/ethnicity and healthcare services.

There were no significant differences found in mean scores of knowledge or behavior across race/ethnicity among clinical or non-clinical respondents. However, across all races and ethnicity categories, clinical respondents had higher average knowledge scores compared to their non-clinical peers (see Table 8). Analysis of engagement of culturally appropriate behavior activity determined non-clinical Hispanics/Latinos and Whites engaged in behaviors more conducive to healthier outcomes for patients, compared to their clinical counterparts (see Table 9).

Clinical diploma recipients had increased knowledge levels compared to their non-clinical counterparts. However, non-clinical individuals with a high school diploma were more knowledgeable than clinical peers (see Table 10). Non-clinical respondents with an Associates degree as their highest level of education had a higher mean knowledge score than their clinical peers. In addition, clinicians with graduate or professional degrees had a heightened level of knowledge compared to their non-clinical peers (see Table 10). The same analysis suggested non-clinical respondents within the diploma and high school, Associate and Bachelors degrees levels of education engaged

in more culturally appropriate behaviors than clinical counterparts workers (see Table 11).

Criteria Examined
Race is the most important factor in determining a person's culture.
People with a common cultural background think and act alike.
Many aspects of culture influence health and health care.
Aspects of cultural diversity need to be assessed for each individual, group, and organization.
If I know about a person's culture, I don't need to assess their personal preferences for health services.
Spiritually and religious beliefs are important aspects of many cultural groups.
Individual people may identify with more than one cultural group.
Language barriers are the only difficulties for recent immigrants to the United States.

Figure 2. ***Items examined for knowledge score***

Table 6. ***Cross-tabulation of diversity training and knowledge scores among non-clinical staff***

Diversity Training	**Knowledge Score Quartile**				
Frequency **Percent** **Row Pct** **Col Pct**	**1**	**2**	**3**	**4**	**Total**
Yes	7 25.93 30.43 77.78	6 22.22 26.09 75.00	2 7.41 8.70 100.00	8 29.63 34.78 100.00	23 85.19
No	2 7.41 50.00 22.22	2 7.41 50.00 25.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	4 14.81
Total	9 33.33	8 29.63	2 7.41	8 29.63	27 100.00
Fisher's Exact Test Table Probablity (P) = 0.0574 Pr <= P = 0.5733					

Criteria Examined
I include cultural assessments when I do individual or organizational evaluations.
I seek information on cultural needs when I identify new people in my work or school.
I have resource books and other materials available to help me learn about people from different cultures.
I use a variety of sources to learn about the cultural heritage of other people.
I ask people to tell me about their own explanations of health and illness.
I ask people to tell me about their expectations for health services.
I avoid using generalizations to stereotype groups of people.
I recognize potential barriers to service that might be encountered by different people.
I remove obstacles for people of different cultures when I identify barriers to services.
I remove obstacles for people of different cultures when people identify barriers to me.
I welcome feedback from clients about how I relate to people from different cultures.
I find ways to adapt my services to individual and group cultural preferences.
I document cultural assessments if I provide direct client services.
I document the adaptations I make with clients if I provide direct client services.

Figure 3. ***Items examined for cultural competency behavior (CCB) subscale***

Table 7. ***Cross-tabulation of knowledge scores and behavior scores among non-clinical staff***

Table of Knowledge Quartiles by Behavior Quartile					
Knowledge Score Quartile)	**Behavior Score Quartile**				
Frequency Percent Row Pct Col Pct	**1**	**2**	**3**	**4**	**Total**
1	4 14.29 40.00 100.00	2 7.14 20.00 28.57	2 7.14 20.00 40.00	2 7.14 20.00 16.67	10 35.71
2	0 0.00 0.00 0.00	2 7.14 25.00 28.57	1 3.57 12.50 20.00	5 17.86 62.50 41.67	8 28.57
3	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	2 7.14 100.00 16.67	2 7.14
4	0 0.00 0.00 0.00	3 10.71 37.50 42.86	2 7.14 25.00 40.00	3 10.71 37.50 25.00	8 28.57
Total	4 14.29	7 25.00	5 17.86	12 42.86	28 100.00
Fisher's Exact Test Table Probability (P) 4.055E-05 Pr <= P 0.2979					

Table 8. ***Knowledge score averages by race/ethnicity***

Race/Ethnicity	***Knowledge Score (mean)***	
	Clinical *(SD=0.90)*	**Non-clinical** *(SD=0.84)*
Hispanic/Latino (including Mexican, Mexican American, Chicano, Puerto Rican, Cuban, other Spanish)	3.585	3.438
White/Caucasian/European American	3.958	3.313
Black/African American/Negro	3.431	3.301
Asian (Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese, or other Asian)	3.125	n/a
Other	4.250	n/a

C ($F = (5,52) = 1.64$, $p > .05$) ; NC ($F = (3,25) = .08$, $p > .05$)

Table 9. ***Behavior score averages by race/ethnicity***

Race/Ethnicity	***Behavior Score (mean)***	
	Clinical **(***SD=1.36)*	**Non-clinical** *(SD=1.37)*
Hispanic/Latino (including Mexican, Mexican American, Chicano, Puerto Rican, Cuban, other Spanish)	3.578	4.299
White/Caucasian/European American	3.929	4.548
Black/African American/Negro	3.861	3.841
Asian (Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese, or other Asian)	2.214	n/a
Other	4.461	n/a

C ($F = (5,52) = 0.54$, $p > .05$) ; NC ($F = (3, 25) = 0.45$, $p > .05$)

Table 10. ***Knowledge score averages by education***

Highest Level of Education Completed	***Knowledge Score (mean)***	
	Clinical *(SD=0.90)*	**Non-clinical** *(SD=0.84)*
Less than high school	3.750	n/a
Diploma	3.765	2.892
High School or GED	3.241	3.567
Associate degree	3.761	3.937
Bachelors degree	3.732	3.750
Graduate or Professional degree	3.465	2.687

C ($F=(6,46) =0.58$, $p>.05$) ; NC ($F= (5, 22)=1.84$, $p>.05$)

Table 11. ***Behavior score averages by education***

Highest Level of Education Completed	***Behavior Score (mean)***	
	Clinical *(SD=1.36)*	**Non-clinical** *(SD=1.37)*
Less than high school	5.28	n/a
Diploma	4.160	4.351
High School or GED	3.697	4.040
Associate degree	3.900	4.827
Bachelors degree	3.657	4.964
Graduate or Professional degree	2.944	2.535

C ($F=(6,46) =1.20$, $p>.05$) ; NC ($F= (5, 22)=1.23$, $p>.05$)

3.4 Discussion

Life expectancy and overall health have improved in recent years for most Americans, thanks in part to an increased focus on preventive medicine and dynamic new advances in medical technology. However, not all Americans are benefiting equally. For too many racial and ethnic minorities in the United States, good health is

elusive, since appropriate care is often associated with an individual's economic status, race, and gender. Despite notable progress in the overall health of the nation, there are continuing disparities in the burden of illness and death experienced by Blacks or African Americans, Hispanics or Latinos, American Indians and Alaska Natives, and Native Hawaiian and other Pacific Islanders, compared to the U.S. population as a whole (OMHHD, 2010).

