Organizational Cultural Competence Assessment of Health-Related Academic Units

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ABSTRACT

The US is increasingly becoming more diverse; however, racial and ethnic minorities are more likely to experience health disparities and poor health outcomes. To better respond to the needs of diverse populations, cultural competence training for future health professionals is needed. Important to the cultural competence of individuals is organizational cultural competence. Models and recommendations have been developed to apply cultural competence education and training formally in government agencies, health care organizations, and academia. An example of such a model in academia is the Dotson Organizational Cultural Competence Model for Health-Related Academic Units, which consists of 4 domains (organizational accountability, stakeholder diversity, access, and communication) with 63 criteria statements. Missing is assessment of organizational cultural competence in academia and the extent to which it is applied in these units. The purpose of this thesis research was to assess the organizational cultural competence performance of post-secondary health-related academic units using the theoretical framework of a capability maturity model. Using a web-based survey, administrators from health-related academic units reported the extent to which organizational cultural competence criteria statements were applied in their units using a Likert-like scale (1 = Strongly agree, 6 = Strongly disagree). The overall cultural competence of units was described using means and standard deviations of total score from criteria statements and domain scores. Univariate analysis of variance (ANOVA) revealed no differences by academic homes in applying cultural competence. However, MANOVA revealed significant differences within domains by categorized academic home for overall cultural competence ($p = 0.013$). MANOVA of overall cultural competence and overall cultural competence experience was significant ($p = 0.005$). MANOVA revealed significance within domain scores by organizational cultural competence experience ($p = 0.028$). From Bonferroni post-hoc analysis significance was found within the organizational accountability ($p = 0.003$) and communication domains ($p = 0.004$). Units that engage in diversity planning, curriculum and student evaluations for cultural competence have higher levels of cultural competence. Cultural competence models suggest that cultural competency is an evolving process. Future research should evaluate units from more stakeholder perspectives and link the cultural competence continuum with the capability maturity model.

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CHAPTER 1: INTRODUCTION

It has been documented that the US is becoming ethnically and culturally more diverse (1). In addition, minority populations are growing at a faster rate than the white population (2-3). Despite the growth, minority groups still experience health disparities; thus, minority groups are more likely to have poor health status (4-9). Health disparities among minority groups can be attributed to patients' cultures, which effect their health beliefs and experiences, and providers' lack of experience with patients of different cultural backgrounds (10-11). Efforts to reduce health disparities include diversifying the health profession fields and progressing health professionals towards cultural competency (12-14).

Cultural competence is important to improve patient and provider communications; thus, better decision-making and health outcomes (12). Cultural competence goes beyond increasing diversity, however. It involves systems change and support for cross-cultural training of individuals within the organization (13-15). Cultural competence is defined as "a set of congruent behaviors, attitudes, and policies that come together in a system, agency, or amongst professionals and enables that system, agency, or those professionals to work effectively in cross-cultural situations" (16, p13). Thus, cultural competence can be practiced at both the individual and organizational levels. In addition, cultural competence is not knowledge that has an end point; rather it is a continuous learning process in which individuals and organizations engage (16-18). Individual cultural competence highlights self-awareness and self-reflection, and the development of knowledge, attitudes, and skills to promote effective communication (19). In organizational cultural competence all aspects of the unit provide a structural framework to support culturally competent practices (20). Components of organizational cultural competence can be applied to both healthcare organizations and academic institutions (20).

There have been efforts to apply organizational cultural competence in health care organizations (21-27). An example of organizational cultural competence application is the Culturally and Linguistically Appropriate Services (CLAS) standards established by the US Department of Health and Human Services (HHS) and the Office of Minority Health (OMH) for health delivery systems (28). Organizational assessments were performed to evaluate how organizations, specifically Managed Care Organizations and Local Public Health Agencies, were applying the CLAS standards (21-23) towards cultural competency. In the field of behavioral health, organizational cultural competence assessment was conducted to evaluate the extent to which mental health services were applying standards to meet the needs of diverse populations (24-25). Finally, a framework to assess cultural competence specifically in health care delivery organizations was developed by the Health Resources and Services Administration (HRSA) of the US Department of Health and Human Services (26-27). Though the framework, referred to as the Assessment Profile, is a tool to examine, demonstrate, and document cultural competence in organizations, it is specific to health care delivery organizations and not academic units.

Research studies on organizational cultural competence in academic institutions have been limited. In academic settings, cultural competence training and education has focused on the curriculum (29-32). An example of this is the Medico Curricular Model, which consists of essential cultural competencies for educating and training registered dietitians (29). However, curriculum is only one component of organizational cultural competence in academic units. At the University of Pennsylvania School of Nursing, cultural competence integration was part of the curriculum development. All personnel of the academic unit, which included administrators, faculty, and students, were involved in this developmental process (30-31). In addition to

developing the curriculum, a blueprint was developed to assess the cultural competence content of the curriculum (30-31).

At the University of Tennessee Department of Nutrition in Knoxville (UTK), an organizational cultural competence model was developed specific for post-secondary health-related academic units (33-34). The content validity of the UTK model was tested and refined by Krause using a qualitative approach (35). The new model by Krause, A Model for Organizational Cultural Competence of Health-Related Post-Secondary Academic Departments or Units, addresses organizational cultural competence needs consistent with health care models, but specific for academic settings (35). Dotson further tested the construct validity of the Krause model quantitatively (36). Dotson asked administrators and tenured/tenured-tract faculty of five health-related academic disciplines "What is essential for organizational cultural competence of academic units?" (36) The resulting model includes 4 domains with 63 criteria statements.

To this date, studies of organizational cultural competence in health-related post-secondary academic units or departments have focused on developing conceptual models and curriculum transformation. To examine all activities performed in health-related academic units that contribute to a process towards cultural competency and to training of future health professionals, an organizational assessment is needed. In software engineering business fields, maturity models have been used as a guide to improve processes towards a better product or service (37-40). Thus, this study was to assess organizational cultural competence performance of five health-related academic disciplines by describing their process towards cultural competency. For this study, the capability maturity model (38-40) was used as a theoretical guiding framework to describe an academic unit's process towards becoming culturally competent. The primary research question is:

To what extent are health-related post-secondary academic units applying the Dotson model overall and within domains toward organizational cultural competence?

To answer this question, a web-based survey was conducted in which randomly selected administrators of health-related academic programs used a Likert-like performance scale to describe how the criteria statements in the Dotson model are applied in their academic unit or department. The mean total score criteria statements described how the units collectively apply the model. Mean total domain scores described further how the units collectively apply the Dotson model. Differences by academic units were addressed in two research subquestions:

1. *Are there differences between academic units in how the model is applied?*
2. *Are there differences by academic units for how the model is applied based on organizational cultural competence experience (defined as having or planning for a diversity plan, curriculum assessment, and student evaluation)?*

Results of the study may be used to further understand academic units' processes towards becoming culturally competent. In addition, the results will reveal health-related academic disciplines' performance related to cultural competence training of future health professionals; thus, the maturity of the organizations' practices. Ultimately, the outcomes may be used to inform process improvement for effective practices within these types of academic organizations.

CHAPTER 2: LITERATURE REVIEW

ABSTRACT

Over the years the United States has become increasingly more racially and ethnically diverse. Minority groups, however, are more likely to experience health disparities and poor health outcomes. The gap between minority and majority populations' health outcomes can be attributed to differences in health beliefs and experiences. An effort to eliminate health disparities is through cultural competence education and training of health care professionals. Important to the cultural competence of individuals is organizational cultural competence, which provides support to individuals through systems policies and change. Moreover, cultural competence is not knowledge, which has an end point; rather it is a continuous learning process in which individuals and organizations engage. The literature has documented models and recommendations to apply cultural competence in health care organizations, governmental agencies, and academic units to train and educate future and current health professionals. Though cultural competence in health-related academic units has focused on the curriculum, a few models of organizational cultural competence have been developed specific for academic units. Organizational and individual cultural competence assessments have been documented in health care organizations, and individual cultural competence assessment has been performed in health-related post-secondary academic units. Missing from this piece is assessment of organizational cultural competence in health-related academic units and the extent to which these units are applying cultural competence in their organizations. This literature review builds the foundation of this research study, which was to assess the extent to which post-secondary health-related academic units are applying cultural competence in their organizations.

Demographic Change in the US

Over the decades the US has seen a growth in population and become an increasingly diverse nation. In a 2008 Press Release the US Census Bureau announced that the US will be an older and more diverse nation by the middle century (1). In 2010 the population reached over 300 million people, and by the mid 21st century the number will more than likely double from the 1995 population (2). The nation will become older as the Baby Boomers (people born post World War II) age. In addition to the aging of the population and population growth, the US has become ethnically and racially more diverse with a growing number of minorities and foreign-born groups (3). The proportions of minority groups, such as Black, Asian, American Indian, and Hispanic populations, are increasing compared to the majority group, or the White population (2). In 1995 non-Hispanic Whites accounted for 74% of the population and by 2010 they decreased to 64% of the population (2). Furthermore, it is projected that as the growth of the non-Hispanic white population continues to decline, it will decrease to 46% of the US population by 2050 (2). Thus, the projections suggest that in the next few decades the current minority populations will become the majority in the US (1).

Health Disparities

Despite major advances in health care and technology, there are still gaps in the health status of minority populations compared to the majority population (4). Some racial and ethnic minorities experience higher morbidity rates from chronic diseases, such as cardiovascular disease, cancer, and diabetes just to name a few, and higher mortality rates (5-6). Different factors contribute to health disparities. It has been shown that members of a minority group are more likely to be of lower socioeconomic status, hold hazardous jobs, and be less likely to have insurance coverage (5). In addition, members of minority groups are more likely to experience lower quality health care services and have less access to the health care system (5-6). The lack of insurance coverage puts minority groups at further disadvantage, which prevents them from accessing preventive care and receiving early diagnosis of diseases; thus, causing higher rates of emergency care and hospitalization (5,7- 8). However, even after adjusting for socioeconomic status, insurance coverage, and other confounding factors, racial and ethnic disparities still exist (5-6,9). The health disparity gaps for minority groups can be attributed to individuals' perceptions about health, beliefs, and values, and also the ability to communicate with health care providers (5). The differences in cultures affect individuals' health beliefs and experiences in health care; thus, providers' lack of knowledge of patients' backgrounds can potentially lead to health disparities (10-11). A strategy to address health care disparities is to increase diversity and cultural competence of health professionals (12).

Culturally Competent Health Care Workforce

In 2004 the Institute of Medicine (IOM) released a report which stated that diversity in the health care work force is associated with improved access to care for minority groups (13). However, despite the increasing growth of the minority population, representation of minority groups in the health professions has not grown at the same rate (13-14). In a 2003 article, "Building the Case for Cultural Competence," Genao and colleagues indicated that there has not been a proportionate increase in the number of minorities in the health fields in the US despite the growing number of minority populations (14). For example, in the last 50 years there has only been a 12% increase in minority graduates of medical schools (14). In addition, the IOM reported that Hispanics represent only 2% of nurses in the US despite their large proportion in the US population, and overall fewer than 1 in 20 African-Americans is a dentist or physician

(13). Because of these differences health organizations and health professions' educational institutions have begun initiatives to increase the proportion of underrepresented minorities (13). Though diversifying the health profession fields is important, it is important also to have culturally competent individuals and environments (14-15).

Why is cultural competence important in health care? The IOM reported that sociocultural differences between patients and providers influence communication and decision-making (12). Cultural competence addresses how culture plays a role in health because it shapes individuals' attitudes, values, and beliefs (14). Thus, it affects how health problems are communicated and it impacts health outcomes (14). However, health professionals cannot be culturally competent solely by reading textbooks and listening to lectures (15). Cultural competence training should include interacting and encountering individuals from diverse backgrounds. Moreover, it has been suggested that health professionals must be trained not only in an organization that is culturally diverse, but also in one that promotes equity in its institution through cultural competence training and systems change (12). In academic settings it also is important to have administration, policies, practices, and environments that promote and support cultural competence (14).

Defining Cultural Competence

Culture is influenced by different factors, including race, ethnicity, nationality, language, and gender. However, it also is affected by other factors, such as socioeconomic status, physical and mental ability, sexual orientation, and occupation (10). Cultural competency requires an understanding of individuals' cultures, which includes beliefs, values, preferences, and experiences (5,11). Cross and colleagues defined cultural competence as "a set of congruent behaviors, attitudes, and policies that come together in a system, agency, or amongst professionals and enables that system, agency, or those professionals to work effectively in cross-cultural situations" (16, p13). Cultural competence can be practiced at the individual and organizational levels. Cultural competency is not knowledge that has an end-point; rather, it is a continuous active learning process that involves integration of cultural awareness, cultural knowledge, cultural skills, cultural encounters, and cultural desire (17-18). Cross and colleagues described cultural competence as a developmental process and that the process ranges in a continuum from cultural destructiveness to cultural proficiency (Figure 1) (16). Thus, cultural competency is a goal towards which professionals, agencies, and systems can strive (16).

Individual Cultural Competence

Individuals can receive cultural competence training in academic units and health care settings. Cultural competence training and education allow individuals to develop attitudes, knowledge, and skills, which promote the ability to communicate and work effectively with different members of the community (19). This is important because individuals must first address their own personal understanding, knowledge, attitudes, beliefs, ethics, values, and life experiences to be able to interact with different members of the community (19). In individual cultural competence, initially self-reflection and self-awareness are emphasized for one's development of cultural competence (11,19). This is because knowledge without a change in attitudes and behaviors is not adequate for professional development (11).

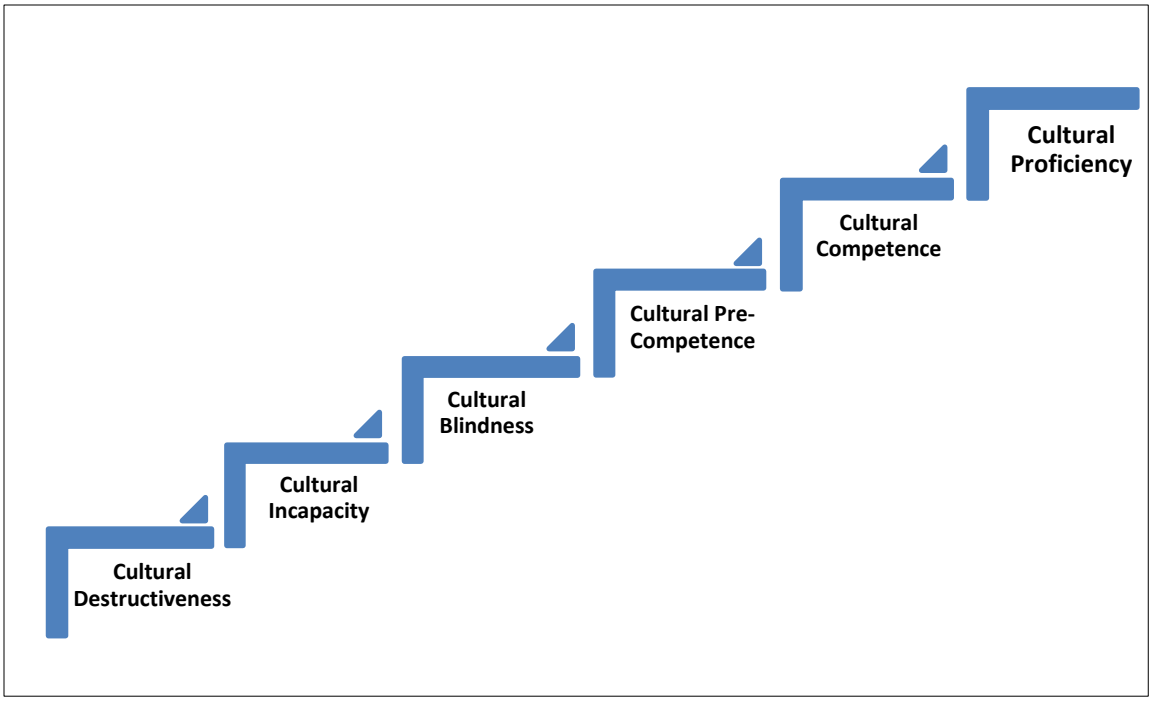

Figure 1 Process in the cultural competence continuum (16)

Organizational Cultural Competence

For individuals to become more culturally competent, the organizations or institutions with which they identify need to provide a structural framework that supports culturally competent practices (20). According to Chrisman (20), a culturally competent organization supports cultural competence that "characterizes individual members of the institution as well as the organization as a whole." Chrisman describes the major components of culturally competent organizations as the following:

- *Vision, mission, and goals that focus on both cultural and social diversity;*
- *Diversity workshops provided across the institution as part of continuing training, and using members of the organization as trainers;*
- *Managing diversity in the organization not only to hire, retain, and promote diversity of the organization, but also to ease individuals' passages within the organization, and;*
- *Enabling community partnerships* (20).

