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# Cultural Competence in Physician Assistants and Their Associated Characteristics

LeAnn Aldape Burgher

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Cultural Competence in Physician Assistants and Their Associated Characteristics

By

LeAnn Aldape Burgher

Thesis Submitted in Partial Fulfillment

Of the Requirements for the Degree

Of Master of Science

Physician Assistant Studies

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MASTER OF SCIENCE IN PHYSICIAN ASSISTANT STUDIES  
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CERTIFICATE OF APPROVAL

This is to certify that the Master's Thesis of

LeAnn Aldape Burgher

has been approved by the Thesis Review Committee for the Master of Science in Physician  
Assistant Studies degree

Date of Oral Defense: 3/29/04



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Donna DeGracia, MPAS, PA-C  
Thesis Advisor



---

Dawn B. Ludwig, PhD, PA-C  
PA dept. chair

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## **Dedication**

This thesis is dedicated to my husband, Abe, who has provided strength and encouragement in my endeavor to complete this project and the PA program. He inspires me and elevates the significance of my work. I am so grateful for his love, support, and companionship.

# Cultural Competence in Physician Assistants and Their Associated Characteristics

LeAnn A. Burgher, PA-S

## ABSTRACT

**BACKGROUND:** Cultural diversity continues to expand within the United States. People of diverse cultural backgrounds have diverse expectations about the healthcare they should receive. When expectations of healthcare providers and patients conflict, quality of care, patient outcomes, and the healthcare economy suffer. Consequently, the need for culturally competent healthcare has risen to the attention of healthcare professionals. Physician assistants (PAs) have acknowledged the need to provide culturally competent care. This study aimed to determine the level of cultural competence in PAs and identify characteristics of PAs that are associated with cultural competence.

**PARTICIPANTS AND METHODS:** Cultural competence was measured in PAs from the North Central region of the American Academy of Physician assistants attending the March 28, 2003, Minnesota Academy of Physician Assistants Spring CME conference. The Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals (IAPCC) was used to measure cultural competence. A questionnaire containing demographic characteristics was completed by participants.

**RESULTS:** Thirty-six PAs completed the IAPCC and demographic questionnaire. Median number of races/ethnicities represented in co-workers was one ( $r=1-5$ ), while that in patients was three ( $r=1-6$ ). Median number of previous cultural education exposures was 3 ( $r=1-6$ ). Based on IAPCC scores, one (2.8%) PA could be labeled “culturally competent” and 35 (97.2%) were “culturally aware”. A diverse body of co-workers was associated with a high IAPCC score ( $p=0.007$ ), as was a history of greater exposure to cultural education ( $p=0.038$ ); when controlling for all variables measured, none was independently predictive of a high IAPCC score.

**CONCLUSION:** Most (35/36; 97.2%) PAs were “culturally aware”, but only one (2.8%) was “culturally competent”. Higher IAPCC scores are associated with having a diverse co-worker population and more cultural education.

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## Chapter 1, Introduction

The demographics of the United States population became more diverse throughout the latter decades of the twentieth century. United States census data from 1980 reported that the population was represented by the following proportions of races: 85.9% White, 11.8% Black, 6.4% Hispanic, 1.6% Asian and Pacific Islander, and 0.6% American Indian and Alaskan native. Census data from the year 2000 reported that those proportions were: 82.2 % White, 12.8% Black, 11.8% Hispanic, 4.1% Asian and Pacific Islander, and 0.9% American Indian and Alaskan native. This trend of increasing minority proportions of the population is projected to continue well into the twenty-first century. In 2050, the portion of the population represented by White people is expected to decrease to 74.9%. The Black population is expected to increase to 14.7% of the population, the Hispanic population to 24.3%, and Asian and Pacific Islander to 9.3% (U.S. Census Bureau, 2000).

Previous reaction to increasing diversity in the U.S. population was reflected in the “melting pot” analogy. The analogy implied that because the U.S. was being influenced by so many cultures, it would soon be a fusion of all its constituents. However, literature suggests that the U.S. society is not simply a “melting pot” in which people of diverse cultures want to merge into a single cultural entity; instead, most cultures are interested in maintaining some degree of their cultural heritage (Pope-Davis, Eliason, and Ottavi, 1994; Campinha-Bacote, 1998). Furthermore, the melting pot concept undervalues the importance of cultural differences and supports a reductionist viewpoint that, “we are all the same under the skin” (Borkan and Neher, 1991, p. 215).

### *Background*

Among diverse cultures, values, beliefs, and practices surrounding various concepts differ significantly, but fundamental concepts, such as health, are likely of equal importance to each culture. Contrary approaches to mutually important concepts can be a source of conflict between cultures and within society at large. Differences in cultural approaches to health, disease, and treatment of disease are important concepts for healthcare providers to understand. Leininger (1967) stated that different cultures “perceive and classify” problems related to health in different ways and have specific expectations about the care they should receive.

Consideration of the Hmong culture illustrates how culture influences health and expectations of healthcare. The traditional Hmong culture does not recognize common chronic diseases such as hypertension, diabetes, or cancer; furthermore, their language does not have words for these diseases. The Hmong do not consider the pathophysiology of disease like Western medicine. They believe that health is a function of a unit created by the balance of persons, souls, and spirits. When this unit is unbalanced they have symptoms such as fatigue, weakness, loneliness, and bad dreams. To restore balance, Hmong seek the help of a shaman, a clansman who is their traditional healer. The shaman searches the spiritual world to re-establish the balance between the spiritual world and the physical being (Plotnikoff, Numrich, Wu, Yang, and Xiong, 2002).

When Hmong people immigrated to the U.S. and sought healthcare from Western medicine, their traditional beliefs about health and disease and healthcare practices were incongruent with the approach used by Western healthcare providers. Conflicts arose due to the lack of knowledge regarding each tradition's concept of health, disease, and the

practice of medicine. Verbal and non-verbal language barriers further complicated these conflicts. The "collision of two cultures," as directly related to healthcare was documented by Anne Fadiman (1997) in *The Spirit Catches You and You Fall Down: A Hmong Child, Her American Doctors, and the Collision of Two Cultures*.

When patients and healthcare providers have different perspectives on patient needs and the appropriate response to those needs, expectations of neither party are met. Important relationships between patients and providers suffer because mutual feelings of disrespect, dissatisfaction, and distrust develop. Furthermore, when healthcare providers fail to consider the implications of culture on health, millions of healthcare dollars are wasted, patients feel alienated, and misdiagnoses result, sometimes with disastrous consequences (Andrews, 1992). Improvement in quality of care, patient outcomes, and healthcare economy may be seen when healthcare providers integrate the cultural values, beliefs, and practices of individual patients into the assessment, education, and intervention involved in the care of each patient (Ahmann, 2002). The ability to successfully integrate cultural considerations into healthcare is called cultural competence.

Recognition of the need for culturally competent healthcare providers prompted initiatives by the U.S. government and professional healthcare provider organizations. One such initiative is Healthy People 2010, a set of goals and objectives created by the U.S. Department of Health and Human Services to improve public health (U.S. Department of Health and Human Services, 2000). One particular goal of Healthy People 2010 is to, "Eliminate health disparities among segments of the population, including differences that occur by gender, race or ethnicity, education or income,

disability, geographic location, or sexual orientation” (U.S. Department of Health and Human Services, 2000, p.24). Healthy People 2010 further states that these health disparities can be eliminated by abolishing barriers to health care. These barriers include, “...cultural or spiritual differences, language barriers, not knowing when to seek care, or concerns about confidentiality or discrimination” (U.S. Department of Health and Human Services U.S. Department of Health and Human Services, 2000, p. 45). Healthcare providers can help to abolish these barriers by developing cultural competence.