Racial and ethnic health disparity data from a national perspective indicates there is much to learn in the public health workforce about the ongoing health disparity crisis in our state and nation. This suggests a level of urgency for need to assist our public health professionals in obtaining specific skills sets that will assist them in working better with ethnic and racial minority populations. These skills encompass culturally competent care and entails understanding the social and cultural factors which influence individual health beliefs and behaviors (Harvard Catalyst, 2010).

Van Ryn and Fu (2003) stated public health providers may influence race/ethnicity and socioeconomic health disparities in numerous areas. Providers may reflect and/or reinforce societal notions regarding patients' own value, self-reliance, knowledge, and deservingness of effective care. In addition, providers have the ability to communicate lower expectations for patients in disadvantaged social and economic positions (Van Ryn & Fu, 2003). This is an example of the public health workforce's influence on individual's expectations for the degree to which they expect to obtain the resources and services they need, and their expectations for improvements in their conditions and situations.

Research conducted by Jones et al. (2004) suggested cultural educational preparation and knowledge subsequently influences healthcare professionals' skills in interacting with ethnic and racial minority patients. Employees with the most confidence in their cultural relational working skills had high levels of confidence in their knowledge of cultural concepts (Jones et. al, 2004). Continuing education in cultural competence is an essential strategy for improving public health employees' effectiveness in working with diverse clients and reducing racial and ethnic health disparities. Assessments concluded interventions designed to improve cultural competence of health professionals illustrated beneficial effects on participant knowledge and self efficacy.

The results of this research highlight the need to increase the capacity of health care professionals in working with diverse populations. Respondents with past diversity training displayed a higher level of culturally competent knowledge when interacting with clients and patients. In turn, their knowledge and awareness led to them engaging in behaviors conducive to improving racial/ethnic health outcomes. Training programs must incorporate educational components which foster skill building to enable subsequent culturally appropriate clinical interactions. In addition, non-clinical diploma recipients displayed a higher level of culturally competent behavior engagement than their clinical peers. This suggests research can be employed to determine if there are positive effects of using this population as gatekeepers for the improvement of patient-provider interaction.

4. ASSOCIATION ANALYSIS OF HEALTH PROFESSIONALS REPORTED ATTITUDES AND CULTURALLY COMPETENT BEHAVIOR

4.1 Introduction

Racial and ethnic health disparity data from a national perspective indicates there is much to learn in the public health workforce about the ongoing health disparity crisis in our state and nation. This suggests a level of urgency for need to assist our public health professionals in obtaining specific skills sets that will assist them in working better with ethnic and racial minority populations. These skills encompass culturally competent care and entails understanding the social and cultural factors which influence individual health beliefs and behaviors (Harvard Catalyst, 2010). Heightened levels of cultural competence by public health workers, enables the elimination of health disparities. This concept is well accepted and incorporated into many initiatives of federal organizations, such as the National Institutes of Health and the Agency for Healthcare Research and Quality (Betancourt et al., 2005).

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influence on individual's expectations for the degree to which they expect to obtain the resources and services they need, and their expectations for improvements in their conditions and situations. Also noted is patients' health related cognition and behavior being highly correlated to provider communication (Van Ryn & Fu, 2003). In addition, health care professionals act as gatekeepers, differential access to services and treatments, as well as benefits, are well documented. All these factors, whether intentional or unintentional, may account for some of the disparities observed in health outcomes (Van Ryn & Fu, 2003).

Humans are likely to unconsciously apply stereotypes when interpreting individuals, health care workers are no exception. Extensive evidence documents humans as mentally categorizing individuals in a particular class or group. As a result, the characteristics assigned to the particular group are unconsciously and automatically applied to the individual (Burgess, Fu & Van Ryn, 2004). To allow researchers to assess automatic stereotypes associated with race/ethnicity, providers' perceptions were studied. It was noted on average, African American patients were perceived as less educated and less likely to have demanding careers as their white counterparts, regardless of actual occupation and/or educational level. Even when information about patients' education or occupation was in their medical record, they were perceived stereotypically by providers (Burgess, Fu & Van Ryn, 2004).

Novack et al. (1997) suggested healthcare providers' values, attitudes, biases and past experiences has a direct impact on communication with patients. Negative clinician attitudes may be a barrier to healthcare by some ethnic/racial minority groups. It was

reported 31% of Latino mothers of asthmatic children in a pediatric clinic stated health professionals' attitudes are a major barrier to the management of their child's condition (Flores, 2000). Research findings also suggested among this population, 11% postponed medical visits for their children because they felt staff did no understand their culture (Flores, 2000).

Van Ryn and Burke (2000) researched quality of care by analyzing the affect of patient race and socioeconomic status (SES) on physicians' perceptions and beliefs. The sample included a total of 842 patient encounters, among approximately 193 physicians. It was determined physicians viewed African Americans, as well as individuals of low and middle SES more negatively compared to whites and those of upper SES (Van Ryn & Burke, 2000). Findings also suggested patient race influenced the physicians' assessment of their level of intelligence, and their likelihood of having risky behaviors and medical recommendation adherence. In addition, physicians' perceptions of patients' behavioral activities, personality and abilities was associated with patient SES.

Paez, Allen, Carson and Cooper (2007) noted providers who possess an understanding of the outcomes of cultural diversity in customs and values; and oppressive acts within healthcare, are more confident in caring for underserved patients. Researchers suggested a possible reason for this is health professionals' level of comfortability in providing services to patients of diverse ethnic/racial minority backgrounds, have an open-mind to cultural competence (Paez et al., 2007). In order to establish this competency in clinical care settings, it requires practitioners continuously

self-critique and reflect, while seeking to understand the experience from the patients' perspective (Paez et al., 2007).