Furthermore, an organization that is culturally competent acknowledges and incorporates the importance of culture, cultural differences that affect the organizational dynamics, expansion of cultural knowledge, organizational self-assessment, and adaptation to meet the needs of culturally diverse members and those it serves (16).

These components of organizational cultural competence can be applied to both health care organizations and academic institutions (20). Health care delivery systems are continuously assessing cultural competence in their organizations (21-26). To date, cultural competence assessment in academia has focused predominantly on the curriculum component (29-32).

Therefore, it is helpful to understand the methods that have been utilized to assess organizational cultural competence in health care delivery systems as potential models for assessment within academic institutions.

Organizational Cultural Competence in Health Care Delivery Systems

Standards for Culturally and Linguistically Appropriate Services (CLAS)

In response to health disparities of minority groups in the US and the growing need of cultural competence in health care delivery, the US Department of Health and Human Services' (HHS) Office of Minority Health (OMH) created the CLAS standards for health delivery systems in 1999 (28). The OMH developed these standards to make health practices more culturally and linguistically accessible. The CLAS standards are defined as "the collective mandates, guidelines, and recommendations issued by the HHS OMH to inform, guide, and facilitate required and recommended practices related to culturally and linguistically appropriate health services" (28, p4). These CLAS standards apply to health care organizations. However, individual providers are encouraged to use these standards also. Though not a specific model for organizational cultural competence, the CLAS standards provide a framework for health care organizations to implement services that are responsive to cultural and linguistic needs of the growing diverse population.

The CLAS document consists of 14 standards that are divided into 3 themes: Culturally Competent Care, Language Access Services, and Organizational Supports for Cultural Competence (28). They are classified further into mandates, guidelines, and recommendations: CLAS mandates are standards that are required for recipients of federal funds; CLAS guidelines are those that are recommended by the OMH for adoption as mandates by Federal, State, and national accrediting agencies; and CLAS recommendations are suggested by the OMH for health care organizations to adopt voluntarily (28).

Operationalizing the CLAS Standards in Managed Care Organizations (MCOs)

In August 2003, the OMH released a report of a study conducted to examine the extent to which the CLAS standards were being implemented in MCOs (21). In addition, the project sought to identify the gaps in health care services by developing an assessment that would serve as measures of the CLAS components. Prior to the study, there were limited data collected on the nature and extent of culturally and linguistically appropriate services in health care. Thus, this study was the first attempt in the nation to assess CLAS provision in a segment of the US health care system. The purpose of the study was to address the following research questions:

- *What is the nature and extent of CLAS currently provided in MCOs?*
- *Does the provision of CLAS vary among MCOs? If so, how?*
- *What factors influence the provision or implementation of CLAS in MCOs?* (21, pg 1.8-9)

The three objectives of the study were to: collect data which would present a first look at the types of CLAS services provided at MCOs; provide a study framework based on the methods, measures, and results for assessing essential CLAS components; and educate study participants about their organizational CLAS practices. By participating in the assessment, health care professionals were able to examine their organizations' policies and practices in relation to the CLAS standards.

Because efforts to measure CLAS standards were limited, the research team was challenged to identify specific measures that would encompass *all* MCO services that address healthcare needs of diverse populations (21). Based on a literature review and examination of assessment tools, several characteristics and services were identified as appropriate and adequate to meet the specific needs of diverse populations. The key components, which were included in eight domains, provided the conceptual framework model for the study design and development of the study instruments (Table 1).

The domains identified were to provide a foundation for future studies and assessments of CLAS in all health care settings and not just limited to MCOs (21). Once the domains and key elements were developed, the next task was to develop questions and response options that reflect a broad range of CLAS practices. After examining the domains and the key elements it was found that three different perspectives were needed to describe CLAS practices within the MCO unit: that of the organization overall, staff, and members or participants (21).

Thus, a three-component survey instrument based on respondent type was developed to be administered within an MCO: a Senior Executive Telephone Interview Protocol to represent the organization as a whole; a Staffing Questionnaire; and a Membership Questionnaire. Staffing and membership respondents were selected by each participating organization's senior executive based on knowledge, function, responsibilities, and roles that suited the components of the staff- and members related questionnaires (21). Some domains were represented in more than one questionnaire based on the nature of the survey items (Table 2).

Sampling of respondents was obtained from the MCO directory maintained by the American Association of Health Plans (AAHP) (21). Respondents were able to return completed questionnaires by electronic mail or postage mail. The study's response rate was 30%: of the 288 MCOs invited, 77 MCOs participated, 32 were determined ineligible, and 179 either refused or failed to respond. Therefore, because of the low response rate to the mailed and electronic surveys, the planned statistical comparisons were not completed and the findings could not be generalized to the national population of MCOs (21).

However, the study did provide snapshots of CLAS services for those organizations that participated in the study. While this was the first analysis of its kind in the US, the assessment was not based on a cultural competence model; rather it was based on a literature review of essential CLAS services. Nonetheless, the study was important in that the instruments provided many types of activities and strategies to detail the CLAS standards and a framework for assessing CLAS components. In addition, findings were informative in that they provided an *initial* description of the nature and extent of CLAS services provided by participating MCOs (21). The study, however, was specific for assessing CLAS-related practices in MCOs and not health care institutions or academia.

Table 1 Domains of Culturally and Linguistically Appropriate Services (CLAS) standards and descriptions (21)

Domain	Name	Description
1	Organizational Governance	This domain measures the extent to which the organization is committed to addressing the needs of diverse populations based on its governing structures and bodies
2	CLAS Plans and Policies	Policies related to diversity and cultural competence are in place reflecting the commitment to provide quality health care for diverse populations
3	Patient Care	This domain includes characteristics of non-communication related care that address cultural barriers that result in patient compliance to prescribed regimens.
4	CLAS Quality Monitoring and Improvement (QMI)	This domain encompasses organization's processes and strategies to monitor and improve services that are provided to culturally and linguistically diverse populations.
5	Management Information Systems (MIS)	This domain is related to the QMI domain. The elements in this domain include data collection efforts. Information collected regarding the demographic characteristics of staff and service populations are managed and used to monitor and improve standards of care.
6	Staffing Patterns	This domain measures the level of diversity within the organization as well as efforts to promote, recruit, and retain a diverse staff. The characteristics of staff should reflect and represent the diversity of the population which the organization serves.
7	Staff Training and Development	This domain covers issues in regards to staff training in cultural competence, which includes instructional efforts that address diversity and staff reflection on their own beliefs and behaviors that affect delivery of services.
8	Communication Support	This domain examines language services within the organization, such as interpretation and translation services, as part of the linguistic appropriate services of CLAS standards.

Table 2 Components of CLAS assessment survey instrument based on respondent types (21)

Questionnaire Component	Survey Items	Domain(s)
Senior Executive Telephone Interview Protocol	The protocol included items related to organizational governance, CLAS-related corporate policies, and questions about CLAS-related quality monitoring and improvement efforts.	1,2,4
Staffing Questionnaire	Questionnaire included items related to staffing patterns, staff training, management information systems, patient assessment and treatment services, and questions about CLAS-related quality monitoring and improvement efforts.	3,4,5,6,7
Membership Questionnaire	Membership questionnaire items related to translation and interpretation services, management information systems, health care environment, and questions about CLAS-related quality monitoring and improvement efforts.	3,4,5,8

Operationalizing the CLAS Standards in Local Public Health Agencies (LPHAs)

The increase in the number of racial and ethnic minorities in the US has a profound impact on services delivered by LPHAs (22-23). Minorities have higher rates of poverty, lower rates of health insurance coverage, greater exposure to health risks, and limited access to health care (5,7-8,23). In addition to those risks, minority populations might have different views on health practices and difficulty communicating with the health care delivery system in the US (14,23). LHDs and LPHAs play an important role in the health care delivery system, as they offer services to individuals *and* health-related programs that focus on improving the community's health. Furthermore, LHDs and LPHAs are part of the overall health care system, and therefore have experienced rapid changes and been required to respond to the rapid growth of culturally and linguistically diverse populations (22-23).

In late 2003, the US HHS OMH released another report on a project entitled *Developing a Self-Assessment Tool for Culturally and Linguistically Appropriate Services in Local Public Health Agencies* (22). The objectives of the project were to develop an organizational assessment tool for LPHAs that provided sound measures of CLAS and an understanding of organizational CLAS practices of LPHAs. Thus, CLAS provisions in LPHAs increasingly have become more important. The OMH study reported that LPHAs are a safety net for racial and ethnic minorities, people who are uninsured and have low socioeconomic status, and other populations that face barriers to accessing quality health care (22). Therefore, it was important to assess the provision of CLAS practices in LPHAs.

The MCO study (21) previously performed by the HHS OMH served as the framework for the LPHA study (22). However, revisions were made to the eight MCO domains and survey items to meet the characteristics of LPHAs. For example, the term "Patient Care" in domain 3 of the MCO study was replaced with the term "Culturally Inclusive Health Care Environment and

Practices" to better capture the measurements of LPHAs. Furthermore, from an overall perspective, the unique and variable organizational structures of LPHAs dictate how they are managed and staffed. Specifically, LPHAs typically are under a state, county, or city jurisdiction, which dictates funding, including that for staff training and the types of services provided. Therefore, while the three MCO survey protocols served as the basis for the LPHA protocols, each was revised to reflect these differences. The assessment was designed so that LPHAs could examine their organizational policies and practices in relationship to examples of CLAS. Not only would LPHAs be able to monitor and improve their services, but also they would be able to develop policies and programs to meet the health needs of the populations served (22).

The goal of the project was to design an assessment tool and its corresponding protocols for collection of data on how the CLAS standards in LPHAs were provided. A pilot study was conducted to test the accuracy and appropriateness of the instruments. However, LPHAs were not actually assessed after the pilot study (22).

Organizational Cultural Competence in Mental Health Services

In the field of behavioral health, a two-phase project was conducted by Siegel and colleagues (24) to identify performance measures for assessment of organizational cultural competence and to provide steps for implementation of aspects of cultural competence. In Phase I a framework and performance measures were selected for assessing cultural competence in mental health systems. The identified conceptual framework and domains were based on a literature review of standards to meet the needs of diverse populations in health care and mental health services (24-25). The project's steering committee reviewed reports and papers by federal and state agencies to identify principles of cultural competence and activities required to create a culturally competent system (25). The six domains produced were: needs assessment; information exchange; services; human resources; policies and plans; and outcomes. In addition, Siegel and colleagues identified 52 descriptive factors of performance, across the six domains. Each factor included indicators, and with measures and data sources for each indicator. After expert panel deliberations they identified 52 factors, 163 indicators, and 231 measures spread across the 6 domains. These performance measures were intended for use as a tool to assess cultural competence of mental health organizations (25).

In Phase II of the project the number of performance measures were benchmarked and reduced to a manageable size (24). An expert panel rated each measure on its importance for implementation of cultural competence, feasibility for data collection, and the degree of its accuracy based on activities that were linked to each measure. The panel then utilized a Delphi-like procedure in which each panel member rated the individual performance measures and they participated in a group discussion of the ratings, which ultimately lead to a group consensus rating for each performance measure. Once the panel reached agreement on the ratings, the performance measures were reviewed against the CLAS standards. The final task of this phase was to benchmark the reduced measures, indicating a desirable level of performance. This was done by phone interviews of selected organizations identified previously as having best cultural competence practices (24).

The panel reduced the number of performance measures from 231 to 85, each of which indicated if a cultural competence practice or policy was in place or not (24). There were two survey instruments developed: one for the administrative level and one for the service entity level of mental health organizations. The resulting framework identified performance measures which

mental health organizations could use to evaluate their policies and practices and then to revise as appropriate to better serve their clients and patients through culturally competent policies and practices. Unfortunately, no assessment was conducted using the national study's results and products (24).

Organizational Cultural Competence Assessment Model in Health Care Delivery

In 2002 the Health Resources and Services Administration (HRSA) of the US Department of Health and Human Services along with the Lewin Group, Inc. sponsored a project to develop cultural competence indicators in health care delivery organizations (26). The objectives of the study were to create a framework to assess cultural competence specifically in health care delivery organizations, identify indicators, and assess the utility, feasibility and applicability of the framework and its indicators. In the process of developing the assessment tool the research team focused on the organizational level as opposed to the individual level of cultural competence. The stated reasoning behind this focus was that organizational cultural competence is essential in systematic patient-centered care that affects health outcomes (3,26). In addition, organizations support individual cultural competence development through their systems and policies (26-27).

The development of the assessment tool, which was referred to as the Assessment Profile, involved several processes. The initial framework and indicators were developed based on a literature review. Following feedback from an expert panel and key informants the framework and set of indicators were refined further. The Assessment Profile itself consists of three major components (Figure 2): 1) domains of cultural competence (Table 3); 2) focus areas within the domains, and 3) indicators relating to the focus areas (26).

The domains represent the construct of cultural competence, which should be evident in health care delivery organizations (26). Within the domains are focus areas, which characterize each domain and are more specific to examine for evidence of cultural competence. Within each domain and focus areas are indicators, which are observable and measurable characteristics of a culturally competent organization. The Profile is a framework tool to examine, demonstrate, and document cultural competence in organizations. Although the Profile has not been used to assess health care organizations, the tool can be useful to monitor performance, review quality and improvement activities, and evaluate cultural competence compliance according to standards or guidelines. Moreover, the Profile is specifically geared towards organizations involved in *direct delivery* of health care and services (26).