Physician assistants, represented by the American Academy of Physician Assistants (AAPA), are responding to the call for cultural competence. Physician assistants (PAs) use the AAPA Guidelines for Ethical Conduct to direct their actions as a group and as individuals. The AAPA has made several revisions to the Guidelines for Ethical Conduct in response to changes in the social system in which PAs serve. The changing demographics of the U.S. population is one reason that the Guidelines have undergone revision (AAPA, 2002a). The Guidelines encourage PAs to acknowledge and promote diversity among healthcare providers and the populations they serve. The AAPA’s competency statement says that in addition to, “extending the full level of their professional ability... PAs should also strive to maintain and increase the quality of their health care knowledge, cultural sensitivity, and cultural competence through individual study and continuing education.” (AAPA, 2002a, ¶ 40).

### *Statement of the Problem*

Physician assistants are integral members of the healthcare team in the U.S. healthcare system; they care for a broad spectrum of the population in a variety of settings from primary to specialty care in clinics and hospitals in rural, suburban, and

urban locations. If PAs are unable to provide culturally competent care, then quality of care, patient outcomes, and healthcare economy will suffer. Furthermore, despite the widespread encouragement of cultural competence development in healthcare providers, no studies were found that describe cultural competence in PAs or that document the factors associated with development of cultural competence in PAs. If PAs are not active in the study and development of cultural competence, the profession may not succeed in developing and delivering culturally competent care.

#### *Purpose of the Study*

This study was a response to the increasingly culturally diverse population that PAs serve and the appeal for increased cultural competence among PAs by the government and the AAPA. The purpose of this study was twofold. The first purpose of this study was to determine the level of cultural competence in PAs. “Are physician assistants in the North Central region of AAPA culturally competent?” The second purpose of the study was to identify characteristics of PAs that are associated with cultural competence. “What characteristics are associated with culturally competent physician assistants?” The purpose of studying the characteristics of culturally competent PAs was to explore the characteristics which may facilitate the development of cultural competence. The characteristics that were explored were years of practice, racial or ethnic backgrounds of patients and co-workers, cultural education, and cultural experiences.

The objectives of this study were related to the above questions. The specific objectives were:

1. To determine the level of cultural competence in PAs who practice in the

AAPA North Central region.

2. To identify characteristics of PAs that are associated with cultural competence.

In addition to the specific objectives of this study, this study may have the following impact on the PA profession. As this research was conducted it may have been useful by raising awareness of cultural competence in those PAs who participated in the study. As results are made available upon completion of the study, the measurement of cultural competence in PAs may provide the profession with a general indication of the extent to which PAs are culturally competent. Furthermore, the results may provide a foundation from which the profession can further study and develop cultural competence among PAs, with the broad goal to integrate cultural competence into the care PAs provide. The characteristics of PAs that are associated with cultural competence may be useful in helping PAs, individually and as a profession, guide their development of cultural competence.

#### *Definition of Terms*

Culture "...that complex and whole which includes knowledge, beliefs, art, morals, law, custom, any other capabilities and habits acquired by man as a member of society"

(Tylor, 1871; as cited in Campinha-Bacote, 1998, p. 1).

Cultural competence "The process in which the healthcare provider continuously strives to achieve the ability to effectively work within the cultural context of a client (individual, family, or community)" (Campinha-Bacote, 1998, p. 6).

Cultural competence (operationalized) An Inventory for Assessing the Process of Cultural Competence Among Healthcare Providers score of 60-80, indicating culturally competent or culturally proficient.

good

Cultural education The process of obtaining information on cultural concepts, cultures, cultural diversity, or skillful interaction with people of different cultures.

Cultural experiences Interaction with people from different cultural backgrounds than one's own.

Ethnic "Of or relating to sizable groups of people with a common, distinctive racial, national, religious, linguistic, or cultural heritage" (American Heritage College Dictionary, 1993).

Race "A local geographic... population distinguished as a more or less distinct group by genetically transmitted physical characteristics" (American Heritage College Dictionary, 1993).

Years in practice The number of years of work experience as a PA.

#### *Assumptions and Limitations*

*Assumptions.* This study assumed that The Inventory for Assessing the Process of Cultural Competence (IAPCC) Among Healthcare Providers (Campinha-Bacote, 1998), is a valid measurement of cultural competence in the context of this study. The IAPCC was designed to measure cultural competence based on the conceptual framework of The Process of Cultural Competence in the Delivery of Healthcare Services (Campinha-Bacote, 1998). This model of cultural competence was developed to guide a cultural competence training curricula. The IAPCC was designed to measure the effectiveness of the curricula. The validity testing performed on the IAPCC was done in the context of pre- and posttest scores before and after the training intervention. The IAPCC has also been used in research studies to determine the level of cultural competence in healthcare providers, but the validity has not been determined in this context. The connection of the



IAPCC to a theoretical model of cultural competence development does, however, serve to strengthen its validity (Campinha-Bacote, 1999).

The study assumed that the IAPCC yielded a valid measure of cultural competence in PAs. The IAPCC was designed to measure cultural competence in healthcare providers. However, the validity testing was performed on results from studies with nurses as subjects. This study assumed that the IAPCC measure of cultural competence is equally valid across healthcare professions.

This study assumed participants responded to the IAPCC honestly. The IAPCC is a self-report tool. Participants may have felt pressured to reflect positively on the PA profession and, therefore, they may have responded with socially desirable responses. However, it must be assumed that participants responded honestly in order to seriously evaluate the current level of cultural competence among PAs.

*Limitations.* Cultural competence was measured in PAs who attended a conference held by the Minnesota Academy of Physician Assistants (MAPA). This weekend conference included a meeting of the North Central region of AAPA and, therefore, included the population of PAs from the AAPA North Central region. The population of PAs attending the conference may not have been representative of all PAs in the AAPA North Central region. The conference was located in Bloomington, Minnesota, a suburb in the Minneapolis/St. Paul metropolitan area. The population of PAs who live and work near the conference may have been present in greater proportions than those who live and work in greater Minnesota and other states in the North Central region. This is relevant because work location may affect variables that contribute to

cultural competence, such as the racial or ethnic backgrounds of the population with which PAs work.

The sample of PAs that were studied were attendees at a continuing medical education (CME) conference sponsored by MAPA and attended by members of MAPA and AAPA. MAPA and AAPA are professional organizations that support the physician assistant profession. The population of PAs who are members of MAPA and AAPA may have been more likely to participate in a study that sought to learn more about the profession. The fact that cultural competence was measured at a CME conference is relevant because the sample of PAs who attended may have represented those who have sought out past educational opportunities, potentially related to culture in healthcare. Previous cultural education may contribute to cultural competence in physician assistants.

Situational circumstances of the conference may have limited the degree of participation in this study. Firmly planned schedules may not have permitted enough time for conference attendees to participate. The degree of interest in the topic of cultural competence may have affected the ability to recruit a larger sample size. Conference attendees' interest may have been divided between many topics of interest; therefore, affecting willingness to devote time to participate in this study.

#### *Organization of the Remainder of the Study*

Chapter two, the literature review, will discuss the literature related to the conceptualization and measurement of cultural competence, as well as the characteristics that have been studied in association with cultural competence. Chapter three, the methodology section, will describe and discuss the research methodology selected to respond to the questions asked in this study. Chapter four, the results, will present the

statistical data. Chapter five, the discussion, will present an analysis of the data within the context of this study and the studies reviewed in preparation for this study. Chapter five will conclude with recommendations for further research.