Beach et al. (2005) conducted an extensive literature review to identify studies which evaluated interventions designed to improve cultural competence of health professionals related to attitudes and beliefs. Twenty-five studies evaluated training effects on provider attitudes with 21 demonstrating beneficial outcomes. Researchers noted the most prevalent outcome was cultural self-efficacy, which evaluates the learner's confidence in knowledge and skills in working with ethnic and racial minority patients (Beach et al., 2005). In addition, attitude was measured as it relates to community health issues and interest in educating oneself on patient backgrounds. It was determined there was substantial evidence to suggest cultural competence training has a direct impact on the attitudes of public health workers (Beach et al., 2005).

Cooper, Beach, Johnson, and Inui (2006) characterized the clinician-self relationship as the degree of awareness the individual possesses in regards to their background, values, attitudes and its impact on their behaviors and interactions with patients. Researchers evaluated a study designed to allow physicians the identification of previously unrecognized, negative attitudes which interfered with patient-centered interviewing skills (Cooper et al., 2006). The findings suggested increasing self-awareness improved these skills of trainees. The approach utilized in this intervention encompassed the utilization of educational exercises and strategies to promote self-reflection of clinicians. This results in an increase awareness of their experiences, beliefs, values and behaviors, including subconscious bias. The overall goal of programs

designed in this nature is to improve patient-clinician interactions across cultural diversity (Cooper et al., 2006).

Novack et al. (1997) proposed a curriculum focused on awareness, with four core areas. These topics for reflection and discussion include: physician self-care, physicians' emotional responses in patient care, physicians' beliefs and attitudes; and challenging clinical situations (Novack et al., 1997). The findings suggested organized activities with support groups and meaningful discussion of clinical experiences, promote practitioner awareness. This can improve the clinical care they provide and increase occupational satisfaction (Novack et al., 1997).

The purpose of this research is to assess the association of attitudes and beliefs on engaging in culturally competent behavior, utilizing an explorational case study, of individuals employed within an urban public health department. In order to effectively evaluate these constructs, a quantitative research approach was employed. The data was further analyzed to determine if public health workers' attitudes predicted their level of culturally competent practice engagement and past participation in diversity training.

4.2 Methods

4.2.1 Sample

Within the dissertation program design, participants were identified using convenience sampling. Employees (n=90) from four metropolitan clinical sites of an urban public health department located in the southwest region of the United States were solicited and recruited during a monthly staff meeting. This sample is representative of 84% of the total employees which is comprised of 107 individuals (see Table 1).

Participants met criteria for inclusion in the study if they: 1) work in a clinical setting and 2) provide services to individuals of racial and ethnic minority backgrounds. Participants included nurses, physicians, and oral health practitioners, as well as general medical and clerical staff.

4.2.2 Measurement

Within the dissertation design, the researcher observed numerous concepts for measurement. All concepts will be measured using an ordinal scale. Ordinal measurement utilizes ranked levels, in which value can not be applied to the individual designations (Lund Research, 2010b). Descriptive statistics characterized healthcare professionals' cultural competence and personal demographic measures. Prior to analysis, negative items on the attitude measure were reverse coded so a higher score indicated a more favorable attitude. One-way analysis variance (ANOVA) was used to compare knowledge, behavior and culturally sensitive attitudes (CSA) across race, and educational level. In order to evaluate equality between knowledge, behavior and CSA scores across diversity training participation, a T-Test was employed. Associations between knowledge, behavior and CSA scores; and race, diversity training and educational levels were determined by Fisher's Exact Test.

4.2.3 Theory

The derivative of the dissertation design can be attributed to the Theory of Planned Behavior (TPB) developed by Martin Fishbein and Icek Ajzen, which evaluates the correlation between behavior and beliefs, attitudes and intention, of an individual, as well as their level of perceived control (National Cancer Institute, 2005).

There are four concepts incorporated within this the TPB framework. These include behavioral intent, attitude, subjective norm and perceived behavioral control. TPB suggests that deliberate individual behavior is driven by behavioral intentions and is a function of an individual's attitude toward the behavior, the subjective norms surrounding the performance of the behavior, and the person's perception of the feasibility in which the behavior can be performed (behavioral control) (Furneaux, 2005).

Within the theory, attitude toward the behavior is described as the individual's positive or negative feelings about performing a behavior. It is determined through an assessment of one's beliefs regarding the consequences arising from a behavior and an evaluation of the desirability of these consequences (Furneaux, 2005). Behavioral control is defined as one's perception of the difficulty in performing a behavior. TPB suggests control that people have over their behavior as being continual. However, the behaviors are easily adopted only if effort and resources merge (Furneaux, 2005). The TPB takes into account that all behavior is not under volitional control and that behaviors are located at some point along a continuum that extends from total control to a complete lack of control. Control factors include both internal factors and external factors (Ajzen, 1988).

The goal of TPB is to not only predict but also explain human behavior. The theory suggests behavior is a function of salient beliefs relevant to specific behaviors. These beliefs are considered the determinants of an individual's intentions and actions (Ajzen, 1991). These salient beliefs include: behavioral beliefs, normative beliefs and

control beliefs. Behavioral beliefs influence attitudes toward the behavior. Normative beliefs are the underlying components of subjective norms; and control beliefs provide the foundation for perception of behavioral control (Ajzen, 1991).

The Theory of Planned Behavior is an extension of the Theory of Reasoned Action (TRA), which was formulated by Martin Fishbein. TRA resulted from research from the Expectancy Value Models, after attempting to estimate the discrepancy between attitude and voluntary behavior (Ajzen, 1991). Theory of Reasoned Action suggests the determinant of behavior is an individual's intention to perform the behavior. Intention is a functionality derived from attitude toward the behavior and subjective norm. Intention is defined as the cognitive representation of a person's readiness to perform a given behavior, and it is antecedent of behavior (Ajzen, 1991). Upon further TRA analysis, behavior appeared not to be 100% voluntary and under control, this resulted in the addition of perceived behavioral control construct, and subsequent title of Theory of Planned Behavior (Ajzen, 1991).

The Theory of Planned Behavior (TPB) has been used in a wide variety of health education programming. Schifter and Ajzen (1985) utilized TPB to successfully predict weight reduction among women enrolled in college. The findings suggested that intentions to lose weight was dependent upon their attitudes, subjective norms and perceived control. Researchers noted weight lost increased with active planning and ego strength (Schifter & Ajzen, 1985).