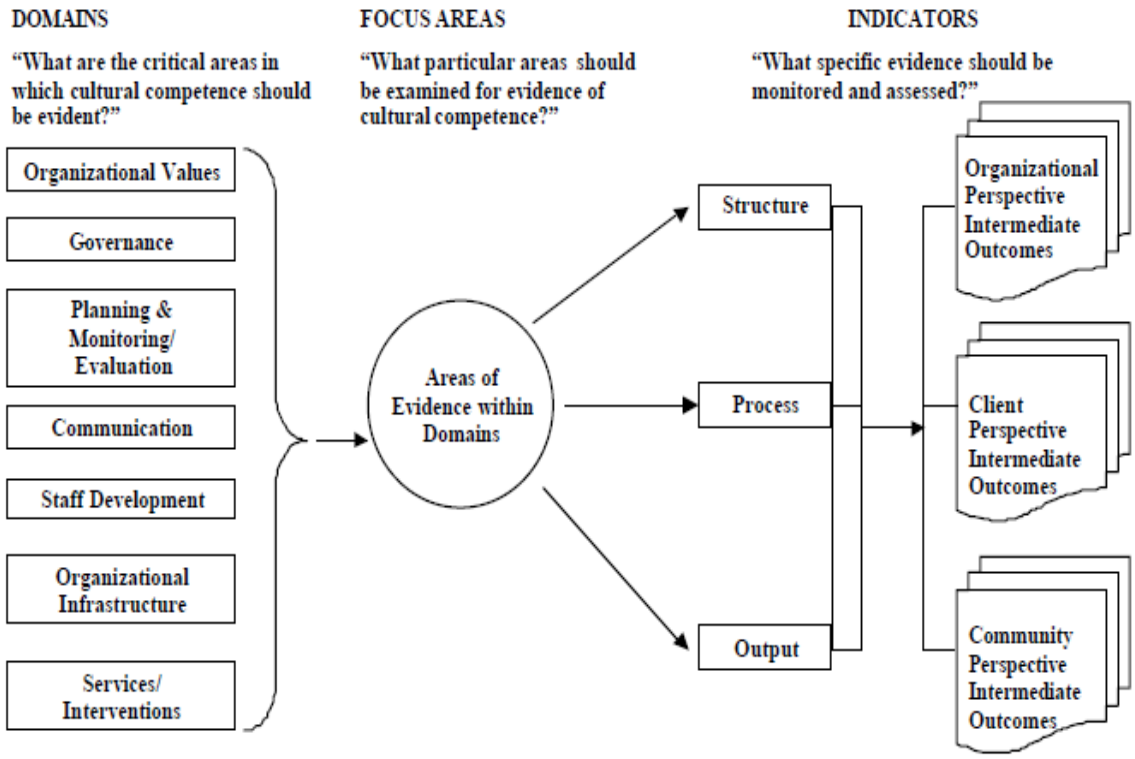

Figure 2 Components of the Health Resources and Services Administration Assessment Profile for Health Care Delivery Organizations (26)

Table 3 Health Resources and Services Administration domains and descriptions of the Assessment Profile for Health Care Delivery Organizations (26)

Domain	Description
Organizational Values	An organization's perspective and attitudes with respect to the worth and importance of cultural competence and its commitment to provide culturally competent care.
Governance	The goal-setting, policy-making, and other oversight vehicles an organization uses to help ensure the delivery of culturally competent care.
Planning and Monitoring/Evaluation	The mechanisms and processes used for: a) long- and short-term policy, and programmatic and operational cultural competence planning that is informed by external and internal consumers; and b) the systems and activities needed to proactively track and assess the organization's level of cultural competence.
Communication	The exchange of information between the organization/providers and clients/population, and internally among staff, in ways that promote cultural competence.
Staff Development	An organization's efforts to ensure staff and other service providers have the requisite attitudes, knowledge and skills for delivering culturally competent services.
Organizational Infrastructure	The organizational resources required to deliver or facilitate delivery of culturally competent services.
Services/Interventions	An organization's delivery or facilitation of clinical, public health, and health related services in a culturally competent manner.

Curricular Cultural Competence Models in Post-Secondary Health-Related Academic Units

Although the health care system plays a large role in the nation's health, other components of societal institutions play a critical role as well. For example, academic institutions contribute to the education and training of future health practitioners in various health fields, such as medicine, nursing, nutrition, public health, and occupational health (20). Cultural competence in academia is implemented in the curriculum focusing on providing culturally competent care and communicating effectively with diverse populations (31,41-42).

Medico Curricular Model of Cultural Competence for the Education and Training of Registered Dietitians

In 2011 Medico created a curricular model of cultural competence, which included competencies that are essential for the education and training of registered dietitians (29). A literature review revealed efforts had been made in several health disciplines to provide recommendations on the competencies needed to train and educate students entering the health care fields. However, dietitians work also in diverse environments in which food-related beliefs and behaviors affect health (29,42). Therefore, Medico's research study explored if the competencies identified in the literature were appropriate for dietetic education and training.

In this cross-sectional study a random sample of registered dietitians rated the essentiality of 73 proposed curricular competencies on a 7-point Likert-like scale (1 = Not a priority; 2 = Very low priority; 3 = Low priority; 4 = Medium priority; 5 = High priority; 6 = Very high priority; 7 = essential). Competencies from the Tool for Assessing Cultural Competence Training (TACCT) developed by the Association of American Medical Colleges (AAMC) (32) served as the foundation for the proposed competencies. Additional competencies were adapted from the California Endowment of recommended standards for cultural competence education for health professionals (43), the US HHS Health Resources and Services Administration (HRSA) curriculum guide for cultural and linguistic education (44), Harris-Davis and Haughton (45) model for multicultural nutrition counseling competencies, and other relevant literature.

Among the participants, 17.9% successfully completed the web-based survey (29). Respondents' characteristics were analyzed using descriptive statistics. The competencies were grouped into factors, or domains, using Principal Component Analysis (PCA) and Varimax rotation. Via reliability coefficient (Cronbach's α) competencies were selected. In addition, MANOVAs with Wilks' Lambda F test determined the relationships between respondents' characteristics and the factor ratings. From the analysis 7 curricular competency factors with 69 competencies emerged (29).

Factor 1, named "Communication and Relationships," focuses on cross-cultural interactions at the individual level, between providers and patients/clients in the health care setting, and colleagues, and/or staff (29). Community Collaboration, named for Factor 2, addresses improvement of community health status through community-level relations. Factor 3, or referred to as "Disparities and Diversity in Health Care," pertains to the histories, components, and functions of cultural differences in health care. Factor 4, or "Information Access, Analysis, and Use," applies to culturally competent resources that contribute to dietetic practices. Factor 5, named "Bias Management," addresses reducing bias at the individual level and in others. Specific to the field of dietetics is Factor 6, called "Food Environments," which addresses food

and nutrition. Finally, Factor 7, or "Models and Definitions," includes cultural competence concepts. The study revealed two significant findings. Respondents belonging to a minority group (non-Caucasian) ranked the competencies in "Community and Collaboration," "Information Access, Analysis, and Use," and "Models and Definitions" significantly higher than Caucasian respondents. In addition, respondents with greater than 5 years of experience working with diverse populations ranked "Communication and Relationships" higher than those with less than 5 years of experience (29).

Through the developed model (Figure 3), Medico identified competencies specific for dietetics curricula and training. Though the model is unique for the field of dietetics, some components are consistent with competencies in other disciplines, such that in the TACCT, which served as the foundation for the survey instrument (29, 32). However, the model only suggests the competencies that can be integrated into dietetic education and training. Missing from the model is how the competencies should be integrated within Didactic Programs in Dietetics (DPDs) and Dietetic Internships (DIs) (29) that are themselves culturally competent. Although the model addresses the attitude-awareness-knowledge-skills paradigm of cultural competence, it does not provide a framework in which students can progress within an academic organization. Nonetheless, the model can be applied to education and training programs to plan, implement, and evaluate their curricula for cultural competence in the fields of dietetics. Thus, the model supports existing objectives for cultural competence set by the Commission on Accreditation for Dietetic Education (29).

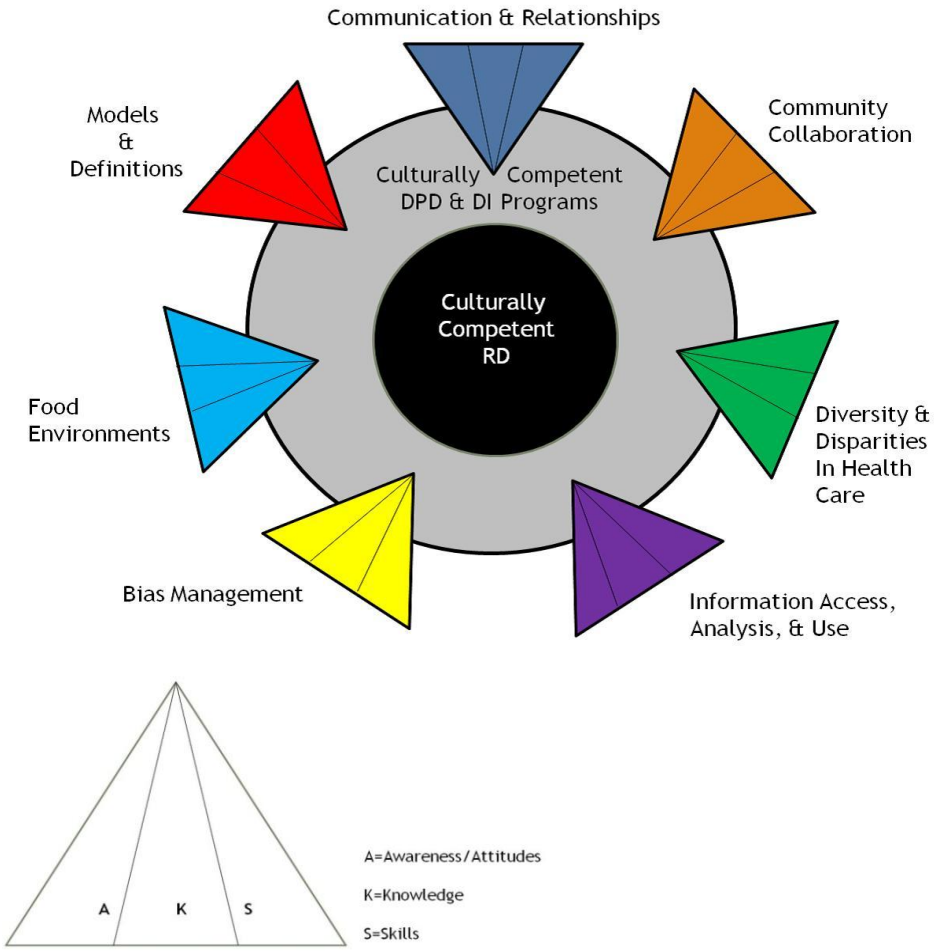

Figure 3 Medico Curricular Model of Cultural Competence for the Education and Training of Registered Dietitians (29)

The University of Pennsylvania School of Nursing Blueprint for Integration of Cultural Competence in the Curriculum (BICCC)

At the University of Pennsylvania, School of Nursing the need to implement cultural competence education was recognized as a means to better train future health care professionals (31). The framework for cultural competence integration in the curriculum was based on Kotter's *Eight Steps for Transformation of Your Organization* (46) and the concept that transformation within an organization requires organizational support and a transformation process (30). The process to transform the curriculum is consistent with Cross' continuum of cultural competence (16), as the identified process includes a series of action steps to integrate cultural competence through the nursing curriculum over a period of five years (Table 4) (30).

As part of the process used at Penn, the content of a 31-item instrument, the Blueprint for Integration of Cultural Competence in the Curriculum Questionnaire (BICCCQ), was developed and tested to assess cultural competence of the undergraduate and graduate nursing curricula (30-31). The instrument was developed because no valid and reliable instruments were available for nursing curricula (31). The resulting BICCCQ was based on the Tool for Assessing Cultural Competence Training (TACCT) developed by the Association of American Medical Colleges

(AAMC) (30-32). Items from the five domains of the TAACT were refined and other items were added as appropriate for nursing education, research and practice (31). The BICCCQ was implemented with faculty to assess whether or not each of the 31 activities was included in the curriculum. From this faculty survey administration, three domains of the BICCCQ emerged: knowledge, skill, and attitude.

The construct validity of the tool was tested by surveying students with the same instrument at the end of their first semester (freshmen, seniors, and graduate students) and asking for each of the 31 items whether or not it was included in their respective curricula (31). Statistical analysis revealed five factors, which were named Attitudes and Skills, Knowledge of Basics, Cultural Communication, Knowledge of Theory, and Knowledge of Key Concepts. In addition, statistically significant differences were found for each of the five factors when comparing responses of freshmen and seniors (31).

Table 4 Action steps to integrate cultural competence in undergraduate and graduate Nursing curricula at the University of Pennsylvania School of Nursing (30)

	Action
Step 1	Appointment of a Directory of Diversity Affairs
Step 2	Selection of the Master Teachers Taskforce on Cultural Diversity
Step 3	Implementation of an Intensive Faculty Development Program
Step 4	Dissemination of Information about Cultural Competence Education
Step 5	Use of Innovative Teaching Approaches
Step 6	Student Participation in Curriculum Activities
Step 7	Development of a Blueprint for Integration of Cultural Competence in the Curriculum (BICCC)
Step 8	Surveys of Faculty and Clinical Educators

The BICCCQ is an example of a tool that can be used to assess the content of cultural competence in health curricula (31). This is similar and consistent with the AAMC's assessment of the curriculum using the TACCT. The Blueprint includes 8 action steps which go beyond solely curriculum assessment, but it does not address a comprehensive approach to organizational cultural competence of academic nursing programs.

Organizational Cultural Competence in Academic Units

While curricular cultural competence is important for academic units, other factors also are important, such as research and administrative policies and practices. These factors affect how academic units function. The following is a literature review of organizational cultural competence in academic units.

Organizational Cultural Competence at the University of Tennessee-Knoxville Department of Nutrition

At the University of Tennessee's Department of Nutrition in Knoxville, an organizational cultural competence model for health-related academic units was developed. The expressed need for the model was for culturally competent academic units to better prepare graduates for work

with increasingly diverse populations (33-34). Based on the model, a self-assessment tool was developed to assist nutrition departments and health-related academic units in a process towards becoming more culturally competent (33). The intent of the self-assessment tool was to provide information to identify an organization's strengths and weaknesses. This then could be used to enhance the organization's cultural competence; thus, providing an academic environment that promotes cultural competence (33).

Development of the assessment tool began with finding the appropriate definition for organizational cultural competence of post-secondary academic units (33). At the time, while there were multiple definitions of organizational cultural competence for health care settings, there were none specifically for academic settings (34). Therefore, based on a literature review, a definition was adapted consistent with Cross' cultural competence continuum but specific for health-related academic settings (33-34). This definition was the foundation for a model (Figure 4) with 11 domains, each with criteria statements (34). The model was informed by the literature review and especially instruments from the Association of University Centers on Disabilities (AUCD) and the Ministry for Children and Families Vancouver Ethnocultural Advisory Committee (EAC) (34).

Krause Model for Organizational Cultural Competence in Health-related Post-secondary Academic Departments or Units

In 2009 Krause further refined the 2004 University of Tennessee, Knoxville Organizational Cultural Competence model using a qualitative approach for content validity (35). In the research study, Krause tested the relevance and importance of each domain and criteria statement of the model using an expert panel (n=9), similar to the approach used in developing the CLAS standards and the mental health organizations framework (24-25,28,35). The expert panelists had expertise working with diverse populations or projects related to cultural competence. Krause adapted the World Café method in which three groups of expert panelists convened via a series of teleconferences hosted by a project facilitator. The panelists reviewed the relevance of the initial 11 domains to organizational cultural competence. Next, they reviewed the initial 85 criteria statements and considered their importance and relevance to the model (35).

The UTK model underwent several revisions with this process, which resulted in a refined model with 6 domains unchanged, 4 domains with name modifications, and 1 domain subdivided into two domains with new content (35). The new model, referred to as the Krause Model for Organizational Cultural Competence in Academia (Figure 5), included 12 domains and 73 criteria statements within 6 categories (35). Key strengths of the Krause model are its testing for content validity specific for health-related academic units and its congruence with health services models. Nevertheless, it is limited by qualitative testing with an expert panel. Therefore, while it serves as a framework for post-secondary health-related academic units, the need for further testing was apparent. This led to the research by Dotson (36).