## Chapter 2, Literature Review

This review of the literature begins with a brief historical perspective of cultural competence and subsequently places cultural competence and its measurement into a current context. The remainder is organized to reflect the process in which investigators of cultural competence have engaged. The process begins with development of a conceptual framework (i.e. a model of cultural competence). Models reported in the literature are examined, followed by identification of the model chosen for the conceptual framework of this study. The manner in which this model conceptualizes cultural competence is explained and compared to other models reviewed. Review of the model chosen is continued and its constructs, components which comprise the whole of cultural competence, are discussed and compared to those reported in the literature. Next, measurements of cultural competence are reviewed, followed by identification of the measurement tool chosen to measure cultural competence in this study. Finally, studies that have used demographic questionnaires to explore characteristics associated with cultural competence were reviewed.

The majority of the sources of literature on cultural competence reviewed for this study were from the professions of nursing, medicine, mental health services, and counseling. No literature specific to the physician assistant profession was found. However, the core concepts of cultural competence presented in the literature were consistent across these healthcare professions. Websites of government-sponsored, professional, and university-based organizations were used as additional sources of information on cultural competence. The government and university organizations' focus was on cultural competence in both individuals and healthcare delivery systems; these

organizations did not indicate that there are separate cultural competence concepts for the specific healthcare professions.

Madeleine Leininger, a nurse and anthropologist who coined the term cultural competence, introduced “The Culture Concept and its Relevance to Nursing” in the *Journal of Nursing Education* in April, 1967. Leininger brought the culture concept to the attention of healthcare professionals so they could better respond to the globalization that was occurring in areas like foreign trade, communication, travel, international politics, as well as healthcare. The healthcare profession was encouraged to recognize that diverse cultures were participating in U.S. systems. These cultures would bring new behaviors and attitudes that healthcare would have to understand in order to meet their needs. Leininger stated that, “Understanding the culture of an individual seeking health care is just as important for effective health care as is knowledge of the physiological and psychological aspects of an individual’s illness” (Leininger, 1967, p. 28).

Since the advent of cultural competence, the literature has become saturated with books and journal articles dealing with the conceptualization and measurement of cultural competence. Over two decades later, this process continues to evolve (St. Clair and McKenry, 1999). The Health Resources and Services Administration (HRSA) recognized that the ability to measure cultural competence is a critical factor in ensuring cultural competence. In support of cultural competence and its measurement, HRSA contracted with The Lewin Group to review the literature with intent to 1) develop a conceptual framework for measuring cultural competence and 2) identify indicators and measures that can be used to assess cultural competence (Lewin Group, 2001). Unfortunately, the results of this endeavor were not available at the time of this literature

review. Therefore, the literature review for this study focused on current conceptual frameworks and measurements of cultural competence.

### *Models of Cultural Competence*

Many models have been developed to conceptualize the process in which one becomes culturally competent. These models represent two general formats: 1) continuum models (Cross, Bazron, Dennis, and Isaacs, 1989; Wells, 2000), which describe stages of progression toward cultural competence and 2) models that described dimensions or constructs within levels of cultural competence (Orlandi, 1992; Campinha-Bacote, 1998). The terms “dimensions” and “constructs” were selected by the authors of each model to describe components of cultural competence which are parts of the comprehensive whole.

Cross, et al. (1989) developed the Cultural Competence Continuum. Cultural competence was defined as, “a set of congruent behaviors, attitudes, and policies that come together in a system, agency, or among professionals that enables them to work effectively in diverse cultural situations” (p. 13). The continuum consists of six stages: cultural destructiveness, cultural incapacity, cultural blindness, cultural openness, basic cultural competence, and cultural proficiency. The authors encouraged viewing cultural competence as a developmental process and goal toward which systems, agencies and professionals can strive.

Wells (2000) created the Cultural Development Model (CDM). The CDM is a six-stage continuum which groups the stages into two phases, the cognitive phase and affective phase. The cognitive phase represents the first three stages - cultural incompetence, cultural knowledge, and cultural awareness - and focuses on the

attainment of knowledge necessary to become culturally competent. The affective phase represents the final three stages of the CDM: cultural sensitivity, cultural competence, and cultural proficiency. In the affective phase, knowledge acquired in the cognitive phase is applied to healthcare practice and education where changes in attitude and behavior are incorporated. Wells (2000) stated the CDM was a philosophical and behavioral guide to the ongoing commitment to cultural competence development.

Orlandi (1992) developed the Cultural Sophistication Framework to conceptualize cultural competence as a multidimensional matrix arranged in a "3 x 4"; three columns with levels of cultural competence by four rows of different dimensions of cultural competence. The levels of cultural competence were titled culturally incompetent, culturally sensitive, and culturally competent. The dimensions, which constitute the levels of cultural competence, were the cognitive dimension, affective dimension, skills dimension, and overall effect. Each dimension was defined within each level of cultural competence. Orlandi emphasized that this approach allows for assessment of dimensions individually. Therefore, an individual could be culturally competent in knowledge, but culturally incompetent in skill.

Dr. Campinha-Bacote (1998) proposed The Process of Cultural Competence in The Delivery of Healthcare Services: A Culturally Competent Model of Care. Cultural competence was defined in this model as, "the process in which the healthcare provider continuously strives to achieve the ability to effectively work within the cultural context of a client (individual, family, or community)" (p. 6). The model is comprised of five interdependent constructs: cultural awareness, cultural knowledge, cultural skill, cultural encounters, and cultural desire. Campinha-Bacote provides a diagram to help visualize

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the process of cultural competence. Each construct is placed into a circle. The five circles overlap so that all intersect in the center where the constructs, addressed both individually and relative to one another, represent the process of cultural competence. One can enter the process through any construct, but all must eventually be addressed to develop cultural competence. As cultural competence is refined, the circles overlap to a greater extent, increasing the area of intersection among the five constructs and, therefore, cultural competence. Campinha-Bacote (1998) explains the process further by stating that, “the process of cultural competence requires healthcare providers to see themselves as becoming culturally competent, rather than being culturally competent” (p. 6).

The four models presented here are not an exhaustive representation of the literature, but are representative of the basic conceptual frameworks used to describe the development of cultural competence. Progression towards cultural competence along a continuum was described by Cross, et al. (1989) and Wells (2000). The Center for Cross Cultural Health (2000) asserted that this type of model may be useful for visualizing where an individual or institution is in the process of developing cultural competence. This assertion is congruent with the recommended uses of these models. Orlandi’s (1992) and Campinha-Bacote’s (1998) models are conceptually similar because both models describe levels of cultural competence that are achieved by mastering dimensions or constructs to greater extents at each level. These models are different from the continuum models that are based on stages; stages imply a stepped approach in which attainment of one stage requires successful completion of prior stages. The process concept allows entrance into the process at any construct (Campinha-Bacote, 1998).



Dr. Campinha-Bacote's (1998) process concept is appealing to the investigator of this study; by allowing entrance into the process through any construct, it honors the unique experiences with which individuals arrive at the process of cultural competence. The investigator of this study also believes that Campinha-Bacote's model, which continually addresses each construct throughout the development of cultural competence, is more likely than the continuum models to ensure that the interdependent constructs are balanced; therefore, maximizing cultural competence development. Wells (2000) pointed out that there is considerable variance in the stages of cultural competence development in continuum models. The lack of consensus regarding progression of stages strengthens the argument for a conceptual framework that addresses constructs at all levels of cultural competence.

The Process of Cultural Competence in the Delivery of Healthcare (Campinha-Bacote, 1998) was used as the conceptual framework of this study for the following reasons: 1) it allows entrance into the process of cultural competence through any construct, 2) it consists of constructs which are addressed at every level of cultural competence, and 3) the constructs are thoroughly defined, providing guidance to develop and measure cultural competence.