Norman, Conner and Bell (1999) extended the theory in the study of smoking cessation, with participants obtained through primary care setting clinics. The finding

suggested intention to quit smoking could be predicted by perceived behavioral control and perceived susceptibility. Norman et al. (1999) determined interventions must focus on perceptions of susceptibility and control to increase the likelihood of cessation. Bryan, Fisher & Fisher (2002) incorporated TPB into their research to prove that preparatory behaviors play a vital role in the relationship between psychosocial variables (i.e., attitudes, beliefs) and condom usage. The results suggested the correlation is significantly high between the two among inner-city high school students (Bryan et al., 2002).

Kassem, Lee, Modeste & Johnston (2003) further applied TPB to understand soft drink consumption among female adolescents. The study illustrated attitude, subjective norm and perceived behavioral control as having a positive association with intention. However, attitude was the strongest, with the most statistical significance (Kassem et al., 2003). Another use of the Theory of Planned Behavior in health education is its prediction of healthy eating behaviors among youth. Fila and Smith (2006) used the theory among Native American youth and found no association between intention and healthy eating behaviors. However, independently, healthy eating behavior was correlated with subjective norm, perceived behavioral control, attitude and barriers.

The small body of research explored in the above literature review illustrates the need for researchers to explore many variables when using TPB for theoretical guidance. As it relates to the dissertation design, literature is limited in the study of TPB being applied to the public health workforce to understand and modify behavior (Perkins et al., 2007). Perkins et al. (2007) conducted a literature review and found different constructs

of TPB predict intentions depending upon the target group, and for different guidelines and behaviors. It is believed the rationale provided by the small meta-analysis gives guidance for future research direction (Perkins et al., 2007). The hypothesis for the dissertation study can be designed to further the knowledge of TPB as a predictor for various actions. Predictions include:

1) If public health employees have positive attitudes of health disparities factors and their role in its elimination, then they are more likely to participate in continuing education.

2) If public health employees are provided with cultural competence and health disparities training, then they have a heightened sense of knowledge of attitudes conducive to implementing effective clinical encounters.

4.2.4 Assessment Tool

The Cultural Competence Assessment (CCA) is designed to explore individual knowledge, feelings and actions of respondents when interacting with others in health service environments (Schim, 2009). The instrument is based on the cultural competence model, and measures cultural awareness and sensitivity; cultural competence behaviors and cultural diversity experience and training on a 49 item scale (see Appendix A). It seeks to assess actual behaviors through a self report, rather than self-efficacy of performing behaviors (Doorenbos, Schim, Benkert & Borse, 2005).

Cultural awareness and sensitivity is analyzed with the Cultural Awareness and Sensitivity (CAS) subscale which measures with a 5-point likert-like response. Within this dissertation design, the CAS scale was divided in two sections, *knowledge* and *culturally sensitive attitudes*. An assessment of cultural competence behaviors is measured by the Cultural Competence Behaviors (CCB) subscale, with response

categories of always, often, at time, never, and not sure (Doorenbos et al., 2005). A single-item index is used for cultural diversity experience with respondents being asked about the amount of various encounters with minority groups within the past year. Subscale scores are provided by adding the CAS and CCB totals (Doorenbos et al., 2005). Higher scores indicate more positive attitudes, a higher level of knowledge and increased engagement of competence behaviors. In addition, CCA assesses self identified ethical/racial group, age and education (Doorenbos et al., 2005).

A convenience sample of 405 healthcare providers were recruited from hospitals, home health agencies and community health agencies, to research CCA reliability and validity among the population. Content and face validity for the instrument was established and the internal consistency was documented at .92. Cronbach's alphas for CAS and CCB subscales were reported at .75 and .93, respectively (Doorenbos et al., 2005). The psychometric analysis of CCA suggests it is an effective tool to measure cultural competence. It is useful to evaluate healthcare professionals' specific cultural competence training needs which may decrease health disparities (Doorenbos et al., 2005).

Paez et al. (2007) utilized the Cultural Competence Behaviors (CCB) subscale tool to determine if there is an association between cultural competence of primary care providers and the clinics in which they are employed. Forty-nine providers, from twenty-three clinics responded to the online survey, across two states. The researchers suggested providers with who possess attitudes which reflect increased cultural learning

motivation, are more likely to work in clinics which offer diversity training and cultural competent patient education materials (Paez et al., 2007).

Starr and Wallace (2009) examined cultural competence of thirty-one public health nurses with CCA. In addition, participants documented personal experiences and perceptions of culturally competent healthcare through qualitative data collection. The findings concluded participation in specific types of training was highly correlated to cultural competence knowledge and attitudes. Many reported increased levels of cultural competency knowledge and beliefs; however they disclosed the need for diversity education opportunities, to enable favorable clinical application (Starr & Wallace, 2009).

4.3 Results

Culturally sensitive attitude scores were determined by the analysis of specific items within the assessment tool (see Figure 4). The data was then assessed to determine association between cultural knowledge items (see Figure 2) and behavioral engagement items (see Figure 3). The data analysis concluded no statistically significant association between respondents' attitudes; and levels of culturally competent behavior engagement and past diversity training participation. However, using the Fisher's Exact Test, within both the clinical and non-clinical groups, a positive association exists between average knowledge scores and culturally sensitive attitudes score (see Table 12 and Table 13). Respondents with increased levels of knowledge possessed attitudes which encompass dignity and respect of minority groups, potentially improving clinical interactions.

There were no significant differences found in attitudes and behavior across race and ethnicity. However, African Americans and Hispanic/Latinos within the non-

clinical subgroup possessed more culturally sensitive attitudes compared to their clinical peers within the same race/ethnicity classification. In addition, non-clinical respondents identifying themselves as Caucasian displayed a lower culturally sensitive attitude score than their clinical peers (see Table 14). Analysis of diploma, high school and GED levels of education suggested culturally sensitive attitudes scores are comparable throughout the subgroups. However, non-clinical workers with Associate and Bachelors degrees had possessed more culturally sensitive attitudes (CAS) than their clinical counterparts. Clinical staff with graduate or professional degrees scored higher in the CSA analysis than non-clinical peers (see Table 15).

Criteria Examined
I believe that everyone should be treated with respect no matter what their cultural heritage may be.
I understand that people from different cultures may define the concept of "health care" in different ways.
I think that knowing about different cultural groups helps direct my work with individuals, families, groups and organizations.