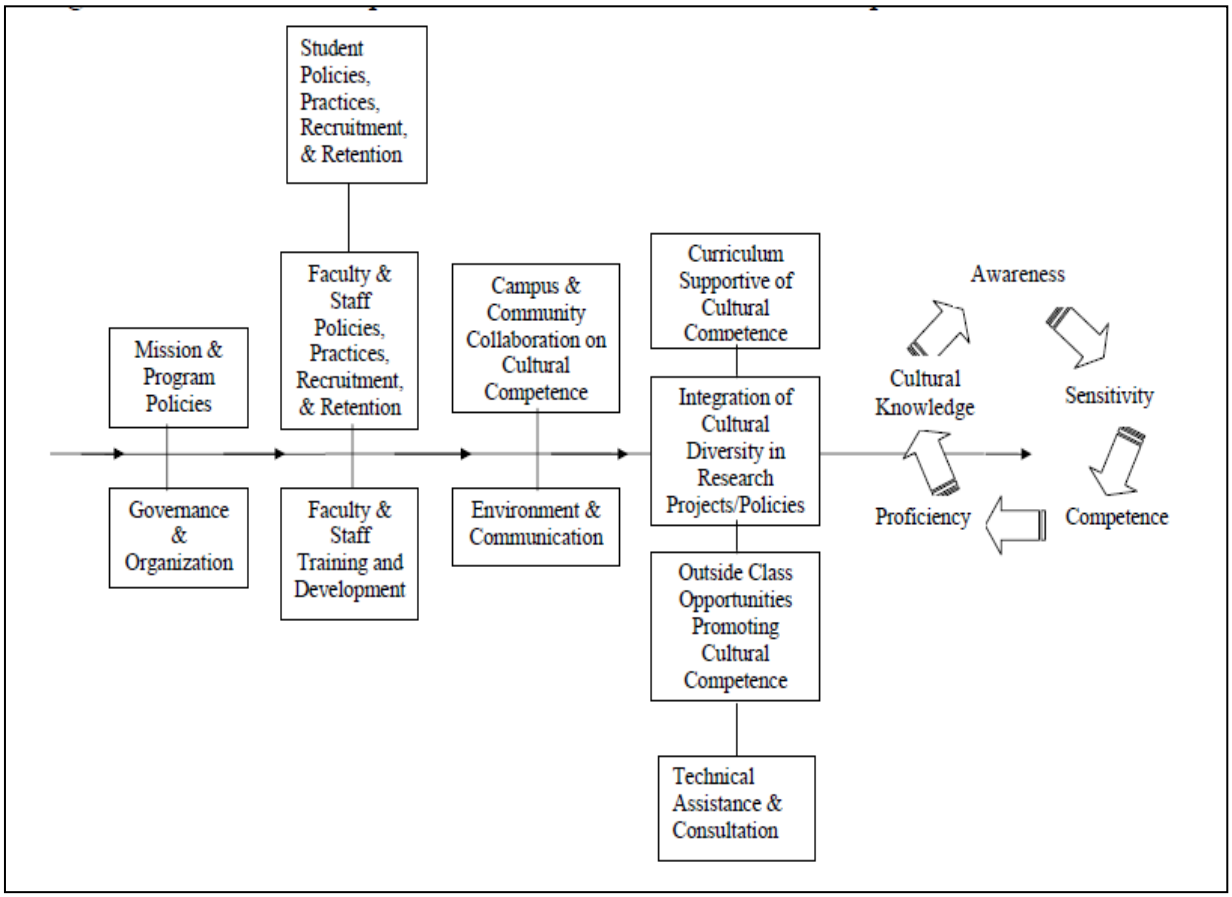

Figure 4 The University of Tennessee, Knoxville Department of Nutrition Model of Organizational Cultural Competence for Post-Secondary Health-Related Programs (34)

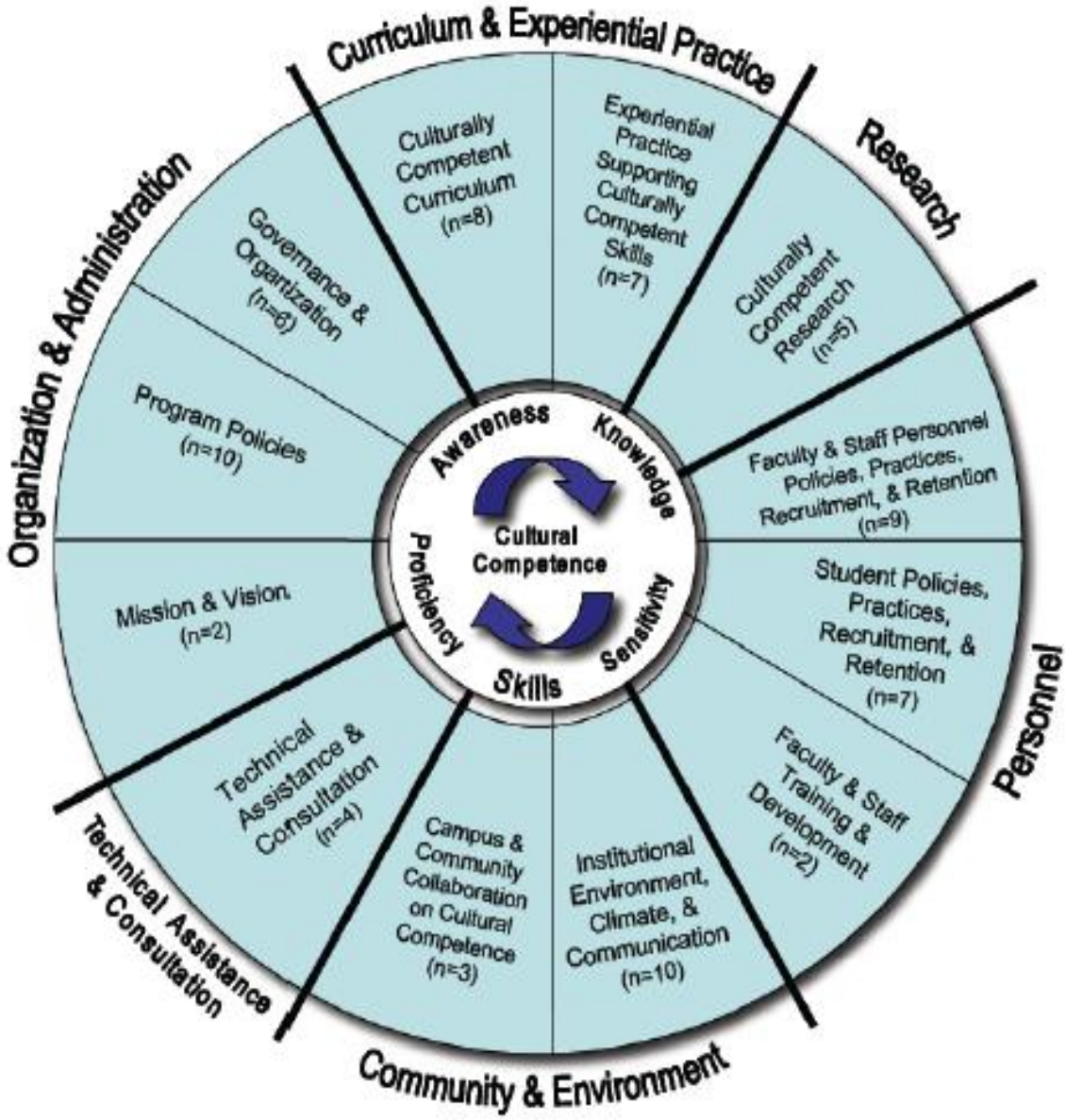

Figure 5 Krause Model for Organizational Cultural Competence in Health-related Post-secondary Academic Departments or Units (35)

Dotson Model for Organizational Cultural Competence in Health-related Post-secondary Academic Units.

Dotson tested the model developed by Krause quantitatively to determine the essentiality of the domains and criteria statements for organizational cultural competence in health-related post-secondary academic units (36). The research team asked tenure/tenured-tract faculty and administrators from medicine, nursing, nutrition, public health, and psychology about the essentiality of each criteria statement in the Krause model. Five health-related disciplines were chosen for this study to reflect their roles in primary, secondary, and tertiary prevention as well as physical and mental health. Because medicine, public health, and psychology disciplines include broad areas, family medicine, health behaviors or community health, and counseling psychology were chosen, respectively, to represent these broad areas. In addition, selection criteria were established for academic programs to be included in the study. One of these was listing as an accredited or member program from one of the following: Association of American Medical Colleges for family medicine; Council on Education for Public Health for public health; American Psychology Association for counseling psychology; National League for Nursing Accreditation Commission for nursing programs; and Association for Nutrition Departments and Programs for nutrition. In addition, a stratified random selection procedure was used to select a sample reflective of the overall population of program disciplines. From each of the programs randomly selected, the survey was administered to 1 administrator and 2 tenured/tenure-track faculty members (n=704) (36).

The web-based survey instrument included three components. The first section was verification of tenure/tenured-tract status to exclude respondents who were not within that category (36). The second section was 74-likert-like criteria statements from the Krause model of organizational cultural competence (1=Not at all essential; 2=Moderately unessential; 3=Slightly unessential; 4=Neither; 5=Slightly essential; 6=Moderately essential; 7=Essential; 8=No answer). The criteria statements were ordered sequentially as planning, implementation, and evaluation without designation of the respective domains or categories. In addition, the research team divided one criteria statement in the Krause model to two statements, which resulted in the 74-criteria statements for the survey instrument. Finally, the third section of the survey included items on demographics and organizational experience related to cultural competence (defined as having or developing a diversity plan, assessing its curriculum, and assessing students' cultural competence) (36).

Exploratory Principal Component Analysis (PCA) was used to categorize criteria statements into groups that aggregate because of their correlation with one another (36). In addition, VARIMAX rotation was used to determine the optimal number of factors. For each criteria statement, reliability coefficients (Cronbach α) were calculated. Multivariate analysis of variance (MANOVA) was used to determine if respondents' ratings for factor scores differed by demographic characteristics, work characteristics (administrator, faculty rank, and length of employment), and organizational cultural competence experience. MANOVA was used also to see if there were differences by academic disciplines for factor scores. Because of the lower response rates (19.2%) in 2 programs (counseling psychology and family medicine), disciplines were collapsed into 2 categories: 1) physical and mental health (counseling psychology, family medicine, and nursing) and 2) community health (nutrition and public health) (36).

Results of the statistical analysis condensed the Krause model to 4 domains and 63 criteria statements (36). The domains were: Organizational Accountability, Stakeholder Diversity, Access, and Communications. Organizational Accountability includes the settings, infrastructure, and resources of the academic unit to promote cultural competence. This includes monitoring and evaluating the unit's cultural competence and also the provision of cultural competence training for personnel and students' professional development. The domain Stakeholder Diversity applies to policies and procedures that support a diverse unit, which includes its governing body, personnel, and students. The Access domain addresses personnel, administrators, and student services ease of use. The last domain, Communications, addresses cultural competence as it relates to the academic unit's mission, vision, and values statements. In addition, it supports communication between the organizations, personnel, and students that fosters an environment that is culturally sensitive and inviting (36).

The Dotson model (Figure 6) is consistent with academic models known thus far, or the BICCC and Krause models (30-31, 35). In addition, the Dotson model is consistent with organizational cultural competence research studies in healthcare delivery systems. Krause tested the content validity of the UTK model and Dotson's research further validated the model by testing its construct validity. Similar to the Krause model, the Dotson model is unique for post-secondary health-related academic settings and addresses administrators, personnel, students, curriculum, and research in addition to the policies and infrastructure of such units (36). Thus, a model for organizational cultural competence in health-related post-secondary academic units was confirmed. This model can be used to assess the extent to which such academic units are applying cultural competence in their organizations.

Comparison of Scales Used for Organizational Cultural Competence Assessment

Although limited, organizational cultural competence assessments have been done in both health care and academic settings. This literature review identified organizational cultural competence assessments in MCOs (21), LPHAs (22), Mental Health Services (24-25), University of Pennsylvania School of Nursing (30-31), and the University of Tennessee's Department of Nutrition at Knoxville (33-34). In the MCO and LPHA studies, assessment tools were developed to measure the extent to which CLAS standards were being implemented (21-22). In both the MCO and LPHA survey instruments a categorical scale was used to reflect how an organization applied the standards towards organizational cultural competence. Survey questions represented a broad range of CLAS practices. Survey response options illustrated how CLAS practices can be implemented and respondents could choose multiple answers (21-22). In Mental Health Services, the assessment tool was based on a conceptual framework (24-25). The assessment tool included performance measures of cultural competence practices required to create a culturally competent mental health system. Response options to indicate if each measure was being implemented by an organization were "yes," "no," or "missing or not applicable" (24-25). Though the tool assessed the extent to which organizational cultural competence was being applied in Mental Health Services, it did not reflect an organization's progression towards cultural competence because of the categorical scale used.

The University of Pennsylvania School of Nursing developed the Blueprint as a tool to transform its nursing curriculum at both the undergraduate and graduate levels. In addition, the tool assessed other areas of cultural competence education through surveys of both faculty and students (30-31). Items on the survey instrument reflect information on cultural competence

Figure 6 Dotson Model of Organizational Cultural Competence of Post-Secondary Health-Related Academic Units (36)[†]

[†] The *n* in parenthesis indicates the number of criteria statements in each domain.

needed in undergraduate and graduate nursing curricula with a 3-point scale indicating the frequency with which information is included (0=Never; 1=Sometimes; 2=Quite often) (31). The tool itself assesses the curriculum only, as opposed to all organizational components of the academic unit.

The UTK model is the only model known thus far that has been used to assess organizational cultural competence in post-secondary health-related academia. The purpose of the self-assessment was to identify the strengths and weaknesses of the Department of Nutrition by using the model to enhance the Department's cultural competence (33-34). The self-assessment tool contained the model's 11 domains and criteria statements. An assessment team consisting of 11 faculty, staff, and undergraduate and graduate students reviewed archival data, such as by-laws and student handbooks, in relation to the criteria statements to evaluate the department. The criteria statements were evaluated using a 3-point quality scale: Commend, Meets the Standard, and Needs Improvement (33-34). In addition to archival data, the assessment team collected more information through surveys of faculty, staff, and students (34). Survey items were based on the model's criteria statements and included close-ended questions with a 4-point scale response format (1=Strongly disagree; 2=Disagree; 3=Agree; 4=Strongly agree). While both scales used in this self-assessment suggest some level of compliance to a standard, the 4-point scale indicates progression of actions towards improvement.

Scales that have been used to assess organizational cultural competence in health care settings, such that in MCOs, LPHAs, Mental Health Organizations, and University of Pennsylvania School of Nursing, are categorical scales, which do not reflect a process. The categorical scales used indicate whether organizations meet a certain standard or not (yes, no, don't know). A maturity model scale measures the extent to which organizations comply with a set of standards that describe their processes (37). The research study described in this thesis research used a scale that reflects a process that is based on a theoretical framework, or a maturity model.

Maturity Models

Carrying out an assessment of an organization's current state is a first step towards improvement (37-38). To assess organizational cultural competence of academic units, the capability maturity model can be used as a guiding framework to describe the units' process towards becoming culturally competent. The idea of maturity models was derived from the concept of process improvement in software development (37). Rather than concentrating on the product, the maturity model focuses on improving the process towards a better product or service, or how knowledge is managed (37-40). The extent to which an organization's process towards improvement is effective indicates the maturity of an organization's practices (37-38, 40). This idea of continuous improvement through organizational self-assessment is similar to the concept of total quality improvement in business management (40). The earliest maturity model based on quality management is Crosby's Quality Management Maturity Grid (QMMG) (37-38). This grid describes the behavior of an organization at different phases of maturity (38). There are several maturity models, including the knowledge management maturity model and the capability maturity model. What follows is a brief review of each and then comparison to support this thesis study's use of the capability model as its guiding framework.

Knowledge Management Maturity Models (KMMM)

Knowledge management maturity models reflect the needs of the members of the organization to have a common understanding of the organization's goals and objectives (39). This model

includes different levels of maturity as well; however, its main focus is knowledge sharing within the organization and its stakeholders. Each level of maturity reflects how well the knowledge or information is integrated and shared in different areas of the organization. In addition, the model characterizes maturity (or competency) by the organization's readiness to renew and share the knowledge with its members (or stakeholders) (37). Because knowledge within an organization can be broad and outcomes are not measurable, KMMM practices are not standardized. Thus, the effectiveness of the KMMM is based on the perception of the people in the organization who would benefit from it (37).

Capability Maturity Model (CMM)

The purpose of the capability maturity model is to describe an organization's maturity level through process evolution (38-40). Each level marks an improvement (or maturity) as the organization carries out its processes. Similar to the concept of QMMG, CMM describes the typical behavior of an organization at different maturity levels (37, 39). In addition, CMM measures the extent to which the organization complies with a specific set of standards for particular practices (37). This model focuses on developmental or business processes and covers product or service development (37, 40). Thus, the model guides organizations to select and prioritize process strategies that would lead to competency or improvement of a particular product or service (38-40).