#### *Constructs of Cultural Competence*

The Process of Cultural Competence in the Delivery of Healthcare Services is composed of five constructs with interdependent relationships. To fully understand how the model conceptualizes cultural competence, each construct must be understood. The five constructs are cultural awareness, cultural knowledge, cultural skills, cultural encounters, and cultural desire. Similar constructs have been described in the literature.

Culhane-Pera, Reif, Egli, Baker, and Kassekert (1997) developed knowledge, skills, and attitudinal objectives to describe cultural competence. Smith (1998) compiled a list of cultural competence constructs found in the literature. This list includes cultural awareness, cultural sensitivity, skills, knowledge, and cultural encounters. Comparison of these constructs revealed that similar ideas were expressed in differently labeled constructs. This section of the literature review focused on the constructs of cultural competence in Campinha-Bacote's model (1998) compared with other constructs found in the literature.

The cultural awareness construct is the process of examining one's cultural background and biases toward other cultures. Furthermore, cultural awareness is sensitivity to the, "values, beliefs, lifeways, practices and problem-solving strategies of a client's culture." (Campinha-Bacote, 1998, p. 10). Campinha-Bacote (1998) emphasized that cultural awareness is not enough to become culturally competent, but is an essential step in realizing that culture has important implications on the interaction between healthcare providers and clients. The attitudinal objectives (Culhane-Pera, et al., 1997) also requires self-examination of one's own cultural background, as well as awareness and respect toward the values, beliefs, and practices of other cultures. Like the awareness construct, the attitudinal objective requires awareness of cultural implications on the relationship between clients and providers.

Cultural sensitivity is reflected in both the awareness construct (Campinha-Bacote, 1998) and attitudinal objectives (Culhane-Pera, et al., 1997). The fundamental concept of cultural sensitivity, described by Bennett (1986) in the Developmental Model of Intercultural Sensitivity, is the progression from ethnocentrism to ethnorelativism.

Ethnocentrism is the subjective experience that one's own culture is central to all reality.

Ethnorelativism is the experience of one's own culture within the context of other cultures (Bennett, 1986). The progression from ethnocentrism to ethnorelativism is essential to development of cultural competence because it requires healthcare be provided within the client's cultural context. Louie (1996) endorsed this idea, stating, "if nurses are to provide effective healthcare to clients they need cultural relativism, which means judging and interpreting behavior and beliefs of others in terms of their traditions and experiences" (p. 228).

The cultural knowledge construct is generally agreed upon in the literature; knowledge in one model is described similarly to knowledge in other models (Campinha-Bacote, 1998; Culhane-Pera, et al., 1997; Salimbene, 1999; Wells, 2000). Campinha-Bacote (1998) described cultural knowledge as a process of learning how cultures interact with and interpret the environment based on their system of beliefs about the world. Cultural knowledge enables the healthcare provider to access the client's cultural frame of reference to understand how the client may perceive a situation. Salimbene (1999) described the cultural frame of reference as a "cultural filter" through which messages are communicated and received from culturally-based perceptions of the environment. Biological variations between different ethnic populations are also important within the construct of cultural knowledge and include ethnic-specific endemic diseases, health conditions, and variations in drug metabolism (Campinha-Bacote, 1998).

Cultural skills require healthcare providers to elucidate each client's cultural beliefs, values, and behaviors and determine implications of their culture on health behavior. Individualized assessments help providers avoid making assumptions about

clients based on generalizations of a cultural group (Campinha-Bacote, 1998). Cultural skills also include performance of culturally-appropriate physical exams (Campinha-Bacote, 1998; Culhane-Pera, et al., 1997), effective work with interpreters, and incorporation of cultural information into diagnostic and therapeutic plans (Culhane-Pera, et al., 1997).

The cultural encounter construct is the process in which healthcare providers increase cultural knowledge and refine cultural skills through direct interaction with culturally diverse clients. Encounters are important opportunities to apply relevant knowledge and, at the same time, negate stereotypes that can manifest from broad didactic education. Encounters are also essential to learning the subtleties of intercultural verbal and non-verbal communication skills (Campinha-Bacote, 1998). Other models included in this literature review do not include cultural encounter constructs, but the review by Smith (1998) reports that cultural encounters were included elsewhere as a construct of cultural competence.

Cultural desire is the fifth construct in the process of developing cultural competence. The premise of this construct is that, in the absence of cultural desire, awareness, knowledge, skill, and encounters are not adequate for the development of cultural competence. Cultural desire is the factor which motivates individuals to understand the role of culture in health behavior and develop the ability to respond within the context of the clients' cultures. The construct of cultural desire is unique among the other constructs because it cannot be taught; individuals must either come to the process with genuine desire or develop it within the process of addressing the other constructs

(Campinha-Bacote, 1998). The construct of cultural desire is unique to Campinha-Bacote's model.

Cultural awareness, knowledge, skills, encounters, and desire are the interdependent constructs which comprise *The Process of Cultural Competence in the Delivery of Healthcare Services* (Campinha-Bacote, 1998). Entrance into the process can occur through any construct, but because of the interdependent relationship of the constructs, all must eventually be addressed. Understanding the roles of the constructs clarifies the conceptualization of cultural competence and gives healthcare providers an approach to providing culturally competent care (Campinha-Bacote, 1998). The following section will review the utilization of these constructs to measure cultural competence.

#### *Measurement of Cultural Competence*

Measurement of cultural competence attempts to assess the extent to which healthcare providers have developed the constructs of cultural competence and, furthermore, the extent to which they integrate these constructs into culturally competent behavior in clinical settings. It appears that measurement of individual constructs of cultural competence can be achieved with current measurement tools; however, measurement of the behavioral aspect reflected in practice is not well achieved with current tools. This section of the literature review examines current cultural competence measurement tools, the populations in which cultural competence has been measured, and limitations of the tools. Next, the tool that was used to measure cultural competence in this study is identified. Finally, challenges of measuring cultural competence are reviewed.

The Cultural Self-Efficacy Scale (CSES), designed by Bernal and Froman (1993), used the three subscales of cultural concepts, knowledge, and skills to measure cultural self-efficacy. Cultural self-efficacy was defined as nurses' perceived self-confidence in their, "...ability to understand the client's world and effectively interact with clients and their families" (p. 24). The theoretical framework for the scale was based on Bandura's theory of self-efficacy. Bandura (1977) proposed that people who perceive themselves as able to successfully perform a task are more likely to engage in that task and complete it successfully. Conversely, people who do not have self-efficacy are more likely to avoid the task. The CSES is a Likert scale containing 26 statements that address cultural concepts, knowledge, and skills recognized in the transcultural nursing literature as essential to delivering culturally competent care. The scale was validated by comparing nurses' self-efficacy to demographic data that would provide rationale for reporting high self-efficacy, such as age, years of education, prior cultural education, cross-cultural experiences, and ethnic/racial group. Prior cultural education was associated with high self-efficacy. Ethnicity was also associated with high self-efficacy, but only in the context of nurses caring for clients who have the same ethnic background. However, this represented intra-cultural self-efficacy rather than cross-cultural self-efficacy that is required by cultural competence. The CSES will not be used to measure cultural competence in this study for reasons identified in the following paragraph.