Figure 4. ***Items examined for culturally sensitive attitudes score***

Table 12. ***Cross-tabulation of knowledge scores by culturally sensitive attitudes scores among clinical staff***

Table of Knowledge by Culturally Sensitive Attitudes				
Knowledge Score Quartile	**Culturally Sensitive Attitudes Score Quartile**			
Frequency **Percent** **Row Pct** **Col Pct**	**1**	**2**	**4**	**Total**
1	5 8.06 31.25 41.67	6 9.68 37.50 23.08	5 8.06 31.25 20.83	16 25.81
2	3 4.84 23.08 25.00	6 9.68 46.15 23.08	4 6.45 30.77 16.67	13 20.97
3	2 3.23 11.76 16.67	9 14.52 52.94 34.62	6 9.68 35.29 25.00	17 27.42
4	2 3.23 12.50 16.67	5 8.06 31.25 19.23	9 14.52 56.25 37.50	16 25.81
Total	12 19.35	26 41.94	24 38.71	62 100.00
Fisher's Exact Test **Table Probability (P) 7.549E-05** **Pr <= P 0.5978**				

Table 13. ***Cross-tabulation of knowledge scores by culturally sensitive attitudes scores among non-clinical staff***

Table of Knowledge by Culturally Sensitive Attitudes				
Knowledge Score Quartile	**Culturally Sensitive Attitudes Score Quartile**			
Frequency Percent Row Pct Col Pct	**1**	**2**	**4**	**Total**
1	4 14.29 40.00 80.00	1 3.57 10.00 8.33	5 17.86 50.00 45.45	10 35.71
2	0 0.00 0.00 0.00	6 21.43 75.00 50.00	2 7.14 25.00 18.18	8 28.57
3	0 0.00 0.00 0.00	2 7.14 100.0 0 16.67	0 0.00 0.00	2 7.14
4	1 3.57 12.50 20.00	3 10.71 37.50 25.00	4 14.29 50.00 36.36	8 28.57
Total	5 17.86	12 42.86	11 39.29	28 100.0 0

Fisher's Exact Test
Table Probability (P) 7.434E-05
Pr <= P 0.0482

Table 14. ***Culturally sensitive attitudes score averages by race/ethnicity***

Race/Ethnicity	***Culturally Sensitive Attitudes Score (mean)***	
	Clinical *(SD=0.65)*	**Non-clinical** *(SD=0.81)*
Hispanic/Latino (including Mexican, Mexican American, Chicano, Puerto Rican, Cuban, other Spanish)	1.840	1.881
White/Caucasian/European American	1.777	1.333
Black/African American/Negro	1.769	1.917
Asian (Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese, or other Asian)	1.667	n/a
Other	2.333	n/a

C ($F= (5,51)= .19$, $p>.05$) NC ($F= (3,25)= .43$, $p>.05$)

Table 15. ***Culturally sensitive attitudes score averages by education***

Highest Level of Education Completed	***Culturally Sensitive Attitudes Score (mean)***	
	Clinical *(SD=0.65)*	**Non-clinical** *(SD=0.81)*
Less than high school	3.000	n/a
Diploma	1.90	1.888
High School or GED	1.880	1.871
Associate degree	1.575	2.250
Bachelors degree	1.761	1.833
Graduate or Professional degree	1.545	1.000

C ($F=(6,45) =1.19$, $p>.05$) ; NC ($F= (5, 22)= .73$, $p>.05$)

4.4 Discussion

Life expectancy and overall health have improved in recent years for most Americans, thanks in part to an increased focus on preventive medicine and dynamic new advances in medical technology. However, not all Americans are benefiting equally. For too many racial and ethnic minorities in the United States, good health is elusive, since appropriate care is often associated with an individual's economic status, race, and gender. Despite notable progress in the overall health of the nation, there are continuing disparities in the burden of illness and death experienced by Blacks or African Americans, Hispanics or Latinos, American Indians and Alaska Natives, and Native Hawaiian and other Pacific Islanders, compared to the U.S. population as a whole (OMHHD, 2010).

Racial and ethnic health disparity data from a national perspective indicates there is much to learn in the public health workforce about the ongoing health disparity crisis in our state and nation. This suggests a level of urgency for need to assist our public health professionals in obtaining specific skills sets that will assist them in working better with ethnic and racial minority populations. These skills encompass culturally competent care and entails understanding the social and cultural factors which influence individual health beliefs and behaviors (Harvard Catalyst, 2010).

Van Ryn and Fu (2003) stated public health providers may influence race/ethnicity and socioeconomic health disparities in numerous areas. Providers may reflect and/or reinforce societal notions regarding patients' own value, self-reliance, knowledge, and deservingness of effective care. In addition, providers have the ability to

communicate lower expectations for patients in disadvantaged social and economic positions (Van Ryn & Fu, 2003). This is an example of the public health workforce's influence on individual's expectations for the degree to which they expect to obtain the resources and services they need, and their expectations for improvements in their conditions and situations.

Novack et al. (1997) suggested when healthcare providers' values, attitudes, biases and past experiences have a direct impact on communication with patients. Negative clinician attitudes may be a barrier to healthcare by some ethnic/racial minority groups. Paez, Allen, Carson and Cooper (2007) noted providers who possess an understanding of the outcomes of cultural diversity in customs and values; and oppressive acts within healthcare, are more confident in caring for underserved patients. Researchers suggested a possible reason for this is health professionals' level of comfortability in providing services to patients of diverse ethnic/racial minority backgrounds, have an open-mind to cultural competence (Paez et al., 2007). In order to establish this competency in clinical care settings, it requires practitioners continuously self-critique and reflect, while seeking to understand the experience from the patients' perspective (Paez et al., 2007).

The analysis of research determined healthcare professionals' level of knowledge was associated with possessing culturally sensitive attitudes. This suggests when individuals are knowledgeable; they have the necessary foundation to develop beliefs and attitudes conducive to creating an effective clinical encounter. Educational programs must include components which increase participant awareness of diversity. In addition,

training should encompass lessons to foster self-reflection of one's own bias and beliefs and its effect on how workers provide health services.