Comparisons of KMMM and CMM

While both the CMM and KMM measure the processes within an organization, there are distinct differences between the two models. In CMM the processes of certain activities are well defined and have a known outcome due to the set of standards (37). However, there are no set standards in the KMM for the organization to comply, because knowledge can include any activity within the organization (37,39). Furthermore, the outcomes are not as measurable compared to those of the CMM (37). In addition, in KMM the effectiveness of the processes is according to the perception of those who benefit from the shared knowledge, while in CMM effectiveness is based on compliance to processes (37).

Capability Models and Cultural Competence in Academic Units

According to Cross and colleagues, cultural competence is a developmental process towards which organizations can strive (16). This is similar to the process evolution of CMM that reflects maturity: As organizations become more culturally competent they become more mature related to standards of cultural competence. The process of becoming culturally competent is described in the Cultural Competence Continuum model in which each level marks an improvement or new level of maturity (16). The Dotson Model (36) of organizational cultural competence includes a standard set of practices, or criteria statements, for health-related post-secondary academic units that practice organizational cultural competence. Thus, the criteria statements in the Dotson model are analogous to standard practices identified in studies based on the CMM. Similar to the CMM, as activities or practices are performed closer to standards and new practices are adapted, this collectively contributes to greater levels of maturity (40). Therefore, for the research described in this thesis the CMM was used as the framework to measure the extent to which post-secondary health-related academic units comply with the criteria statements in the Dotson Model.

Summary of Literature Review

Growing evidence shows persistent health disparities among minority groups in the US. As the nation becomes more racially and ethnically more diverse, there is a growing need to decrease the health disparity gap. One of the efforts to eliminate health disparities is to have culturally competent health professionals. For individuals to be culturally competent, the organization in which they belong must support a culturally competent environment. There are models of organizational cultural competence for health care delivery systems. These models have been used to assess the cultural competence of health-related organizations. Health-related academic units also serve as environments in which health professionals are trained to provide care. Therefore, academic units must be culturally competent to prepare students to care for culturally diverse groups as practitioners and health care professionals. To enhance the cultural competence of an organization, it is important to identify its strengths and weakness. There are few comprehensive models to describe cultural competence in health-related academic units. Further, prior to this thesis research there was one assessment of organizational cultural competence in academic units (33-34). This thesis research assessed and compared academic units from five health-related academic units to analyze the extent to which organizational cultural competencies was applied.

Research Questions

Since the initial assessment of the Department of Nutrition, the content and construct validity of the model were tested by Krause (35) and Dotson (36), respectively. Studies regarding organizational cultural competence assessment in academic settings thus far have concentrated on developing or testing conceptual models. This research study assessed the organizational cultural competence performance of health-related academic units from five disciplines using the Dotson Model, as it was the most recent comprehensive model for academic units to date.

Primary Question:

How are health-related post-secondary academic units applying the Dotson model overall and within domains toward organizational cultural competence?

Secondary Questions:

In applying the cultural competence model:

1. *Are there differences between academic units in how the model is applied?*
2. *Are there differences by academic units for how the model is applied based on organizational cultural competence experience (defined as having or planning for a diversity plan, curriculum assessment, and student evaluation)?*

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CHAPTER 3: CULTURAL COMPETENCE EXPERIENCE ENHANCES ORGANIZATIONAL CULTURAL COMPETENCE IN HEALTH-RELATED ACADEMIC UNITS

ABSTRACT

Objective: The study's objective was to describe how health-related post-secondary academic units are applying organizational cultural competence competencies to educate and train future health professionals based on the capability maturity model.

Methods: Administrators from community health (public health and nutrition) and physical and mental health (counseling psychology, family medicine, nursing) categories described, using a web-based survey with 6 email contacts, the extent to which each of 63 criteria statements from 4 domains was applied in their units using a Likert-like scale (1 = Strongly agree, 6 = Strongly disagree). Descriptive statistics as frequencies were used for categorical demographic data. For overall cultural competence, the total score (x±sd) based on the criteria statements, and domain scores (x±sd) were calculated. To test for differences in mean total and domain scores, analysis of variance (ANOVA) and multivariate analysis of variance (MANOVA) were used, respectively. Organizational cultural competence experience was described using 3 indicators: diversity planning, curriculum assessment for cultural competence and student assessment for cultural competence (yes or planning/developing, and no or and don't know). Organizational cultural competence experience was further categorized: Yes = programs that do all three organizational cultural competence experience indicators; No = programs that do less than all three of the indicators. MANOVA was used to test for differences in domain scores by organizational experience. Bonferroni adjustment post-hoc analyses determined which domains differed.

Results: Based on a 20% (85/425) response rate, overall cultural competence score was 286.1±48.6, or 76% of the maximum potential score. MANOVA revealed domain scores by categorized academic home were significant ($p = 0.013$). Overall cultural competence and domain scores by organizational experience was significantly higher for units that perform all three cultural competence experience indicators ($p = 0.005$ and $p = 0.028$, respectively). Bonferroni post-hoc analyses revealed the units scored higher within the organizational accountability ($p = 0.003$) and communication domains ($p = 0.004$).

Conclusion: Based on the overall score, units still have room for improvement as cultural competency is a process. Additionally, diversity planning, and curriculum and student assessments for cultural competence improves the maturity of academic units towards organizational cultural competency.

Introduction

The US population has become racially and ethnically more diverse with increasing growth of minorities and immigrants (1-2). Associated with this growth are higher rates of health disparities among ethnically and racially diverse populations (3-4). These health disparities can be attributed to cultural differences which affect health beliefs and experiences (5-8). With this growth there is a profound need to address the priorities of culturally and linguistically diverse groups (9). A strategy to address health disparities is to provide current and future health professionals with cultural competence training and education (7). Cross and colleagues (10) described cultural competence as a developmental process in which the continuum ranges from cultural destructiveness to cultural proficiency. Therefore, cultural competence is knowledge and skills that have no end point; rather it is a continuous active learning process (11-12). Cultural competence can be practiced at the individual and organizational levels. Individuals can receive cultural competence education and training through their agencies or organizations to which they belong. The organizations, then, need to provide a structural framework that supports culturally competent practices (13).

There have been efforts to address organizational cultural competence both in health care settings and academic settings. In health care settings, the US Department of Health and Human Services' (HHS) Office of Minority Health (OMH) created Standards for Culturally and Linguistically Appropriate Services (CLAS) (14). These standards were implemented in managed care organizations (MCOs) and local public health agencies (LPHAs) and tools were developed to assess the extent to which the standards were being applied (15-16). Similar organizational cultural competence models and assessment tools were developed for health care delivery by the Health Resources and Services Administration (HRSA) of the US HHS and for mental health services (17-19). Organizational cultural competence studies in academia have been limited in that the focus has been on integrating cultural competence in the curriculum, as in the Medico Curricular Model of Cultural Competence (20) and the Blueprint for Integration of Cultural Competence in the Curriculum (BICCC) of the University of Pennsylvania (21-22). In addition to the curriculum, efforts have been made by Krause (23) and, more recently, Dotson (24) to develop a model for organizational cultural competence specific for post-secondary health-related academic settings. This latter model consists of 4 domains and 63 criteria statements: organizational accountability, stakeholder diversity, access, and communication (24). Missing from the research to date is an assessment of organizational cultural competence of these units.

The objective of this study was to determine how health-related post-secondary academic units are applying the set of competencies from Dotson's validated model as a process toward becoming culturally competent. Five health-related academic disciplines (family medicine, counseling psychology nursing, nutrition, and public health) were selected because they are involved in primary, secondary, and tertiary prevention, as well as in physical and mental health. Family medicine and nursing were selected because of their roles in all prevention levels. Counseling psychology was selected for its prevention role in mental health. In addition, family medicine, nursing, counseling psychology, and nutrition play important roles in patient/client-to-provider communication; while nutrition and public health play important roles in population health, especially in primary prevention. Specifically, nutrition is involved in preventing and treating many diseases that are the leading causes of deaths in the US, such as cardiovascular

diseases. Public health is involved in health promotion and disease prevention through health education and health administration, among other approaches.

The Capability Maturity Model (CMM) (25-30), derived from a process improvement concept, was used as the guiding framework to describe health-related academic units' process towards cultural competence. The CMM describes an organization's maturity level, with each level marking an improvement. This idea is parallel to Cross' cultural competence continuum (10). To describe the extent to which academic units are becoming mature or culturally competent, a scale similar to that in CMM assessments was used to describe how the identified post-secondary health-related academic units are progressing toward cultural competence maturity.

Methods

Administrators of post-secondary health-related academic units were asked the extent to which the criteria statements from the Dotson model were being applied in their academic units. The study was approved by the University of Tennessee Institutional Review Board for the Protection of Human Subjects.

Selection and Exclusion Criteria of Programs

The population for this study was accredited or member programs of health-related academic units in family medicine, counseling psychology, nursing, nutrition, and public health (Table 5). The administrator from all programs meeting the selection criteria (see below) served as a proxy for the academic unit, as each is responsible for the academic unit's functions. Institutions were selected from accrediting bodies for counseling psychology, nursing, and public health, and member associations for family medicine and nutrition. All accredited programs were identified for each discipline. The disciplines were further categorized into Community Health (nutrition and public health) and Physical and Mental Health (family medicine, counseling psychology, and nursing). Nutrition and public health were categorized into Community Health for their role in primary prevention. Although family medicine, counseling psychology, and nursing are involved also in primary prevention, they are especially involved in direct care services.

Table 5 Accrediting bodies and membership association of selected health-related units

ACADEMIC HOME	ACCREDITING BODY OR MEMBERSHIP ORGANIZATION
Family Medicine	Association of American Medical Colleges
Counseling Psychology	American Psychology Association
Nursing	National League for Nursing Accrediting Commission
Nutrition	Association of Nutrition Departments and Programs
Public Health (community health, community health education or behavioral health)	Council on Education for Public Health

To be included in the study, programs or units met the following selection criteria:

1. A department, unit, college, or school had an accredited program in counseling psychology, nursing, or public health, or was a member of the identified membership organization for nutrition and family medicine (Table 5). For schools of public health, community health, community health education or behavioral health departments were selected.

2. The program's website was accessible. Programs were excluded if an error occurred while accessing the webpage.

3. The unit's administrator, defined as any of the following, was identified on the program's webpage:

    a. Department Head, Division Head, or Interim Head;
    b. Chair or Interim Chair;
    c. Dean, Assistant Dean, or Associate Dean of Nursing; and
    d. Director, Executive Director, Program Director, or Interim Director.

4. The unit administrator's e-mail address was available from the institution's web page, department home page, or from a directory listed elsewhere, but affiliated with the university or college.

Survey Development

The survey instrument was developed in 4 sections (Appendix B):

1. Survey information and consent to participate;

2. Verification of administrator status as defined in the selection criteria;

3. 63 Likert-like criteria statements of organizational cultural competence from Dotson's model to describe the extent to which the criteria are being applied in their organizations (1=strongly disagree; 2= moderately disagree; 3= slightly disagree; 4=slightly agree; 5=moderately agree; 6=strongly agree; 0=don't know); and

4. Demographic (gender, race, and ethnicity), academic experience (years of academic experience and in current administrative role), academic unit's organizational experience related to cultural competence (experience in an academic unit developing or with a diversity plan, assessing or planning to assess cultural competence of the curriculum, and assessing or planning to assess students' cultural competence), and presence of a student organization (3 responses as yes, no, and don't know).

The criteria statements were grouped according to Dotson's four domains (Organizational Accountability, Stakeholder Diversity, Access, and Communications); however, domain names were not indicated on the survey. In addition, criteria statements within each domain were ordered according to planning, implementation, and evaluation. Response options for the criteria statements were forced-choice, meaning that participants had to answer each question for forward movement in the survey instrument. As an incentive, participants were given an opportunity to enter in a drawing for one of three $100 gift cards to Amazon.com.

Survey Administration

The survey was pilot-tested at The University of Tennessee Knoxville with 10 faculty members across comparable academic units using IBM SPSS Data Collection Web Interviews (31) prior to administering the instrument live to administrators of the programs of interest. The purpose of piloting the survey was to test ease of access and movement through the survey instrument, and to determine appropriateness of the anchor scales, any problems, and length of time for survey completion. Based on the pilot, the instrument could be completed in about 15 minutes.

The survey was administered online and participants were recruited through a series of 6 contacts using a distribution email list to by-pass spam filters and with data collected over a period of 20 workdays (Appendix C). The initial e-mail served as advance notification that a survey about cultural competence in health-related academic settings would be sent in two work days. The second e-mail was the invitation to participate in the study and included the hyperlink to the survey instrument. Within three work days of the invitation e-mail, all participants received the first reminder e-mail to complete the survey. Six work days after the invitation e-mail, a second reminder e-mail was sent. Nine work days after the invitation e-mail, a third reminder email to participate was sent. To increase the participation rate, the last reminder email was sent five work days after the third reminder email. Responses were downloaded to an electronic database and were free of identifiers except for those who chose to participate in the gift card drawing. Identifiers were stripped from the database to maintain anonymity.

Data Analysis

Completed surveys were downloaded and analyzed using IBM SPSS 18.0 (32). Descriptive statistics as frequencies were used for categorical demographic data (gender, race, ethnicity), academic home (counseling psychology, family medicine, nursing, nutrition, and public health), and experience related to cultural competence (indicated as having, developing, not having/developing a diversity plan or don't know; assessing, planning, not assessing/planning to assess the curriculum or don't know; and assessing, planning, or not assessing/planning to assess students' cultural competence or don't know). Mean and standard deviation were calculated to describe the length of time as a faculty member and as administrator at the current academic home. Descriptive statistics were used to analyze overall cultural competence by computing the mean total score and standard deviation of the 63 criteria statements and mean domain scores of the 4 domains. Within domains, the median was computed for the individual criteria statements. To test for differences in total score by academic home, an analysis of variance (ANOVA) was used. To test for differences in the 4 domain scores by academic home, multivariate analysis of variance (MANOVA) was used.

In a post-hoc analysis, academic homes were categorized further into two groups: Community Health (public health and nutrition) and Physical and Mental Health (counseling psychology, family medicine, and nursing) due to the small *n* of respondents. Mean total organizational cultural competence score and mean domain scores were calculated for these categorized academic homes. Similarly, to test for differences in mean total scores by categorized academic homes, ANOVA was used; and to test for differences in the 4 domain scores by categorized academic homes MANOVA was used. Mean total scores and mean domain scores as percentages of maximum potential scores were computed also.

Description of organizational cultural competence experience was based on yes, no, planning/developing, or don't know to the 3 indicators: diversity plan, curriculum assessment for cultural competence, and students' cultural competence assessment. To test for organizational cultural competence experience, responses for each of the respective three indicators were combined as: 1) units who had or were developing a diversity plan, and those who were not or don't know; 2) units that assessed or were planning to assess their curriculum for cultural competence, and those who were not or don't know; and 3) units that assessed or were planning to assess for students' cultural competence, and those who were not or don't know. This created for each indicator, 3 types of organizational cultural competence experience: yes, no, don't know.

However, due to the small *n* of respondents for some levels (yes, no, don't know) of the indicators, a new variable was created to reflect overall organizational cultural competence experience: Yes (programs that perform or are planning/developing ALL of the three indicators) and No (programs that perform or are planning/developing anything less than all 3 indicators). MANOVA was used to test for differences in mean total scores by overall organizational cultural competence experience and categorized academic home. Because no significant difference was found by categorized academic home and no significant interaction was found between categorized academic home and overall organizational cultural competence experience, categorized academic home was dropped from further analyses.

MANOVA was used to determine differences by domain scores and overall organizational cultural competence experience. Bonferroni post-hoc analysis, where p was adjusted to 0.0125, was used to determine where the four domains differed.

Results

Demographic Characteristics

Of the total of 479 accredited or programs identified, 425 met the selection criteria and were sampled to have enough statistical power. The distribution of academic homes of the research program population was similar to that of the total program population (Table 6). The 5 email invitations to participate resulted in an overall response rate of 20% (n=85) (response rates of 5.2%, 5.9%, 2.8%, 2.8%, and 3.3% for each invitation round). The academic home for most respondents was public health (34.1%), followed by nursing (25.9%), nutrition (20%), family medicine (11.8%) and counseling psychology (8.2%). All respondents were administrators and most were Chairs or Interim Chairs of their academic unit (45.9%). Most were female (65.9%), White (81.2%), and Non-Hispanic (96.5%) (Table 7). More than half of academic units (54.1%) comprised the Community Health category and 45.9% of academic units comprised the Physical and Mental Health category.