Smith (2001) used the CSES to study the effects of cultural education on cultural competence in registered nurses. Cultural self-efficacy increased significantly after the educational intervention. However, limitations of this study were attributed to the CSES, a self-report tool. The study was limited to the extent that participants responded

honestly to the statements in the tool and the inability of the CSES and other existing tools to assess all aspects of cultural competence. The author did not describe the aspects of cultural competence not assessed by these tools. St. Clair and McKenry (1999) used the CSES to measure cultural self-efficacy, but did not use it to imply measurement of cultural competence. "Self-efficacy is not cultural competence" (p. 234); cultural competence requires the progression from ethnocentrism to ethnorelativism, which is not reflected in self-efficacy. Cultural competence was not measured, but the progression from ethnocentrism to ethnorelativism was recognized in nursing students who participated in a international cultural immersion experience. Evidence of progression from ethnocentrism to ethnorelativism was found in journal entries that documented students' response to living and working in another culture. The progression from ethnocentrism to ethnorelativism is an important aspect of the cultural awareness construct in the conceptual framework for this study and in the literature as documented above. By their assessment, the CSES is not a feasible tool for this study.

Pope-Davis, Eliason, and Ottavi (1994) conducted an investigation to determine if nursing students were "multiculturally competent". The Multicultural Counseling Inventory (MCI), originally designed for counselors, was adapted for nursing students. The MCI is a 40-item, four-point Likert self-report scale which measures four subscales of cultural competence: skills, knowledge, awareness, and relationship. Like the CSES, the MCI is a self-report tool; the authors reported that use of the MCI was limited to the extent participants responded honestly to the statements. Pope-Davis, et al. (1994) reported evidence that the original MCI, designed for measuring cultural competence in counselors, had content validity. However, the authors concluded that the scale needed

further refinement for use in nursing. No other studies reporting use of the MCI were found in the literature review for this study. The MCI was not chosen for use in this study because of 1) lack of evidence that it is a valid measure of cultural competence and 2) its content is limited to cultural competence measurement in counselors and nurses.

Culhane-Pera, et al. (1997) developed and implemented multicultural curriculum in a family medicine residency program. Five levels of cultural competence were each described by specific criteria within three categories of objectives: knowledge, skills, and attitudes. A five-point Likert scale self-assessment tool was used to determine the extent the objectives were met for Level 3 of cultural competence. Comparison of pre- and post-curriculum self-evaluations indicated that residents' cultural knowledge, skills, and overall level of cultural competence increased. Faculty evaluations of residents also indicated an increase in residents' level of cultural competence. However, the results did not indicate whether increased cultural competence resulted in culturally competent behavior (Culhane-Pera, et al., 1997).

The Process of Cultural Competence In The Delivery of Healthcare Services (Campinha-Bacote, 1998), includes a measurement tool: the Inventory For Assessing The Process Of Cultural Competence (IAPCC) Among Healthcare Professionals (Appendix A). The IAPCC is a 20-item Likert scale designed to measure cultural competence using the constructs of cultural awareness, knowledge, skills, and encounters. IAPCC scores place providers into one of four categories: culturally incompetent, culturally aware, culturally competent and culturally proficient. Higher scores indicate a higher level of cultural competence. The IAPCC is intended to measure cultural competence before and after an educational intervention using a curriculum based on this



model. It can also be used in research to measure healthcare providers' level of cultural competence (Campinha-Bacote, 1999). The IAPCC will be used in this study to measure cultural competence in PAs.

Experience with the IAPCC has increased since its development. It was initially field tested with registered nurses in acute care settings and with healthcare students before and after a course on transcultural health care (Campinha-Bacote, 1998). Content validity of the IAPCC was established by five transcultural healthcare experts (Campinha-Bacote, 1999). Measurements performed on the IAPCC indicated that it also met the test for internal consistency (Wilson, 2002), demonstrated acceptable reliability (Tinsley, 2000), and had construct validity (Campinha-Bacote, 1999). The link with a conceptual framework serves to strengthen the construct validity of the IAPCC (Campinha-Bacote, 1999).

One concern regarding the IAPCC is that it is a self-report tool. The studies conducted with the CSES (Smith, 1999) and MCI (Pope-Davis, et al., 1994) identified use of these self-report tools as a limitation of the studies. The studies were limited to the extent participants responded honestly and the inability of the tools to measure all aspects of cultural competence. As discussed by Culhane-Pera, et al. (1997), assessment with a self-report tool before and after multicultural curriculum demonstrated increased cultural competence, but whether increased cultural competence translated into culturally competent behavior remained unknown. It is not known whether the IAPCC measurement of cultural competence indicates culturally competent behavior in a healthcare setting.

Jones, Bond, and Cason (1998) suggested that current cultural competence tools do not wholly reflect cultural competence because, "...behavioral measures of culturally competent interpersonal styles are still lacking" (p. 42). The lack of measures which reflect cultural competence in its entirety represents a gap not only in the literature, but also in the study of cultural competence. The Lewin Group (2001) identified three measurement challenges specific to cultural competence. First, the concrete nature of measurements makes it difficult to reflect the "fluid and multifaceted" nature of culture and the process of cultural competence. Second, true measurement of cultural competence would not only have to reflect it as a dynamic process, but reflect the inherent interaction between individuals, organizations, healthcare delivery systems, and society. Third, the outcome of cultural competence is difficult to measure, because it is just one factor among many which impact health outcomes of a culturally diverse population.

#### *Demographics Associated with Cultural Competence*

The final section of the literature review examines studies that have explored the characteristics of culturally competent individuals. The studies included in this review measured cultural self-efficacy or cultural competence and compared individual participant results with his or her demographic data. The purpose was to identify characteristics that are associated with cultural competence. The characteristics associated with cultural competence in the literature are relevant to this study because it will examine characteristics of PAs associated with cultural competence.

Bernal and Froman (1993) used a demographic questionnaire to examine the characteristics of nurses in which cultural self-efficacy was measured. The demographic

data obtained was age, racial or ethnic background, years in practice, educational preparation (associates degree, diploma, BSN, or master's degree), specialty area of practice, ethnicities of clients in case load, and previous experience (lived outside the USA, speaks in other language, worked in Peace Corps, and worked outside of the USA). The study found three positive relationships between the demographic data and cultural self-efficacy. First, high self-efficacy was associated with previous cultural education. Education from both nursing programs and continuing education increased cultural self-efficacy. Second, self-efficacy was associated with having an ethnically diverse client case load. This demonstrated that a relationship between working with culturally diverse clients and perceived cultural self-efficacy. The third relationship demonstrated that nurses had high self-efficacy when caring for clients of the same ethnic background. This relationship represented self-efficacy for intra-cultural, but not cross-cultural diversity. High cross-cultural self-efficacy seemed to require that nurses had direct experience with culturally diverse clients (Bernal and Froman, 1993).

Bond, Kardong-Edgren, and Jones (2001) used the CSES (this study referred to the CSES as the Transcultural Questionnaire) to compare the cultural self-efficacy of students in three nursing programs: bachelors of science in nursing (BSN), registered nurses (RN) to BSN, and masters of science in nursing (MSN). A demographic questionnaire was used to identify the students' characteristics which could account for variation in self-efficacy among the three groups. The demographic data obtained were age, gender, ethnicity, highest level of education completed, employment in healthcare, primary language, cultural diversity education included in general education, and cultural diversity education in continuing education.

Overall, cultural self-efficacy did not differ between the three groups of nursing students, with the exception of the cultural concepts subscale; BSN students reported higher self-efficacy in knowledge of cultural concepts than RN to BSN or MSN students. This result was unexpected since the latter two groups had previous and continuing education on cultural diversity. The researchers accounted for this by the following reasons: 1) BSN students were younger and grew up in a more culturally diverse society and, therefore, may have had cross-cultural opportunities in earlier education and social encounters; 2) nearly half of the BSN students were employed in a healthcare setting while in the nursing program and, therefore, may have had experiences which reinforced the cultural content in nursing curriculum; 3) BSN students may have had a sense of false confidence while working hard to increase their own knowledge and skills in multiple subjects; and 4) BSN students may have been exposed to cultural concepts and knowledge more recently than the returning RN to BSN or MSN students. Relationships between the rest of the demographic data and cultural self-efficacy were not discussed. Bond, et al. (2001) supported further examination of the impact of both experience with culturally diverse persons and the ability to speak in the client's primary language on cultural knowledge and skill.