5. SUMMARY AND CONCLUSIONS

5.1 Summary

Of the sixty-two clinical respondents, 47% were African American, 44% Hispanic/Latino and 5% Caucasian. This was comparable to the non-clinical subgroup with 43% being comprised of African Americans, 50% Hispanic/Latino and 7% of the total population identifying themselves as Caucasian. In addition, respondents reported high levels of interaction with patients from ethnic and racial minorities. Respondents were asked about their knowledge of CLAS adherence and over two-thirds of both subgroups were not sure if their clinic of employment implemented some of the recommended standards. Observing the clinical and non-clinical respondents, approximately 47% and 57% respectively, stated their cultural diversity training was an employer sponsored program.

Continuing education offered training was reported among clinical workers at roughly 24% and 35% for non-clinical staff. When assessing respondents with diversity training preparational behaviors, clinical workers sought out information on cultural needs when identifying new individuals in the work environment more often than their non-clinical counterparts. Clinical respondents also had a better understanding of the variance in the definition of “health care” by patients from racial and ethnic minority backgrounds.

Within the non-clinical group, a positive association was found between respondents' knowledge score and diversity training. In addition, non-clinical staff who participated in diversity training in the past had a significantly higher mean knowledge score than their counterparts who had not undergone training. This suggests if healthcare professionals engage in cultural competence education their level of awareness of unique characteristics between ethnic and racial minorities increases. Within the same subgroup, the data analysis confirmed a statistically significant positive association between knowledge score and average culturally competent behavioral score. This allowed researchers to conclude those who exhibit the healthiest behaviors as it relates to effectively working with diverse populations, had a heightened sense of knowledge related to race/ethnicity and healthcare services.

There were no significant differences found in mean scores of knowledge or behavior across race/ethnicity among clinical or non-clinical respondents. However, across all races and ethnicity categories, clinical respondents had higher average knowledge scores compared to their non-clinical peers. Analysis of engagement of culturally appropriate behavior activity determined non-clinical Hispanics/Latinos and Whites engaged in behaviors more conducive to healthier outcomes for patients, compared to their clinical counterparts.

The data analysis concluded no statistically significant association between respondents' attitudes; and levels of culturally competent behavior engagement and past diversity training participation. However, using the Fisher's Exact Test, within both the clinical and non-clinical groups, a positive association exists between average

knowledge scores and culturally sensitive attitudes score. Respondents with increased levels of knowledge possessed attitudes which encompass dignity and respect of minority groups, potentially improving clinical interactions. There were no significant differences found in culturally sensitive attitudes across race/ethnicity. However, African Americans and Hispanic/Latinos within the non-clinical subgroup possessed more culturally sensitive attitudes compared to their clinical peers within the same race/ethnicity classification.

5.2 Conclusions

Life expectancy and overall health have improved in recent years for most Americans, thanks in part to an increased focus on preventive medicine and dynamic new advances in medical technology (Office of Minority Health & Health Disparities, 2010). However, not all Americans are benefiting equally. For too many racial and ethnic minorities in the United States, good health is elusive, since appropriate care is often associated with an individual's economic status, race, and gender (OMHHD, 2010). Indeed, despite notable progress in the overall health of the nation, there are continuing disparities in the burden of illness and death experienced by Blacks or African Americans, Hispanics or Latinos, American Indians and Alaska Natives, and Native Hawaiian and other Pacific Islanders, compared to the U.S. population as a whole (OMHHD, 2010).

Racial and ethnic health disparity data from a national perspective indicates a level of urgency for need to assist our public health professionals in obtaining specific skills sets that will assist them in working better with ethnic and racial minority

populations. These skills encompass culturally competent care and entails understanding the social and cultural factors which influence individual health beliefs and behaviors (Harvard Catalyst, 2010). Public health workers are vital in preventing, controlling and eliminating health disparities. The Office of Minority Health (2006) noted health care is a cultural construct, derived from beliefs about the nature of disease and the human body. Because of this, cultural issues are essential in the avenue of delivery of health services treatment and preventive interventions. By understanding, valuing, and incorporating the cultural differences of populations and exploring personal health-related values and beliefs, public health workers can support a system that directly addresses the unique needs of racial and ethnic minority populations (Office of Minority Health, 2006).

Paez, Allen, Carson and Cooper (2007) noted providers who possess an understanding of the outcomes of cultural diversity in customs and values; and oppressive acts within healthcare, are more confident in caring for underserved patients. Researchers suggested a possible reason for this is health professionals' level of comfortability in providing services to patients of diverse ethnic/racial minority backgrounds, have an open-mind to cultural competence (Paez et al., 2007). In order to establish this competency in clinical care settings, it requires practitioners continuously self-critique and reflect, while seeking to understand the experience from the patients' perspective (Paez et al., 2007).

The results of this research highlight the need to increase the capacity of health care professionals in working with diverse populations. Respondents with past diversity

training displayed a higher level of culturally competent knowledge when interacting with clients and patients. In turn, their knowledge and awareness led to them engaging in behaviors conducive to improving racial/ethnic health outcomes. Training programs must incorporate educational components which foster skill building to enable subsequent culturally appropriate clinical interactions.

The analysis of research also determined healthcare professionals' level of knowledge was associated with possessing culturally sensitive attitudes. This suggests when individuals are knowledgeable; they have the necessary foundation to develop beliefs and attitudes conducive to creating an effective clinical encounter. Educational programs must include components which increase participant awareness of diversity. In addition, training should encompass lessons to foster self-reflection of one's own bias and beliefs and its effect on how workers provide health services.

There are a few limitations to note regarding this research study. Many of respondents chose to not answer some questions, making the response rate low for specific items. In addition, because of low cell counts and unequal variance, chi-squared tests were not used do to the potential of inaccuracy. The outcomes of the case study suggests the benefits of examination on a larger scale. In addition, the majority of staff participated in past employer sponsored diversity training which may contribute to the favorable knowledge, culturally sensitive attitudes and behavior engagement scores. Potential future research direction includes a larger sample size from additional clinical sites. An experimental design, with a control group, would also allow further evaluation of the association between training, and psycho-emotional and behavioral tendencies.

Research, such as this dissertation, contributes to the knowledge base of academicians, healthcare professionals and organizations as it relates to proactively addressing effective practices in providing services for ethnic and racial minority patients. Those in the academe must stay abreast of issues which arise during practice in order to prepare students with the skills and competencies they must possess to work with these vulnerable populations. When practitioners have a heightened sense of awareness, knowledge and sensitivity, they implement patient-healthcare professional interaction behaviors conducive to improving health outcomes for those they serve.