Table 6 Program population and research program population meeting selection criteria

Academic Home	Total Program Population (n=479)		Research Program Population Meeting Selection Criteria (n = 425)	
	Percent	**No.**	**Percent**	**No.**
Family Medicine	26.9	129	23.3	99
Counseling Psychology	13.8	66	15.3	65
Nursing	20.0	96	20.9	89
Nutrition	14.0	67	14.8	63
Public Health	25.3	121	25.6	109
Total	**100**	**479**	**100**	**425**

Table 7 Demographic and work experience of survey respondents

Demographic and Work Experience	Respondents (n=85)	
	%	No.
Academic Home		
Family Medicine	11.8	10
Nursing	25.9	22
Nutrition	20.0	17
Psychology	8.2	7
Public Health	34.1	29
Categorized Academic Home[†]		
Community Health	54.1	46
Physical and Mental Health	45.9	39
Administrative Position		
Dean, Assistant Dean, or Associate Dean of Nursing	17.6	15
Chair or Interim Chair	45.9	39
Department Head, Interim Head, or Division Head	16.5	14
Director, Executive Director, Interim Director, or Program Director	20.0	17
Race		
White	81.2	69
Black, African American, or Negro	18.8	16
American Indian or Alaska Native	3.5	3
Asian/Pacific Islander[††]	2.4	2
Some other race	2.4	2
Hispanic, Latino, or Spanish Origin		
Non-Hispanic, Latino or Spanish Origin	96.5	82
Hispanic, Latino or Spanish Origin	1.2	1
Other	2.4	2
Gender		
Male	34.1	29
Female	65.9	56

[†] Community Health includes public health and nutrition; Physical and Mental Health includes family medicine, nursing, and counseling psychology.
[††] includes Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese, Other Asian, Native Hawaiian, Guamanian or Chamorro, Samoan, and Other Pacific Islander.

Table 8 Organizational cultural competence experience of respondents (n = 85)

Cultural Competence Experience	Stages of Development					
	Yes, Developing/ Planning		No		Don't know	
	%	No.	%	No.	%	No.
Curriculum assessment for cultural competence	82.3	70	14.1	12	3.5	3
Students' cultural competence assessment	65.9	56	21.2	18	12.9	11
Diversity plan	55.3	39	37.6	32	7.1	6

Organizational Cultural Competence Experience

The 3 items on organizational cultural competence experience of respondents' department or unit revealed that most had or were planning to assess the cultural competence of the curriculum (82%), while 66% did or were planning to assess students' cultural competence and 55% had or were developing a diversity plan (Table 8). Only 14% of the academic units represented did not plan on assessing the cultural competence of their curricula, while 21% did not plan on assessing students' cultural competence and 38% did not plan on developing a diversity plan. Almost 95% (94.1%) of respondents' academic homes or units had a student organization.

Application of Organizational Cultural Competence Model

The extent of the units' overall organizational cultural competence was assessed by the total score on the instrument (possible range = 0-378). The overall mean score across units was 286.1 (±48.6) with scores ranging from a low of 272.2 (±35.9) for Family Medicine to a high of 301.8 (±41.5) for Nursing (Table 9). Organizational cultural competence for the four domains of the model (organizational accountability, stakeholder diversity, access, and communication) was assessed by mean domain scores. For Organizational Accountability the mean domain score (maximum potential score=192) was 140.2 (±26.5) and for Stakeholder Diversity the mean domain score (maximum potential score=102) was 78.0 (±17.1). Mean scores for the Access (maximum potential score=54) and Communication (maximum potential score=30) domains were 44.6 (±8.3) and 23.3 (±5.5), respectively. The academic units scored 76% of the total maximum score overall. In relation to the mean domain scores, academic homes scored highest (83%) in the access domain followed by communication (77%), stakeholder diversity (76%), and organizational accountability (73%) domains.

There was no significant difference detected for total cultural competence score by academic home. MANOVA revealed that there was a significant difference in mean domain scores based on academic homes ($F = 1.77$; $p = 0.036$) and categorized academic home ($F = 3.41$; $p = 0.013$), but there were no detectable differences as to which domains differed (Table 9).

Table 9 Academic homes' application of organizational cultural competence based on domain scores and overall

Academic Home	Overall (Max = 378) *x* ± sd	Organizational Cultural Competence Domains†			
		Organizational Accountability (Max = 192) *x* ± sd	Stakeholder Diversity (Max = 102) *x* ± sd	Access (Max = 54) *x* ± sd	Communication (Max = 30) *x* ± sd
Family Medicine	272.2 ± 35.9	130.0 ± 21.5	77.2 ± 8.5	43.8 ± 8.0	21.2 ± 4.7
Nursing	301.8 ± 41.5	152.4 ± 20.6	80.9 ± 15.6	42.6 ± 9.3	25.9 ± 3.4
Nutrition	284.6 ± 50.0	135.7 ± 30.1	79.9 ± 16.8	46.7 ± 8.7	22.2 ± 6.3
Psychology	278.6 ± 54.4	139.0 ± 26.5	73.4 ± 17.4	41.9 ± 9.1	24.3 ± 5.4
Public Health	281.7 ± 54.9	137.5 ± 28.3	76.0 ± 20.5	45.8 ± 7.1	22.4 ± 6.0
Community Health	282.8 ± 52.6	136.9 ± 28.7	77.5 ± 19.1	46.1 ± 7.6	22.3 ± 6.0
Physical and Mental Health	290.1 ± 43.7	144.2 ± 23.5	78.6 ± 14.4	42.7 ± 8.7	24.4 ± 4.5
Total	**286.1 ± 48.6**	**140.2 ± 26.5**	**78.0 ± 17.1**	**44.6 ± 8.3**	**23.3 ± 5.5**
% Maximum Score	**76%**	**73%**	**76%**	**83%**	**77%**

† Significant difference in mean domain scores by academic home (F = 1.77; p = 0.036) and categorized academic home (F = 3.41; p = 0.013), but no detectable differences as which domains differed.

Application of organizational cultural competence based on organizational cultural competence experience

Organizational cultural competence was compared in relation to overall organizational cultural competence experience. Based on ANOVA, overall cultural competence score was significantly higher in units in the "Yes" category (having or developing a diversity plan, assessing or planning to assess the curriculum, and assessing or planning to assess students' cultural competence) compared to units in the "No" category ($F = 8.2$; $p = 0.005$). In addition, MANOVA revealed that there was a significant difference ($F = 2.9$; $p = 0.028$) within domains between units in the "Yes" category and units in the "No" category (Table 10). Follow up ANOVA with Bonferonni post-hoc analysis revealed that within the organizational accountability ($F = 9.7$; $p = 0.003$) and communication ($F = 9.0$; $p = 0.004$) domains, programs or units that do all three indicators of organizational cultural competence experience scored significantly higher than programs that do less than all three of the indicators.

Table 10 Organizational cultural competence domain scores based on cultural competence experience

Organizational cultural competence experience[‡]	*N*	**Organizational Cultural Competence Domain** [†]			
		Organizational Accountability[††]	Stakeholder Diversity	Access	Communication[††]
No	50	133.1 ± 26.2	74.6 ± 17.8	43.9 ± 8.6	21.9 ± 5.7
Yes	35	150.4 ± 23.8	82.9 ± 14.9	45.7 ± 7.8	25.3 ± 4.5
Total	**85**	**140.2 ± 26.5**	**78.0 ± 17.1**	**44.6 ± 8.3**	**23.3 ± 5.5**

[‡] Yes = programs that perform all three of organizational cultural competence experience indicators (having or developing a diversity plan, assessing or planning to assess the curriculum, and assessing or planning to assess students' cultural competence); No = programs that perform less than all three of the indicators.

[†] Significant difference within domains ($p = 0.028$)

[††] Significant difference based on Bonferroni post-hoc analysis within organizational accountability domain ($F = 9.7$; $p = 0.003$) and communication domain ($F = 9.0$; $p = 0.004$).

Discussion

Application of organizational cultural competence model

The purpose of this research was to explore how health-related post-secondary academic units are applying an organizational cultural competence model towards cultural competency. This is the first study known thus far to assess organizational cultural competence of health-related academic units using a validated model of organizational cultural competence (24). The University of Pennsylvania School of Nursing assessed its faculty and students using the BICCCQ (21-22). However, the assessment was specific to how cultural competence was integrated in their curriculum and did not address the cultural competence of the organization overall. In health care delivery systems, assessments were completed on the extent to which CLAS standards were applied in MCOs (15), LPHAs (16), and Mental Health Services (18-19). The CLAS standards are required for those health care organizations that receive federal funds. Therefore, it makes sense to assess to what extent the standards are being applied in these organizations. The criteria statements used in this study's assessment are standards for organizational cultural competence of health-related academic units (24); thus, going beyond the standards for curriculum alone. The results of this assessment may be used to guide accrediting bodies or membership associations when considering organizational cultural competence assessment as part of education and training requirements or recommendations.

Application of organizational cultural competence within domains

The Dotson model consists of 4 domains with 63 criteria statements: organizational accountability (32 criteria statements), stakeholder diversity (17 criteria statements, access (9 criteria statements), and communication (5 criteria statements) (24). While the data revealed significant differences for overall cultural competence by domains and academic home it could not be detected where the domains differed. Therefore, the rank-order of criteria statements within domains, based on median scores, helps to understand how the academic units are applying the domains collectively.

Access Domain

The Access domain addresses personnel, students, and administration accessibility to services as well as cultural competence planning in research. Units had the highest median scores for criteria statements related to student organizations and other student services. Highest scored criteria statements included: "The academic unit's student organizations are welcoming of students" and "Advising and mentoring services are available to students." This makes sense because most academic programs indicated that they have a student organization. On the other hand, units tended to score lower on criteria statements related to inclusivity of diverse populations in research projects. Lowest scoring criteria statements included: "The researchers include members of the racial and/or ethnic groups to be studied and/or individuals who have acquired knowledge and skills to work with subjects from those specific groups," and "The design, methods, and outcome measures of research projects are culturally appropriate for the targeted research population." These criteria statement refer to research-based activities. This finding raises a question about roles of the academic units, but the degree to which research was a unit priority or if the unit was housed in a research-based institution (high research activity or very high research activity) was not asked as defined by the Carnegie Classification of Institutions of Higher Education (33).

Communication Domain

The domain with the second highest percent of maximum score was Communication. This domain describes how cultural competence is conveyed within the academic department or unit in such a way that is culturally sensitive. This domain also addresses an environment that is culturally inviting and accommodating. Within this domain, units scored highest on the criteria statement related to how cultural competence is communicated in written documents: "A written statement of core values includes diversity and cultural competence." The remaining criteria statements had comparable median scores. Two criteria statements were related to how cultural competence is conveyed in the physical environment and the vision and mission statements. The last two are related to evaluations of administrators, faculty, and students and how those evaluations are communicated in such a way that is culturally sensitive. This is consistent with the finding that about a third of units did not or did not plan to assess students' cultural competence (or did not know). However, Communication is important as evidenced by inclusion in cultural competence models for both health care delivery and health-related academia (7,14,20, 23-24,34). In addition, it has been suggested that communication between individuals and providers impacts health outcomes (7,35). Therefore, it is important to address communication skills in these health-related academic units through education and systems policies (11).

Stakeholder Diversity Domain

This domain addresses policies related to the structural diversity of its members, such as the governing body, personnel, and students. Units scored higher on criteria statements related to the organization's demographic assessment and implementing diversity policies, which included:

> "Demographic data about the student population are evaluated to promote diversity."
>
> "The larger academic unit and its component parts implement an employment equity policy to eliminate unfair and discriminatory barriers to positions."

On the other hand, the lowest scored criteria statements were linked to faculty or administrators' involvement in developing and reviewing policies that address the organization's diversity:

> "The academic unit identifies an academic administrator or faculty member with delegated responsibility for initiatives and issues related to cultural competence and diversity."
>
> "Faculty, staff, administration, and board members participate in developing, reviewing, and revising employment equity and personnel policies and procedures."

Increasing the number of underrepresented minorities in health professions educational institutions may increase diversity of the health care workforce, which is linked with improved access (7,36). Thus, health professions' educational institutions have begun initiatives to increase organizational diversity (36). These efforts to increase the structural diversity of students require commitment from many aspects of the institutions and a systemic change. An example would be recognizing the value of diversity in written policy statements (36). However, analysis of criteria statements revealed that units were less likely to have a formal plan to address the issues related to the diversity of the academic unit. This is consistent with the finding that just under half of the units did not have or were not developing a diversity plan. These efforts to enhance

diversity in health-related academic institutions require a long-range diversity plan that should be evaluated continually for its effectiveness and modified where it is necessary (36).

Organizational Accountability Domain

Finally, health-related academic units scored the lowest percent of maximum potential score in the organizational accountability domain. This domain describes the organization's capacity to support cultural competence practices, including cultural competence training and professional development, and monitoring and evaluation of these activities (24). Criteria statements that address curriculum policies received the highest median score. The criteria statements within this domain that had the highest values included:

> "Undergraduate and graduate curricula establish the importance of providing relevant and accessible services to diverse populations."
>
> "Experiential practice sites provide students opportunities to work with diverse populations."
>
> "Curricula establish the health-related relevance of the cultural backgrounds of individuals and/or families that are served by health professionals."

The high median scores for these criteria statements are consistent with the finding that over 80% of academic units assessed or were planning to assess their curricula for cultural competence. According to some literature, the effectiveness of cultural competence education depends on the unit's commitment to development of content to match the organization's goals and policies (21-22,37). Furthermore, cultural competence education should be tailored to providing students with the necessary skills to meet the needs of a diverse community (37). An example of this may be providing opportunities for students to work with diverse groups at experiential practice sites.

On the other hand, units had lower median scores on criteria statements about organizational assessments and their organizations' external relationships, such as consultation and technical assistance. These criteria statements included:

> "Evaluation of technical assistance/consultation activities by recipients includes cultural competence."
>
> "The academic unit implements a policy to conduct regular organizational cultural competence self-assessments to identify priorities and gaps in practice."
>
> "Consultants are involved who have knowledge of an experience with the cultural group requesting the technical assistance and consultation."

The lower median scores may be explained by the paucity of standardized organizational cultural competence assessment tools for health-related academic units thus far, which is hopefully addressed in this research. In addition, organizational cultural competence of health-related academic units is a fairly new concept. Organizational cultural competence assessments tools are available for health-care delivery systems. For example, the U.S HHS developed the CLAS standards as a guiding framework for health care organizations to use to evaluate their services (14). The CLAS framework can be applied in some health-related academic units that have a

key role in the actual delivery of health care services consistent with internships, residencies, and other training modes. However, they are less applicable to academic units that do not deliver health care services. The Dotson model (24), which has components consistent with health care delivery models (HRSA) (34) and health-related academic models, such as the BICCC at the University of Pennsylvania School of Nursing (21-22), is unique to health-related academic settings in that it addresses all organizational aspects of these organizations. Therefore, the Dotson model is more appropriate to guide health-related academic departments or units as they plan for or strive to improve their organizational cultural competence. The findings on consultation and technical assistance are more difficult to understand, because the degree to which the units use outside consultants or technical assistance in relation to their academic programs was not asked in the survey.