Pope-Davis, et al. (1994) obtained demographic data from nursing students in which the MCI was used to measure cultural competence. The demographic data obtained was age, gender, ethnic background, academic class standing, field of study, and work experience. Relationships between the demographics and cultural competence subscales of skills, awareness, knowledge, and relationship were studied. Work experience had a positive relationship with high self-perceived cultural knowledge and

skill, but was not associated with increased cultural awareness or relationship (interaction with minority clients). The fact that students reported cultural knowledge and skill, but not cultural awareness was analyzed in relation to Pedersen's (1988) assertion that cultural awareness needs to precede cultural knowledge and skills. Perceived cultural knowledge and skills without evidence of awareness may indicate "false awareness," which can lead to knowledge and skills based on stereotypes rather than true awareness. Pope-Davis, et al. (1994) stated that more research is needed to identify specific characteristics and experiences that increase cultural competence.

Bernal and Froman (1993) explored the relationship between cultural self-efficacy and the cross-cultural variable, defined as experiences living, working, or volunteering outside of the USA. Few participants reported these experiences and no relationship was identified with cultural self-efficacy. However, the relationship between cultural immersion and cultural competence was identified in nursing students who participated in a two to three week international cultural immersion experience (St. Clair and McKenry, 1999). Students were asked to document their thoughts regarding daily experiences living and working in another culture, integration of patients' culture into Western healthcare practices, and their understanding of themselves and the culture in which they were immersed. Journal entries were analyzed as well as documentation of faculty observations of the students. There was evidence of progression from ethnocentrism to ethnorelativism in both documentations. Although students felt they were culturally sensitive and aware prior to the immersion experience, it wasn't until the immersion experience that students began to recognize their "unknown ethnocentrism" and its effect on their ability to provide culturally competent care (St. Clair and McKenry 1999).

*Summary*

Longitudinal and widespread support of cultural competence in healthcare professions has resulted in over two decades of conceptualization, research, and measurement of cultural competence. Although the American Academy of Physician Assistants supports the development of cultural competence in PAs (AAPA, 2002a), no published study was found that examined the state of cultural competence in the physician assistant profession. This study aimed to measure cultural competence in PAs with the IAPCC, based on *The Process of Cultural Competence in the Delivery of Healthcare Services: A Culturally Competent Model of Care* (Campinha-Bacote, 1998). This model conceptualizes cultural competence as five interdependent constructs: cultural awareness, cultural knowledge, cultural skills, cultural encounters, and cultural desire. These constructs, addressed individually and relative to one another, represent the process of cultural competence, a continuous, dynamic, and evolving process of learning to effectively provide healthcare within the cultural context of a client (Campinha-Bacote, 1998).

Studies that have measured cultural competence or the similar measure of cultural self-efficacy have also studied the characteristics of the participants that may be associated with cultural competence. Knowledge gained from the study of such characteristics may be constructive in the development of cultural competency in others. Utilizing a format similar to the studies reviewed in this chapter, this study explored characteristics in participants that may be associated with cultural competence.

## Chapter 3, Methodology

### *Description of Methodology*

This study utilized quantitative, descriptive methodology to measure cultural competence in physician assistants. Quantitative methodology was used because measurement of cultural competence with the IAPCC yields a numeric value, or quantifies cultural competence. Non-experimental methodology was appropriate for this study because the intent was not to manipulate cultural competence, but describe the current level of cultural competence in PAs. Demographic data was obtained from PAs in whom cultural competence was measured. Descriptive statistics were used to describe cultural competence and the demographic characteristics of the participants. Bivariate correlation was used to determine the relationship between the dependent variable, cultural competence, and the independent variables obtained from the demographic data.

### *Design of the Study*

Preparation for data collection required a number of steps. Permission to use the IAPCC to measure cultural competence was obtained through written communication from its author, Dr. Campinha-Bacote (Appendix B). Permission to recruit participants at the MAPA Spring CME Conference was obtained from MAPA through written communication with the president of MAPA (Appendix C). Permission to conduct the study was obtained from the Augsburg College Institutional Review Board (Appendix D).

The level of cultural competence in PAs was described based on the results of the IAPCC. The sample of PAs was then described based on the results of the Physician Assistant Demographic Questionnaire. The relationship between the dependent variable

cultural competence (IAPCC scores) and the independent variables from the demographic data was then described. The independent variables were years of practice, racial or ethnic backgrounds of patients, racial or ethnic backgrounds of co-workers, cultural education, and cultural experiences.

### *Population and Sample*

The population studied was PAs who attended the North Central regional conference of AAPA which has members in Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin. The 2002 AAPA Physician Assistant Census Report presented data on 19,745 of 56,952 PAs eligible for national certification. The number of PAs who responded to the census survey from the North Central region totaled 3,414 (AAPA, 2002b). The report did not include the actual number of PAs in the North Central region. The sample of PAs that represented this population were PAs who attended the MAPA Spring CME Conference on March 28<sup>th</sup>, 2003. The number of PAs registered for the conference as of March 19<sup>th</sup>, 2003 was approximately 170. This number represents five percent of the population that responded to the AAPA Physician Assistant Census Report survey. The goal of this study was to recruit 50 participants at the conference and, therefore, represent 29% of those in attendance at the conference and 1.5% of PAs in the AAPA North Central region.

Participants were recruited at the MAPA Spring CME conference. The investigator was located at a table provided by MAPA for students conducting research. A sign was on the table informing conference attendees of the research study being conducted. The investigator made initial contact with potential participants at the



conference by informing them of the topic being investigated. Potential participants were asked to read the informed consent. Those who wished to participate were instructed to complete a form containing the IAPCC and a demographic questionnaire. To maintain anonymity of the participants, no participant was asked to provide his or her identity at the time of recruitment. Furthermore, completion of the IAPCC and demographic questionnaire did not require participants to identify themselves or provide identifying information. Those who chose to participate privately completed the IAPCC and demographic questionnaire and placed completed forms into a closed drop box. A snack was available at the table for anyone to take before or during participation in the study. Taking a snack did not obligate anyone to participate.

#### *Instrumentation*

The IAPCC was used to measure cultural competence in PAs. The IAPCC is a 20-item, self-administered tool designed to measure cultural competence among healthcare professionals. It is based on the conceptual framework, *The Process of Cultural Competence in the Delivery of Healthcare Services* (Campinha-Bacote, 1998). The 20-items in the IAPCC have one of five response categories: strongly agree, agree, disagree, strongly disagree; very aware, aware, somewhat aware, not aware; very knowledgeable, knowledgeable, somewhat knowledgeable, not knowledgeable; very comfortable, comfortable, somewhat comfortable, not comfortable; and very involved, involved, somewhat involved, not involved. Scores on the IAPCC range from 20-80 points and indicate one of four levels of cultural competence: culturally incompetent, 20-39 points; culturally aware, 40-59 points; culturally competent, 60-74 points; and culturally proficient, 75-80 points.

Demographic data was obtained using the Physician Assistant Demographic Questionnaire (Appendix E). This questionnaire was designed by the investigator of this study to obtain demographic information on PAs that may have a positive relationship with cultural competence, operationally defined as culturally competent or culturally proficient as determined by IAPCC scoring. The demographics included in the questionnaire were years of practice, racial or ethnic background of patients, racial or ethnic background of co-workers, cultural education, and cultural experiences. The demographic questionnaire required participants to write in their years of practice. The other questions were multiple response and required participants to check the responses that applied to them.