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APPENDIX A

CULTURAL COMPETENCE SURVEY

Increasing cultural diversity of people in our communities and workplaces is a fact of life. Diversity among students, co-workers, and organizations is also expanding. Improvements in travel and communication have brought people with different cultures, languages, and customs into contact as never before. A greater variety of people within our communities, schools, and workplaces continues to have an impact on the way that we think, feel, and act.

This survey is designed to explore your knowledge, feelings, and actions when you interact with others in the context of health care and health service environments and in academic settings. *Your answers are strictly confidential.* The researchers will put your answers together with those of others to get an overall profile for group cultural competence and educational needs. We will also use your responses together with those of other people such as yourself to design cultural competency training programs to meet specific needs. Neither your identity nor your individual answers will be shared with anyone.

Questions on this survey are intended to gather information about how you personally think, feel, and act. Some questions may not fit your situation exactly depending on the type of work you do at this time. Please try to answer every question. If you are unsure or have no opinion on an item, use the "No Opinion" or "Not Sure" options. There are no "right" or "wrong" answers.

Completing this survey is completely voluntary. It will take about 20 minutes of your time. You may choose not to participate. You may stop at any time. Your completion of the survey indicates your informed consent to participate in this study.

NOTE: This instrument may only be used with the express permission of the authors. For information contact:

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1. In the past 12 months, which of the following racial/ethnic groups have you encountered among your clients and their families or within the health care environment or workplace? *Mark 'X' for all that apply.*

   - ❑ Hispanic/Latino (including Mexican, Mexican American, Chicano, Puerto Rican, Cuban, other Spanish)
   - ❑ White/Caucasian/European American
   - ❑ Black/African American/Negro
   - ❑ American Indian/Alaska Native
   - ❑ Asian (Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese, or other Asian)
   - ❑ Native Hawaiian/Pacific Islander
   - ❑ Arab American/Middle eastern
   - ❑ Other (specify) _____

2. In your current environment what percentage of the total population is made up of people from these racial/ethnic groups? *Write in percents to add to 100%*

   ____ Hispanic/Latino (including Mexican, Mexican American, Chicano, Puerto Rican, Cuban, other Spanish)
   ____ White/Caucasian/European American
   ____ Black/African American/Negro
   ____ American Indian/Alaska Native
   ____ Asian (Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese, or other Asian)
   ____ Native Hawaiian/Pacific Islander
   ____ Arab American/Middle Eastern
   ____ All other groups combined
   100 % = TOTAL

3. In the past 12 months which of the following special population groups have you encountered among your clients and their families or within the health care environment or workplace? *Mark 'X' for all that apply.*

   - ❑ Mentally or emotionally Ill
   - ❑ Physically Challenged/Disabled
   - ❑ Homeless/Housing Insecure
   - ❑ Substance Abusers/Alcoholics
   - ❑ Gay, Lesbian, Bisexual, or Transgender
   - ❑ Different religious/spiritual backgrounds
   - ❑ Other (specify)

     _____

4. In your current environment what percentage of the total population is made up of people from these special population groups? *Write in percents; may not total 100%*

   ____ Mentally or emotionally Ill
   ____ Physically Challenged/Disabled
   ____ Homeless/Housing Insecure
   ____ Substance Abusers/Alcoholics
   ____ Gay, Lesbian, Bisexual, or Transgender
   ____ Different religious/spiritual backgrounds

5. Overall, how competent do you feel working with people who are from cultures different than your own?

Very competent	Somewhat competent	Neither competent nor incompetent	Somewhat Incompetent	Very Incompetent
❑	❑	❑	❑	❑

For each of the following statements, put an 'X' in the box that best describes how you feel about the statement.

6. Race is the most important factor in determining a person's culture.

Strongly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Strongly Disagree	No Opinion
❑	❑	❑	❑	❑	❑	❑	❑

7. People with a common cultural background think and act alike.

Strongly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Strongly Disagree	No Opinion
❑	❑	❑	❑	❑	❑	❑	❑

8. Many aspects of culture influence health and health care.

Strongly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Strongly Disagree	No Opinion
❑	❑	❑	❑	❑	❑	❑	❑

9. Aspects of cultural diversity need to be assessed for each individual, group, and organization.

Strongly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Strongly Disagree	No Opinion
❑	❑	❑	❑	❑	❑	❑	❑

10. If I know about a person's culture, I don't need to assess their personal preferences for health services.

Strongly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Strongly Disagree	No Opinion
❑	❑	❑	❑	❑	❑	❑	❑

11. Spiritually and religious beliefs are important aspects of many cultural groups.

Strongly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Strongly Disagree	No Opinion
❑	❑	❑	❑	□	□	□	□

12. Individual people may identify with more than one cultural group.

Strongly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Strongly Disagree	No Opinion
□	□	□	□	□	□	□	□

13. Language barriers are the only difficulties for recent immigrants to the United Sates.

Strongly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Strongly Disagree	No Opinion
□	□	□	□	□	□	□	□

14. I believe that everyone should be treated with respect no matter what their cultural heritage.

Strongly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Strongly Disagree	No Opinion
□	□	□	□	□	□	□	□

15. I understand that people from different cultures may define the concept of "health care" in different ways.

Strongly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Strongly Disagree	No Opinion
□	□	□	□	□	□	□	□

16. I think that knowing about different cultural groups helps direct my work with individuals, families, groups, and organizations.

Strongly Agree	Agree	Somewhat Agree	Neutral	Somewhat Disagree	Disagree	Strongly Disagree	No Opinion
□	□	□	□	□	□	□	□

***For each of the following statements put 'X' in the box that best describes how often you do the following*:**

17. I include cultural assessment when I do individual or organizational evaluations.

Always	Very Often	Somewhat Often	Often	Sometimes	Few Times	Never	Not sure
□	□	□	□	□	□	□	□

18. I seek information on cultural needs when I identify new people in my work or school.

Always	Very Often	Somewhat Often	Often	Sometimes	Few Times	Never	Not sure
□	□	□	□	□	□	□	□

19. I have resource books and other materials available to help me learn about people from different cultures.

Always	Very Often	Somewhat Often	Often	Sometimes	Few Times	Never	Not sure
□	□	□	□	□	□	□	□

20. I use a variety of sources to learn about the cultural heritage of other people.

Always	Very Often	Somewhat Often	Often	Sometimes	Few Times	Never	Not sure
□	□	□	□	□	□	□	□