Organizational cultural competence experience in relation to organizational cultural competence domains

The majority of units (82.3%) were assessing or planning to assess the curriculum for cultural competence. This is consistent with the literature that has focused on cultural competence curriculum assessment. Examples are Medico's study for the education and training of registered dietitians (20) and the University of Pennsylvania School of Nursing's BICCC (21). In the field of medicine, the American Association of Medical Colleges developed a tool to evaluate cultural competence of medical education curricula called the Tool for Assessing Cultural Competence Training (TAACT) (38). TAACT was created to support education standards related to cross cultural training set by the Liaison Committee on Medical Education, which oversees the accreditation of US and Canadian medical schools (38). Therefore, the finding may not be surprising. On the other hand, only just over half of health-related academic units had or were developing a diversity plan, which is consistent with the finding that the Organizational Accountability domain had the lowest percent maximum score. For an organization to become culturally competent requires a system-wide approach to cultural competence, because there is a commitment shared by all members of the organization and its stakeholders (13,37).

When organizational cultural competence was tested by overall organizational cultural competence experience, the significant difference found indicated that units that perform all three of the cultural competence indicators scored higher for organizational cultural competence than those that did not. Furthermore, there were significant differences within the Organizational Accountability and Communication domains. This indicates that units that perform all three of the organizational cultural competence experience indicators scored higher within these two domains than units that perform anything less than the three indicators (related to diversity planning, curriculum assessment, and student assessment for cultural competence). It has been posited that health-related academic units that assess for cultural competence and support cultural competence through written documents and policies are more likely to be culturally competent as evaluations monitor progress and adherence to standards (17,39-40). Thus, organizational self-evaluation helps determine areas of growth and allows organizations to create strategic plans, such as diversity plans.

The Communication domain focuses on how cultural competence is outlined in the respective organization's written documents, which includes the mission, vision, values, and goals. In addition, this domain outlines the organization's ability to provide culturally competent communication among the organization and its personnel and students (24). This is consistent

with the finding in which units that scored higher within the Communication domain were more likely to articulate cultural competence in their mission, vision, and goals statements (40). Also, the organization's success in communicating cultural competence practices to students can be seen in the learners' attitudes, knowledge, and skills, which can be evaluated through students' cultural competence as well as curricular evaluation (17).

Organizational cultural competence and maturity

The progress towards organizational cultural competency, or maturity, is a continuous learning process. The findings in this study demonstrated that there are areas within the model where academic units can improve. In terms of overall organizational cultural competence, health-related academic units scored 76% of the total maximum potential score, indicating that there is room for growth towards maturity. The CMM addresses the practices for software development and maintenance which improves organizations' processes towards better products (30). The Dotson model consists of practices, or criteria statements, to improve academic units towards organizational cultural competency. According to the CMM, for organizations to be mature they must implement a set of key process areas which cluster as key practice statements (29-30). The key processes and key practices are similar to Dotson's four domains and 63 criteria statements, respectively. Consistent with maturity models, implementation of these criteria statements contributes to effective practices, which indicate greater maturity of the organization. Accordingly, the more criteria statements implemented in the units, the more culturally competent the organization. Domain scores expressed as percent maximum score may help identify areas to focus for enhanced cultural competence, or maturity. In business measures, higher scores indicate better business performance (28). Thus, higher scores within the Dotson model indicate organizational cultural competence maturity. However, maturity is a lifecycle process that must be continually measured, monitored, and used to improve policies and practices (28).

Next Steps

For this research administrators of health-related academic units were asked the extent to which cultural competence is applied in their organization. In the US Services' HHS Office of Minority Health study that examined the extent to which the CLAS standards were being implemented, three different perspectives were included (15). Future assessments of organizational cultural competence in academic units should include more stakeholder types, such as faculty, staff, and students, to describe what the academic unit is like from their perspectives.

In addition, each criteria statement within the domains contributes the same value towards the total score. Because the Organizational Accountability domain has 32 criteria statements, it constitutes about 50% of the overall total cultural competence score. Further research could explore how criteria statements or domains contribute to the overall assessment score.

The idea of assessing organizational cultural competence in health related academic units using a maturity model is relatively new. While this study used a validated model to assess organizational cultural competence, how sensitive it is to detect changes over time is unknown. This is important, because assessments over time will describe maturity or progress towards organizational cultural competence. In addition, future research should investigate quantifying

Cross' cultural competence continuum by defining the range of scores for each stage and to link with the capability maturity model's stages of process development.

Limitations and Conclusion

There are limitations in this research study. First, the research study had a low response rate of 20%. About 265 respondents did not click the survey link, while 75 respondents started the survey but did not complete it. This low response rate resulted even after using a mass emailing method known to bypass spam filters and sending an additional, unplanned reminder email to recruit participants. However, this response rate is consistent with other research studies using the same method of web-based surveys (20,24,41). In addition, this rate is consistent with Dotson's response rate for administrators (20%) invited to participate in a related online survey (24). Finally, response bias is a possible limitation in this study, because cultural competence is a topic of sensitive nature (20). Those who are more interested in the topic may be more inclined to participate. In contrast to Dotson's study which asked administrators, faculty, and staff the essentiality of organizational cultural competence criteria statements, this study asked administrators to describe their units using the criteria statements. Conceivably, however, some administrators were asked to participate in both studies, leading to a response bias.

This study is the first study known thus far to assess the organizational cultural competence of health-related post-secondary academic units. The findings indicate these academic units can continue to progress towards cultural competence. Furthermore, there appears to be a strong relationship between high levels of organizational cultural competence and more structural indicators of cultural competence experience, or curriculum assessment and student assessment for cultural competence, and diversity planning. The tool used in this study may be useful for academic units to assess their organizational cultural competence.

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CHAPTER 4: CONCLUSION

Despite increasing numbers of racially and ethnically diverse minorities, health disparities still persist in these populations. Numerous efforts have been tried to eliminate health disparities among minority populations. One is to diversify the workforce, and much effort also has focused on providing cultural competence training and education to future and current health professionals. However, cultural competency is not knowledge and skills that have an end point; rather it is a continuous learning process. Though individual cultural competence of health professionals is important, equally or perhaps more important is organizational cultural competence, which supports the environments where individuals work and go to school. Efforts have been made to address organizational cultural competence in health care and academic settings. Additionally, organizational cultural competence assessments have been conducted in both health care organizations and academic institutions. However, cultural competence in health-related academia has focused primarily on the curriculum. Missing from the research is an organizational cultural competence assessment of health related academic units.

The purpose of this thesis research was to assess the organizational cultural competence performance of five health-related academic disciplines. The capability maturity model was used as a theoretical guiding framework to describe units' processes towards becoming culturally competent. The capability maturity model has been used to improve processes towards a better product or service. The primary research question was:

To what extent are health-related post-secondary academic units applying the Dotson model overall and within domains toward organizational cultural competence?

The research subquestions were:

1. *Are there differences between academic units in how the model is applied?*
2. *Are there differences by academic units for how the model is applied based on organizational cultural competence experience (defined as having or planning for a diversity plan, curriculum assessment, and student evaluation)?*

To answer these questions, a web-based survey was conducted in which randomly selected administrators from counseling psychology, family medicine, nursing, nutrition, and public health academic units used a Likert-like to describe the extent to which the 63 criteria statements of the Dotson model were applied in their respective unit. A series of six emails yielded a 20% response rate from the academic units. The overall mean score across units was 286.1 (±48.6). There was no difference in how academic homes applied the model. MANOVA for domain scores by categorized academic home was significant ($p = 0.013$), though it could not be detected where domains differed. Organizational cultural competence experience was described using 3 indicators: diversity planning, curriculum assessment for cultural competence and student assessment for cultural competence. Domain score by organizational experience was significant ($p = 0.028$). Bonferroni post-hoc analysis revealed that based on organizational cultural competence experience, there was a significant difference within the Organizational Accountability ($p = 0.003$) and Communication domains ($p = 0.004$). A positive organizational cultural competence experience—units that had or were developing a diversity plan, units that assessed or were planning to assess the curriculum for cultural competence, and units that assessed or were planning to assess students' cultural competence—scored significantly higher within these two domains.

This organizational cultural competence assessment revealed that units have room to grow or progress towards maturity. This assessment provides a baseline of cultural competency of health-related academic units for the five selected academic disciplines and can serve as a process monitor. It measures the extent to which standards, or criteria statements, are applied not only to train and educate professionals, but also to provide a culturally welcoming environment for stakeholders, which include faculty, staff, and students. Furthermore, diversity planning, curriculum assessment, and student assessment for cultural competence strengthens organizational cultural competence of health-related academic units.

APPENDICES

APPENDIX A: Criteria Statements from Dotson's Model for Organizational Cultural Competence in Post-secondary Health-related Academic Units

Organizational Accountability
The academic unit collaborates with other organizations, agencies, and/or academic units to develop and deliver culturally competent curricula, activities, and programs.
Fiscal resources are allocated for initial and ongoing cultural competence training.
Undergraduate and graduate curricula include cultural competence related training.
Undergraduate and graduate curricula establish the importance of providing relevant and accessible services to diverse population.
Campus, community, regional, and/or national resources that promote cultural competence are utilized as appropriate, e.g. curriculum development, organizational assessment, field experiences, etc.
Experiential practice sites are developed with input from individuals from diverse backgrounds.
A committee, task force, program area, or other entity is formed to develop cultural competence priorities arising out of the unit's organizational self-assessment.
Experiential practice sites model cultural competence.
Representatives from diverse backgrounds participate in classroom discussions and presentations (e.g., guest speakers, panel members, and discussions).
Faculty and staff participate in education, training, and research to increase their awareness, knowledge, and skills related to cultural competence.
Diverse field faculty (e.g., paid, volunteer, and field experience supervisors) and others (guest speakers) model cultural competence.
The academic unit's academic administrator is accountable for cultural competence and diversity of the unit.
The academic unit rewards faculty, staff, and student involvement with community, regional and/or national resources that promote cultural competence.
The academic unit's core values related to diversity influence how marketing and other program materials are developed.
A range of culturally appropriate educational resources and teaching techniques are used to address different learning styles of students.
Experiential practice sites provide students opportunities to work with diverse populations.

Curricula establish the health-related relevance of the cultural backgrounds of individuals and/or families that are served by health professionals.
The academic implements a policy to conduct regular organizational cultural competence self-assessments to identify priorities and gaps in practice.
Forms of communication (reports, appointment notices, telephone message greetings, etc.) are culturally competent for internal and external audiences.
Consultants are involved who have knowledge of an experience with the cultural group requesting the technical assistance and consultation.
Special needs and cultural differences are considered when interpreting student evaluation results and making recommendations for improvement.
Research priorities are established collaboratively with individuals from diverse backgrounds and communities.
Learning outcomes of students are evaluated to measure knowledge and skills related to cultural competence.
The curricula, materials, and classroom activities are systematically evaluated to determine how they incorporate cultural competence content.
Learning outcomes for outside class opportunities are evaluated to measure student knowledge and skills related to cultural competence.
Field faculty and others (e.g. guest speakers) are evaluated for modeling and facilitating cultural competence in their practice setting or learning activity.
Faculty and staff who use cultural skills in their work that is above and beyond their required job duties are recognized or rewarded.
Experiential sites and outside class learning opportunities are evaluated for providing students with opportunities to work with diverse populations.
Personnel performance evaluations include knowledge, skills, and ongoing professional development related to cultural competence.
Advising and mentoring services are systematically reviewed for methods, strategies, and ways to better sever students in culturally competent ways.
Technical assistance and consultation activities are routinely and systematically evaluated for methods, strategies, and ways of serving communities in culturally competent ways.
Evaluation of technical assistance/consultation activities by recipients includes cultural competence.

Stakeholder Diversity
Diverse participants serve on all advisory boards, committees, and councils to ensure wide cultural representation of the populations served.
Faculty, staff, administration, and board members participated in developing, reviewing, and revising employment equity and personnel policies and procedures.
Input is sought from faculty, staff, administration and board members in recruiting, hiring, and retaining individuals from diverse backgrounds.
Diversity goals and language about the diversity of faculty, staff, and communities served are included in the organizational policies and procedures.
The development of policies and procedures includes diverse faculty, staff, and others from outside the academic unit.
The development of strategic and program plans includes diverse faculty, staff, and others outside the academic as appropriate.
The academic unit identifies an academic administrator or faculty member with delegated responsibility for initiative and issues related to cultural competence and diversity.
Personnel recruitment, employment, and retention practices are implemented to achieve diversity and promote cultural competence.
The composition of academic unit (faculty, staff, students, boards, committees, and contractors) is diverse.
Academic units implement a plan for employment equity and diversity of personnel that includes policies and procedures for recruitment, employment, retention, and workforce composition assessment.
Student policies on recruitment, admission, and retention are implemented to achieve diversity.
The larger academic unit and its component parts implement an employment equity policy to eliminate unfair and discriminatory barriers to positions.
A policy is in place to address disparities in recruitment, admission, retention, and graduation rates of diverse students.
Position descriptions include skills related to cultural competence, as appropriate.
The academic unit implements policies that incorporate goals of eliminating barriers to access educational programs and services.
Demographic data about the student population are evaluated to promote diversity.
The review of policies and procedures includes diverse faculty, staff, and others from outside the academic unit.

Access
The impact of culture on the health-related behaviors of individuals, families, and communities is considered in all phases of research.
Policies and procedures are clearly communicated to faculty and staff.
Advising and mentoring services are available to all students.
All aspects of the physical environment are accessible.
Research projects include subjects from diverse backgrounds representative of the targeted research population.
The academic unit's student organizations are welcoming of students.
When providing technical assistance and consultation in communities, input from members reflecting the diverse cultural make-up of these communities is sought and utilized.
The researchers include members of the racial and/or ethnic groups to be studied and/or individuals who have acquired knowledge and skills to work with subjects from those specific groups.
The design, methods, and outcome measures of research projects are culturally appropriate for the targeted research population
Communications
A written statement of core values includes diversity and cultural competence.
Cultural competence is included in the mission and vision statements.
The physical environment portrays diverse communities through visual images, such as pictures, posters, and signage.
Supervisors communicate evaluation of student's performance being sensitive to cultural differences.
Administrators communicate evaluations of faculty and staff performance being sensitive to cultural differences.

APPENDIX B: Online Survey of Organizational Cultural Competence Assessment of Health-related Post-secondary Academic Units

Your participation in this organizational cultural competence assessment of post-secondary academic units is very important!

Purpose of Study

The purpose of this study is to understand what post-secondary health-related academic units are doing in relation to organizational cultural competence. You are being asked to complete this survey as an administrator of such a unit. Our findings will be submitted for publication, so that what we learn can be shared to promote cultural competence.

Participation

You have been selected to participate in this study because you are an administrator of a post-secondary health-related academic unit. Participation involves completing an online survey for which the anticipated risks of harm are no greater than risks encountered in daily life, and participation is strictly voluntary; there are no penalties for refusal to participate or for withdrawal at any time. We know how valuable your time is! To compensate you for your time, upon completion of the survey you will have the option to enter a random drawing for one of three $100 gift cards from Amazon.com.

Survey Instrument

The survey instrument consists of two parts: 1) 63 activities related to organizational cultural competence asked on a scale (strongly disagree, moderately disagree, slightly disagree, slightly agree, moderately agree, strongly agree, and don't know) and 2) 9 questions to describe respondents and their academic units' experiences related to cultural competence. There are no open-ended questions, although there is an option to provide any comments at the conclusion of the conclusion of the survey. The estimated time complete the survey is 15 minutes.

Confidentiality

All information gathered for this study is anonymous and will remain strictly confidential. Data obtained will be presented as aggregates. Neither individuals nor programs will be identified and no reference will be made that could link you to the study. The data will be stored securely on a University server. Any information you provide for the incentive drawing will not be linked to your responses.

Completion of the survey constitutes consent to participate and for researchers to use the information given.

If you have questions, please contact us.

Thank you,

Febi Pangloli
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Betsy Haughton, EdD, RD, LDN
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Phone: (865)974-6267

Survey questions:

Currently, what is your administrative position within your department?

- Dean, Assistant Dean, or Associate Dean of Nursing
- Chair or Interim Chair
- Department Head, Interim Head, or Division Head
- Director, Executive Director, Interim Director, or Program Director
- None of the above

[Note: If participants answer "none of the above" to this question, the following message will be displayed: "Thank you for your interest in participating in this study. However, we are only surveying administrators of academic units. Thank you for your time."]