#### *Data Collection and Analysis*

*Data Collection Procedures.* Cultural competence was measured in PAs who attended the MAPA Spring CME Conference. Physician assistants at the conference were asked to participate in this study. Potential participants were asked to read the informed consent. Informed consent sheets were available for participants to keep. Consenting participants completed the IAPCC and the Physician Assistant Demographic Questionnaire. Participants deposited completed forms into a drop box. Completion of these steps implied informed consent.

*Scoring.* Cultural competence was determined by the investigator using the scoring procedure (Appendix F) developed for the IAPCC (Campinha-Bacote, 1998). The procedure required applying the appropriate Likert scale value of 1 – 4 points to the participant-selected response for each of the 20 items. The sum of the scores for the 20 items is converted into one of four corresponding levels of cultural competence:

culturally incompetent, culturally aware, culturally competent, or culturally proficient. Responses to the demographic questionnaire were prepared for analysis by totaling the number of responses to each multiple response question for each participant.

*Data analysis.* Data was analyzed with Statistical Package for the Social Sciences (Version 11.0, PC). The results of the IAPCC were reported as both numeric scores and levels of cultural competence. Descriptive statistics were used to provide an understanding of cultural competence in the sample of participating PAs. The frequency at which the four levels of cultural competence occurred was reported. The central tendency of the group was reported with the mean, mode, and median IAPCC scores. The relative position of participants' cultural competence scores was reported with standard deviation. Descriptive statistics were also used to describe the demographic data.

Cultural competence, the dependent variable, was expressed as the IAPCC score. The independent variable 'years of practice' was in the form of continuous data. The independent variables racial or ethnic background of patients, racial or ethnic background of co-workers, cultural education, and cultural experiences were expressed as continuous data by totaling the number of responses to each multiple response question. The relationship between the dependent and independent variables was studied using bivariate correlation, expressed as Pearson's correlation coefficients ( $r$ ) and two-tailed tests for statistical significance. This statistical procedure required that the dependent and independent variables be expressed as continuous data. Linear regression was then used to determine the independent effects of a single independent variable while controlling

for the other, possibly confounding, variables. Statistical significance was determined at  $p = <0.05$ .

As a means to further analyze the cultural education variable, an additional statistical analysis was performed. The analysis examined the relationship between cultural education and cultural knowledge, expressed as a subscore of the cultural knowledge items on the IAPCC. The IAPCC items used to calculate this subscore were 5, 6, 8, and 10. Please note that this subscore was done to help the investigator of this study understand the relationship between cultural education and cultural knowledge, as measured by the IAPCC. The subscale is not a scoring method endorsed by the author of the IAPCC. Bivariate correlation was used to study the cultural knowledge subscore with the total number of cultural education sources.

## Chapter 4, Results

Thirty-nine conference attendees participated in this study. The goal was to recruit 50 participants. Of the 39 participants, three did not complete all of the IAPCC items; therefore, 36 were eligible for IAPCC scoring. Of the 36 participants who completed the IAPCC, 35 completed the Physician Assistant Demographic Questionnaire. Number of attendees registered for the conference who were eligible to participate was 181. The 36 participants eligible for IAPCC scoring represent 1% of the 3,414 PAs recognized by this study who practice within the AAPA North Central region (AAPA, 2002b).

### *Descriptive Statistics*

*IAPCC results.* This study determined that one (2.8%) of the participants was culturally competent, with an IAPCC score of 67. Thirty-five (97.2%) were culturally aware, with IAPCC scores ranging from 40-59. The minimum and maximum IAPCC scores were 40 and 67, respectively. No participant had an IAPCC score at the culturally incompetent or culturally proficient level. The mean IAPCC score was 51.3. The median score was 51 and the mode was 49 (Table 1A). The standard deviation from the mean was  $\pm 5.3$  (Figure 1).

*Question one, years of practice.* The mean years of practice was 7.7, representing a range of six months (3/36; 8.6%) to 28 years (2/36; 5.7%). The median years of practice was 4.5 and the mode was two years (Table 2).

Table 2.

<b>Question 1 Years in Practice</b>	
Mean	7.7
Median	4.5
Mode	2
Std. Deviation	8.6
Minimum	0.5
Maximum	28

*Question two, racial or ethnic backgrounds of patients.* The mean number of responses to this multiple response question was 3.3, indicating the mean number of racial or ethnic backgrounds represented in the participants' patient populations. Two modes existed within the response sets: nine (25%) participants indicated that their patient population was represented by one racial or ethnic background and nine (25%) participants indicated that their patient population was represented by five racial or ethnic backgrounds. The minimum number of responses was one (nine participants or 25%) and the maximum was six (Table 3A); five (13.9%) participants responded to all six possibilities, including 'other', in which participants entered their personal response (Table 3C). The most common racial or ethnic background of patients was White/Caucasian; 34 (94.4%) of participants included this response (Table 3B).

*Question three, racial or ethnic backgrounds of co-workers.* The mean number of responses to this multiple response question was 1.69, indicating the mean number of racial or ethnic backgrounds represented in the participants' co-worker populations. The mode was one response and denotes 18/36 (50%) participants who had only one racial or ethnic background represented in their co-worker population. The minimum number of responses was one (18/36 participants or 50%) and the maximum was five; two (5.6%)

participants responded to five of the six response possibilities (Table 4A). The six possible responses included 'other', in which participants entered their personal response (Table 4C). The most common racial or ethnic background of co-workers was White/Caucasian; 34 (94.4%) of participants included this response (Table 4B).

Table 4.

<b>Demographic Question 3 Racial or Ethnic Backgrounds of Co-workers</b>		
<b>A Total Number of Racial or Ethnic Backgrounds Represented in Co-worker Population</b>		
Mean		1.7
Median		1
Mode		1
Std. Deviation		1.1
Minimum		1
Maximum		5
<b>B Percent PAs with Racial or Ethnic Background Represented in Co-worker Population</b>		
		<b><u>N (%)</u></b>
White/Caucasian		34 (94.4)
Black/African-American		12 (33.3)
Hispanic/Latino(a)		6 (16.7)
Asian/Pacific Islander		4 (11.1)
Native American or Alaskan Native		4 (11.1)
Other*		1 (2.8)
<b>C *'Other' Responses</b>		
		<b><u>N (%)</u></b>
Somalian		1 (2.8)

*Question four, cultural education.* The mean number of responses to this multiple response question was 2.42, indicating the mean number of sources of cultural education participants have received that included information on working with culturally diverse patients. The most common number of responses was three and signifies that 13 (36.1%) had received three sources of cultural education. The minimum number of responses was one (11 participants or 30.6%) and the maximum was six (Table 5A); one

(2.8%) responded to all six response possibilities, including 'other' (Table 5C). The most common source of cultural education was PA programs; 25 (69.4%) included this response (Table 5B).

Table 5.

<b>Demographic Question 4 Cultural Education</b>		
<b>A Total Number of Cultural Education Sources</b>		
Mean	2.4	
Median	3	
Mode	3	
Std. Deviation	1.4	
Minimum	1	
Maximum	5	
<b>B Percent PAs with each Source of Cultural Education</b>		
		<b><u>N (%)</u></b>
PA program		25 (69.4)
Continuing medical education		19 (52.8)
Pre-PA education		17 (47.2)
Conferences sponsored by professional organization		11 (30.6)
Inservices sponsored by employer		10 (27.8)
Other*		5 (13.9)
<b>C **Other' Responses</b>		
		<b><u>N (%)</u></b>
"learn from colleagues and patients"		1 (2.8)
"reading materials on own"		1 (2.8)

*Question five, cultural experiences.* The mean number of responses to this multiple response question was two, indicating that the mean number of experiences that participants have had that prepared them to work with patients from diverse cultural backgrounds. The minimum number of responses was one (10 participants or 27.8%) and the maximum was four (Table 6A); one (2.8%) responded to all four response possibilities, including 'other' (Table 6C). The most common experience was patient encounters, with 31 (86.1%) of participants including this response (Table 6C).