21. I ask people to tell me about their own explanations of health and illness.

Always	Very Often	Somewhat Often	Often	Sometimes	Few Times	Never	Not sure
□	□	□	□	□	□	□	□

22. I ask people to tell me about their expectations for health services.

Always	Very Often	Somewhat Often	Often	Sometimes	Few Times	Never	Not sure
□	□	□	□	□	□	□	□

23. I avoid using generalizations to stereotype groups of people.

Always	Very Often	Somewhat Often	Often	Sometimes	Few Times	Never	Not sure
□	□	□	□	□	□	□	□

24. I recognize potential barriers to service that might be encountered by different people.

Always	Very Often	Somewhat Often	Often	Sometimes	Few Times	Never	Not sure
□	□	□	□	□	□	□	□

25. I remove obstacles for people of different cultures when I identify barriers to services.

Always	Very Often	Somewhat Often	Often	Sometimes	Few Times	Never	Not sure
□	□	□	□	□	□	□	□

26. I remove obstacles for people of different cultures when people identify barriers to me.

Always	Very Often	Somewhat Often	Often	Sometimes	Few Times	Never	Not sure
□	□	□	□	□	□	□	□

27. I welcome feedback from clients about how I relate to people from different cultures.

Always	Very Often	Somewhat Often	Often	Sometimes	Few Times	Never	Not sure
□	□	□	□	□	□	□	□

28. I find ways to adapt my services to individual and group cultural preferences.

Always	Very Often	Somewhat Often	Often	Sometimes	Few Times	Never	Not sure
□	□	□	□	□	□	□	□

29. I document cultural assessments if I provide direct client services.

Always	Very Often	Somewhat Often	Often	Sometimes	Few Times	Never	Not sure
□	□	□	□	□	□	□	□

30. I document the adaptations I make with clients if I provide direct client services.

Always	Very Often	Somewhat Often	Often	Sometimes	Few Times	Never	Not sure
□	□	□	□	□	□	□	□

Your answers to these last few questions will help us understand responses from different kinds of people who complete the survey. <u>ALL answers are strictly confidential.</u>

Read each item below and decide whether the statement is true or False as it pertains to you personally. Mark your answers with an 'X' in the True or False box.

31. It is sometimes hard for me to go on with my work if I am not encouraged.

True	False
□	□

32. I sometimes feel resentful when I don't get my way.

True	False
□	□

33. On a few occasions, I have given up doing something because I thought too little of my ability.

True	False
□	□

34. There have been times when I felt like rebelling against people in authority even though I knew they were right.

True False
□ □

35. False matter who I'm talking to, I'm always a good listener.

True False
□ □

36. There have been occasions when I took advantage of someone.

True False
□ □

37. I'm always willing to admit it when I make a mistake.

True False
□ □

38. I sometimes try to get even rather than forgive and forget.

True False
□ □

39. I am always courteous, even to people who are disagreeable.

True False
□ □

40. I have never been irked when people expressed ideas very different from my own.

True False
□ □

41. There have been times when I was quite jealous of the good fortune others.

True False
□ □

42. I am sometimes irritated by people who ask favors of me.

True	False
☐	☐

43. I have never deliberately said something to hurt someone's feelings.

True	False
☐	☐

44. What is your age? ☐

45. Using the categories below, what do you consider yourself? *(Choose one or more)*

- ❑ Hispanic/Latino (including Mexican, Mexican American, Chicano, Puerto Rican, Cuban, other Spanish)
- ❑ White/Caucasian/European American
- ❑ Black/African American/Negro
- ❑ American Indian/Alaska Native
- ❑ Asian (Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese, or other Asian)
- ❑ Native Hawaiian/Pacific Islander
- ❑ Arab American/Middle eastern
- ❑ Other (specify) _____

46. What is your highest level of education completed?

- ❑ Less than high school
- ❑ Diploma
- ❑ High school or GED
- ❑ Associate degree
- ❑ Bachelors degree
- ❑ Graduate or professional degree

47. Have you ever participated in cultural diversity training?	Yes	NO
	☐	☐

48. If you have had prior diversity training, which option below best describes it? *(Check all that apply)*

- ❑ Separate college course for credit
- ❑ Content covered in a college course
- ❑ Professional Conference or Seminar
- ❑ Employer Sponsored Program
- ❑ On-line (computer assisted) Education
- ❑ Continuing Education Offering
- ❑ Other diversity training types (Specify) _____

49. Does your place of employment adhere to any recommended CLAS national standards?

Yes	No	Not Sure
❑	❑	❑

50. Which of the following best describes your current role?

- ❑ LPN
- ❑ RN
- ❑ Clerical Worker
- ❑ Nutritionist
- ❑ Therapist (occupational or physical)
- ❑ Physician
- ❑ Other _____

Thank you for taking this survey. We appreciate your time and effort!

If you have any questions or concerns about this research, please contact:

APPENDIX B

SAMPLING TECHNIQUES

Random sampling refers to any sampling technique that utilizes a random selection method (Trochim, 2006). It ensures the elimination of selection and researcher bias. It also allows researchers to factually develop general conclusions about study participants (Trochim, 2006). Types of random sampling are simple random sampling, stratified random sampling, cluster random sampling and multi-stage sampling (McIntosh, 2008). Trochim (2006) notes stratified random sampling involves the division of the population into homogenous subgroups, in which a simple random sample is applied. Stratified random sampling can be placed into two categories, disproportionate and proportionate stratifications. Proportionate stratification involves a sample size of each of the stratum that is proportionate to the population size of the same stratum (Lund Research, 2010a). Particularly in public health, the approach it ensures not only representation of entire populations, but also key subgroups of the population, such as small minority groups (Trochim, 2006). A disadvantage Lund Research (2010a) documented about the stratified random sampling method is the requirement of the existence of a complete population list, which is frequently nonexistent. However, when a list is available the population must belong to only one delineated stratum (Lund Research, 2010a).

Non-random sampling is a technique in which samples are gathered in a process that gives individuals in the population unequal chances of being selected. This approach is ideal for researchers with time, money and workforce constraints (Castillo, 2009).

Types of non-random sampling include: convenience sampling, consecutive sampling, quota sampling, and snowball sampling (Castillo, 2009). Castillo (2009) states it seeks for the inclusion of all accessible participants. In research, consecutive sampling is considered the most beneficial of non-random approaches. It enables the promotion of representation of the population as a whole. However, because of the absence of randomization, generalizability can never be determined (Castillo, 2009).

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