What department or unit is your academic home? Please select one.

- Family Medicine
- Nursing
- Nutrition
- Psychology
- Public Health

Instructions:

What follows are activities related to organizational cultural competence post-secondary health-related academic units.

A health-related academic unit is an organization that is an accredited post-secondary academic program, department, school, or college.

Cultural competence is defined as "*a set of congruent behaviors, attitudes, and policies that come together in a system, agency, or among professionals and enable that system, agency or those professionals to work effectively in cross-cultural situations*" (Cross, 1989).

Please think about how well each activity describes your academic unit or program. Indicate your level of agreement or disagreement using the scale provided.

You will not be able to save and return to complete the survey. Please use the "previous" and "next" buttons provided to navigate through the instruments. Please do not use your cursor arrows or buttons on your web browser. All items must be answered before moving forward in the survey.

Thank you!

How well does each activity describe your academic program or unit?

Academic Unit's Activities	**Strongly Disagree**	**Moderately Disagree**	**Slightly Disagree**	**Slightly Agree**	**Moderately Agree**	**Strongly Agree**	**I don't know**
1. The academic unit collaborates with other organizations, agencies, and/or academic units to develop and deliver culturally competent curricula, activities, and programs	1	2	3	4	5	6	0
2. Fiscal resources are allocated for initial and ongoing cultural competence training	1	2	3	4	5	6	0
3. Undergraduate and graduate curricula include cultural competence related training	1	2	3	4	5	6	0
4. Undergraduate and graduate curricula establish the importance of providing relevant and accessible services to diverse population	1	2	3	4	5	6	0
5. Campus, community, regional, and/or national resources that promote cultural competence are utilized as appropriate, e.g. curriculum development, organizational assessment, field experiences, etc.	1	2	3	4	5	6	0
6. Experiential practice sites are developed with input from individuals from diverse backgrounds	1	2	3	4	5	6	0
7. A committee, task force, program area, or other entity is formed to develop cultural competence priorities arising out of the unit's organizational self-assessment	1	2	3	4	5	6	0
8. Experiential practice sites model cultural competence	1	2	3	4	5	6	0
9. Representatives from diverse backgrounds participate in classroom discussions and presentations (e.g., guest speakers, panel members, and discussions)	1	2	3	4	5	6	0

10. Faculty and staff participate in education, training, and research to increase their awareness, knowledge, and skills related to cultural competence	1	2	3	4	5	6	0
11. Diverse field faculty (e.g., paid, volunteer, and field experience supervisors) and others (e.g. guest speakers) model cultural competence	1	2	3	4	5	6	0
12. The academic unit's academic administrator is accountable for cultural competence and diversity of the unit	1	2	3	4	5	6	0
13. The academic unit rewards faculty, staff, and student involvement with community, regional and/or national resources that promote cultural competence	1	2	3	4	5	6	0
14. The academic unit's core values related to diversity influence how marketing and other program materials are developed	1	2	3	4	5	6	0
15. A range of culturally appropriate educational resources and teaching techniques are used to address different learning styles of students	1	2	3	4	5	6	0
16. Experiential practice sites provide students opportunities to work with diverse populations	1	2	3	4	5	6	0
17. Curricula establish the health-related relevance of the cultural backgrounds of individuals and/or families that are served by health professionals	1	2	3	4	5	6	0
18. The academic unit implements a policy to conduct regular organizational cultural competence self-assessments to identify priorities and gaps in practice.	1	2	3	4	5	6	0
19. Forms of communication (reports, appointment notices, telephone message greetings, etc.) are culturally competent for internal and external audiences	1	2	3	4	5	6	0
20. Consultants are involved who have knowledge of an experience with the cultural group requesting the technical assistance and consultation	1	2	3	4	5	6	0

21. Special needs and cultural differences are considered when interpreting student evaluation results and making recommendations for improvement	1	2	3	4	5	6	0
22. Research priorities are established collaboratively with individuals from diverse backgrounds and communities	1	2	3	4	5	6	0
23. Learning outcomes of students are evaluated to measure knowledge and skills related to cultural competence	1	2	3	4	5	6	0
24. The curricula, materials, and classroom activities are systematically evaluated to determine how they incorporate cultural competence content	1	2	3	4	5	6	0
25. Learning outcomes for outside class opportunities are evaluated to measure student knowledge and skills related to cultural competence	1	2	3	4	5	6	0
26. Field faculty and others (e.g. guest speakers) are evaluated for modeling and facilitating cultural competence in their practice setting or learning activity	1	2	3	4	5	6	0
27. Faculty and staff who use cultural skills in their work that is above and beyond their required job duties are recognized or rewarded	1	2	3	4	5	6	0
28. Experiential sites and outside class learning opportunities are evaluated for providing students with opportunities to work with diverse populations	1	2	3	4	5	6	0
29. Personnel performance evaluations include knowledge, skills, and ongoing professional development related to cultural competence	1	2	3	4	5	6	0
30. Advising and mentoring services are systematically reviewed for methods, strategies, and ways to better sever students in culturally competent ways	1	2	3	4	5	6	0
31. Technical assistance and consultation activities are routinely and systematically evaluated for methods, strategies, and ways of serving communities in culturally competent ways	1	2	3	4	5	6	0

32. Evaluation of technical assistance/consultation activities by recipients includes cultural competence	1	2	3	4	5	6	0
33. Diverse participants serve on all advisory boards, committees, and councils to ensure wide cultural representation of the populations served	1	2	3	4	5	6	0
34. Faculty, staff, administration, and board members participated in developing, reviewing, and revising employment equity and personnel policies and procedures	1	2	3	4	5	6	0
35. Input is sought from faculty, staff, administration and board members in recruiting, hiring, and retaining individuals from diverse backgrounds	1	2	3	4	5	6	0
36. Diversity goals and language about the diversity of faculty, staff, and communities served are included in the organizational policies and procedures	1	2	3	4	5	6	0
37. The development of policies and procedures includes diverse faculty, staff, and others from outside the academic unit	1	2	3	4	5	6	0
38. The development of strategic and program plans includes diverse faculty, staff, and others outside the academic as appropriate	1	2	3	4	5	6	0
39. The academic unit identifies an academic administrator or faculty member with delegated responsibility for initiative and issues related to cultural competence and diversity	1	2	3	4	5	6	0
40. Personnel recruitment, employment, and retention practices are implemented to achieve diversity and promote cultural competence	1	2	3	4	5	6	0
41. The composition of academic unit (faculty, staff, students, boards, committees, and contractors) is diverse	1	2	3	4	5	6	0

42. Academic units implement a plan for employment equity and diversity of personnel that includes policies and procedures for recruitment, employment, retention, and workforce composition assessment	1	2	3	4	5	6	0
43. Student policies on recruitment, admission, and retention are implemented to achieve diversity	1	2	3	4	5	6	0
44. The larger academic unit and its component parts implement an employment equity policy to eliminate unfair and discriminatory barriers to positions	1	2	3	4	5	6	0
45. A policy is in place to address disparities in recruitment, admission, retention, and graduation rates of diverse students	1	2	3	4	5	6	0
46. Position descriptions include skills related to cultural competence, as appropriate	1	2	3	4	5	6	0
47. The academic unit implements policies that incorporate goals of eliminating barriers to access educational programs and services	1	2	3	4	5	6	0
48. Demographic data about the student population are evaluated to promote diversity	1	2	3	4	5	6	0
49. The review of policies and procedures includes diverse faculty, staff, and others from outside the academic unit	1	2	3	4	5	6	0
50. The impact of culture on the health-related behaviors of individuals, families, and communities is considered in all phases of research	1	2	3	4	5	6	0
51. Policies and procedures are clearly communicated to faculty and staff	1	2	3	4	5	6	0
52. Advising and mentoring services are available to all students	1	2	3	4	5	6	0
53. All aspects of the physical environment are accessible	1	2	3	4	5	6	0

54. Research projects include subjects from diverse backgrounds representative of the targeted research population	1	2	3	4	5	6	0
55. The academic unit's student organizations are welcoming of students	1	2	3	4	5	6	0
56. When providing technical assistance and consultation in communities, input from members reflecting the diverse cultural make-up of these communities is sought and utilized	1	2	3	4	5	6	0
57. The researchers include members of the racial and/or ethnic groups to be studied and/or individuals who have acquired knowledge and skills to work with subjects from those specific groups	1	2	3	4	5	6	0
58. The design, methods, and outcome measures of research projects are culturally appropriate for the targeted research population	1	2	3	4	5	6	0
59. A written statement of core values includes diversity and cultural competence	1	2	3	4	5	6	0
60. Cultural competence is included in the mission and vision statements	1	2	3	4	5	6	0
61. The physical environment portrays diverse communities through visual images, such as pictures, posters, and signage	1	2	3	4	5	6	0
62. Supervisors communicate evaluation of student's performance being sensitive to cultural differences	1	2	3	4	5	6	0
63. Administrators communicate evaluations of faculty and staff performance being sensitive to cultural differences	1	2	3	4	5	6	0

Instructions: We would like to know about the participants in our study. Please answer the following questions about yourself and your academic unit.

How many years have you been a faculty member and/or administrator within your current department?

_____

How many years have you been in your current administrative position?

_____

What is your gender?

- Male
- Female
- Other

What is your race? Mark all that apply?

- White
- Black, African American, or Negro
- American Indian or Alaska Native
- Asian Indian
- Chinese
- Filipino
- Japanese
- Korean
- Vietnamese
- Other Asian
- Native Hawaiian
- Guamanian or Chamorro
- Samoan
- Other Pacific Islander
- Some other race

Are you of Hispanic, Latino or Spanish Origin?

- No, not of Hispanic, Latino or Spanish Origin
- Yes, Mexican, Mexican American, Chicano
- Yes, Puerto Rican
- Yes, Cuban
- Yes, Other
- No answer

Please indicate your experience related to cultural competence:

1. **Does your department or unit have a diversity or cultural competence plan?**
    - Yes
    - No
    - Don't know

[If participants answer "yes" to the question, they will be routed to the third question.]

2. **Is your department or unit developing a diversity or cultural competence plan?**
    - Yes
    - No
    - Don't know

3. **Has your department or unit assessed the curriculum for cultural competence?**
    - Yes
    - No
    - Don't know

[If participants answer "yes" to the question, they will be routed to the fifth question.]

4. **Is your department or unit planning to assess the curriculum for cultural competence?**
    - Yes
    - No
    - Don't know

5. **Has your department or unit assessed students' cultural competence?**
    - Yes
    - No
    - Don't know

[If participants answer "yes" to the question, they will be routed to the seventh question.]

6. **Is your department or unit planning to assess students' cultural competence?**
    - Yes
    - No
    - Don't know

7. **Does your department unit have a student organization?**
    - Yes
    - No
    - Don't know

Additional comments (optional):

If you wish to enter for the drawing to win one of 3 $100 gift cards from Amazon.com, please enter your name, email address, and address below. These will be used only to contact the winners and will not be used in conjunction with the data.

APPENDIX C: Contact Emails to Participants

Email 1 Subject Line: Research study of cultural competence assessment of academic units

Greetings!

You have been selected to participate in a survey conducted at the University of Tennessee's Public Health Nutrition Program on organizational cultural competence of health-related post-secondary academic units. Your participation is important to help us understand how future health professionals are being prepared to address the needs of our diverse population.
This email serves as an advance notification of the invitation to participate that you will receive by email within the next few days. Please watch your inbox for this opportunity! Upon completion of the survey, should you elect to participate in a drawing, you will be eligible to receive one of three $100 gift cards from Amazon.com. Thank you!

Sincerely,

Febi Pangloli
Graduate Student in Nutrition & Public Health
apanglo1@utk.edu; ph: (865) 607-4233

Betsy Haughton, EdD, RD, LDN
Professor Emeritus
Director, MCH Nutrition Leadership Education and Training Project
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Department of Nutrition
1215 Cumberland Avenue
University of Tennessee
Knoxville, TN 37996-1920

This project has been approved by the University of Tennessee Institutional Review Board for the Protection of Human Subjects.

Email 2 Subject Line: Link to cultural competence research study of academic units

Greetings!

A study is being conducted at The University of Tennessee's Public Health Nutrition Program to understand how organizational cultural competence is being applied in post-secondary health-related academic units.

The estimated time to complete this survey is 15 minutes or less. We recognize your time is very valuable. Therefore, upon completion of the survey, you will have the option to enter a drawing to receive one of three $100 gift cards from Amazon.com. The time commitment to complete the survey is approximately 15 minutes. Should you choose to participate, please do so by Tuesday, September 20th.

To complete the survey, please click on the link to the website:
[web link]

If you have any questions or concerns please feel free to contact us. Thank you!

Sincerely,

Febi Pangloli
Graduate Student in Nutrition & Public Health
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Betsy Haughton, EdD, RD, LDN
Professor Emeritus
Director, MCH Nutrition Leadership Education and Training Project
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Email 3 Subject Line: Follow-up on cultural competence research of academic units

Hello!

We recently invited you to participate in a study to learn about the extent to which health-related post-secondary academic units are applying organizational cultural competence. If you have already completed the online survey, thank you. You can disregard this e-mail. If you have not completed the survey, we are very interested in your participation, because your input will help us understand how academic units are preparing students to be culturally competent. We ask that you complete the survey ASAP by clicking [web link].

Upon completion of the survey, you will have the opportunity to enter in an optional drawing for one of three $100 gift cards from Amazon.com.

If you have questions, please do not hesitate to contact us. Thank you!

Sincerely,

Febi Pangloli
Graduate Student in Nutrition & Public Health
apanglo1@utk.edu; ph: (865) 607-4233

Betsy Haughton, EdD, RD, LDN
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Email 4 Subject Line: Reminder to participate in cultural competence study of academic units

Greetings!

Last week you received an invitation to participate in a research study conducted at the University of Tennessee's Public Health Nutrition Program on organizational cultural competence of health-related post-secondary academic units. If you have already participated in our research study, thank you!

If you have not, please do so by today as your input is very valuable to the success of the study. Upon completion of the survey, you will have the opportunity to enter in an optional drawing for one of three $100 gift cards from Amazon.com.

You may access the survey at [web link]

If you have questions, please do not hesitate to contact us. Thank you!

Sincerely,

Febi Pangloli
Graduate Student in Nutrition & Public Health
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Betsy Haughton, EdD, RD, LDN
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Email 5 Subject Line: IMPORTANT cultural competence research study

Greetings!

Your participation is really important in this research study about organizational cultural competence of post-secondary health-related academic units. If you have already completed the survey, thank you! You may disregard this email!

If you have not, please do so today. Upon completion of the survey, you will have the opportunity to enter in an optional drawing for one of three $100 Amazon.com gift cards. This is really important, so please complete the survey today.

You may access the survey at [web link]

If you have questions, please do not hesitate to contact us. Your participation today is very much appreciated! Thank you!

Sincerely,

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Email 6 Subject Line: Final reminder to participate in research study!

Hello,

This is your last chance and opportunity to participate in a research study assessing organizational cultural competence in academic units. If you have already completed the survey, we really appreciate your participation and you may disregard this last email reminder!

If you have not, your participation is very important for us to understand how health-related academic units are applying organizational cultural competence. We do recognize that your time is very valuable. However, your input as an administrator of your academic unit is essential to the success of this research study. Upon completion of the survey, you will have the opportunity to enter in an optional drawing for **one of three $100 Amazon.com** gift cards. This will be the last reminder email you will receive, so your participation today is greatly appreciated!

You may access the survey at [web link]

If you have questions, please do not hesitate to contact us. Thank you!

Sincerely,

Febi Pangloli
Graduate Student in Nutrition & Public Health
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Vita

Alviony Febrina Pangloli received her Bachelor of Science in Chemistry from the University of Tennessee, Knoxville in December 2007. She began her graduate studies in Nutrition in 2008 and was accepted into the dual MS-MPH program in 2009 for the Master of Science in Nutrition with a concentration in Public Health Nutrition and Master of Public Health with a concentration of Health Planning and Administration. The submission of this thesis qualifies her to graduate in May 2012.