Table 6.

<b>Demographic Question 5</b>	
<b>Cultural Experiences</b>	
<b>A Total Number of Cultural Experiences</b>	
Mean	2
Median	2
Mode	3
Std. Deviation	1
Minimum	1
Maximum	4
<b>B Percent PAs with each Source of Cultural Experience</b>	
	<b><u>N (%)</u></b>
Patient encounters	31 (86.1)
Pre-PA work experience	21 (58.3)
Cultural immersion (live, work, travel, volunteer abroad)	18 (50.0)
Other*	3 (8.3)
<b>C **Other' Responses</b>	
	<b><u>N (%)</u></b>
"multicultural children adopted"	1 (2.8)
"media, journals"	1 (2.8)
"peace corp volunteer"	1 (2.8)
"reading about different cultures, seeking out information"	1 (2.8)

### *Bivariate Correlation*

Statistical analysis with bivariate correlation determined that Pearson's correlation coefficient was positive for questions one (years of practice) and five (cultural experience) and negative for question two (racial or ethnic background of patients) ( $r = -0.026$ ). None of these had a statistically significant relationship with IAPCC scores. Questions three (racial or ethnic background of co-workers) and four (cultural education) each had a statistically significant positive relationship with IAPCC scores. This data is presented below and in Table 7.

Table 7.

<b>Bivariate Correlation</b>					
<b>Relationship of IAPCC Scores to Demographic Data</b>					
<b><u>IAPCC Score</u></b>	<b><u>Question 1*</u></b>	<b><u>Question 2**</u></b>	<b><u>Question 3<sup>†</sup></u></b>	<b><u>Question 4<sup>†</sup></u></b>	<b><u>Question 5<sup>§</sup></u></b>
Pearson Correlation	0.029	-0.026	0.443***	0.347***	0.106
Significance (2-tailed)	0.869	0.879	0.007	0.038	0.537
*Years in Practice		†Cultural Education			
**Racial/Ethnic Background of Patients		§Cultural Experiences			
†Racial/Ethnic Background of Co-workers		***Correlation is significant at the 0.05 level (2-tailed).			

*IAPCC scores and question three.* A statistically significant ( $p = 0.007$ ) positive correlation ( $r = 0.443$ ) was found between IAPCC scores and the number of racial or ethnic backgrounds represented in a co-worker population. Therefore, participants who scored higher on the IAPCC have a more racially and ethnically diverse co-worker population than those who achieved lower IAPCC scores.

*IAPCC scores and question four.* The relationship between IAPCC scores and the number of cultural educational sources that included information on working with culturally diverse patients had a statistically significant ( $p = 0.038$ ) positive correlation ( $r = 0.347$ ). Therefore, participants who have received cultural education from a greater number of sources scored higher on the IAPCC.

*Cultural education and cultural knowledge subscore.* The relationship between the number of cultural education sources and the cultural knowledge subscore revealed a statistically significant ( $p = 0.036$ ) positive correlation ( $r = 0.351$ ). Therefore, participants who received more cultural education, achieved higher cultural knowledge subscores.

*Regression Analysis*

Analysis with linear regression showed that no variables were independently predictive of a high IAPCC score.

## Chapter 5, Discussion

*Summary*

Cultural diversity continues to expand within the United States. People of diverse cultural backgrounds have diverse expectations about the healthcare they should receive. When expectations of healthcare providers and patients conflict, quality of care, patient outcomes, and the healthcare economy suffer. Consequently, the need for culturally competent healthcare has risen to the attention of healthcare professionals. Physician assistants (PAs) have acknowledged the need to provide culturally competent care. This study aimed to determine the level of cultural competence in PAs and identify characteristics of PAs that are associated with cultural competence.

The literature reviewed in preparation for this study and presented in chapter two examined models of cultural competence development, measurements of cultural competence, and demographic characteristics associated with cultural competence. Within the literature review, the model and measurement of cultural competence used for this study was presented: The Process of Cultural Competence in the Delivery of Healthcare Services and, its companion measurement tool, the Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals. Recall that this model is comprised of five constructs (cultural awareness, cultural knowledge, cultural skill, cultural encounters, and cultural desire) which, when addressed individually and relative to one another, conceptualize the process through which one develops cultural competence. The IAPCC represents all constructs except cultural desire. The demographic characteristics that were examined in this study were also presented in

chapter two: years of practice, racial or ethnic background of patients and co-workers, cultural education, and cultural experiences.

Quantitative, descriptive methodology was used to measure cultural competence and describe the demographic characteristics associated with cultural competence in PAs who practice in the North Central region of the AAPA and attended the 2003 MAPA Spring CME conference. The results revealed that one (2.8%) participant was culturally competent and 35 (97.2%) were culturally aware. The demographics significantly associated with IAPCC scores were a racially or ethnically diverse co-worker population and cultural education.

### *Conclusions*

*IAPCC results.* Only one PA in this study was culturally competent, all others were culturally aware, as determined by IAPCC scoring. Scoring of the three participants' IAPCCs that were excluded from the study because of failure to complete all items, revealed that these participants would have also scored at the culturally aware level. Why did PAs almost uniformly score at the culturally aware level? To begin this discussion, it is probably necessary to discuss what it means to be at the culturally aware level of cultural competence. Campinha-Bacote (1998), the author of the model and measurement tool used in this study, defines cultural awareness, the construct; however, she does not define culturally aware, the level of cultural competence. Consideration of the construct of cultural awareness may be helpful.

The construct of cultural awareness, in basic terms, is recognition that cultural differences exist, as well as appreciation and sensitivity to cultural differences. Relative to healthcare, it involves the recognition and appreciation that culture impacts health.

Cultural awareness may be the “know that” stage that comes before the “know how” stage. In other words, one may know that culture impacts health, but does not have the knowledge or skills to integrate cultural awareness into healthcare delivery. Cultural awareness also involves the process of examining one’s own cultural background and biases towards other cultures.

Cultural awareness was evident in this group in which the majority scored high (50% or more of the possible points) on most IAPCC items which measured cultural awareness: 100% agreed or strongly agreed that there is a relationship between culture and health; 72.2% disagreed or strongly disagreed that they became frustrated when their values and beliefs clashed with their client’s values and beliefs; and 72.2% were aware or very aware of some of the stereotyping attitudes, preconceived notions, and feelings that they have toward members of other ethnic/cultural groups. The investigator believes that these results indicate that the majority of the participants recognize that cultural differences do exist and know that their patients’ cultural backgrounds play a role in their health and healthcare. However, to assume that participants have examined their cultural backgrounds, an important aspect of cultural awareness as described above, is probably too great of an assumption.

Participants did not score high on all cultural awareness items. The majority of participants scored low (50% or less of possible points) on one cultural awareness item: 58.3% disagreed or strongly disagreed that there are more differences within cultural groups than across cultural groups. This is an important aspect of cultural awareness to acknowledge; without understanding this concept, one may make assumptions about

another's cultural background based on outward appearance and behavior, rather than the culturally competent behavior of assessing individual patients.

Returning to the above question, why did PAs almost uniformly score at the culturally aware level? Perhaps the awareness of cultural differences has become obvious in the diverse society in which PAs live and practice. Potentially, the educational system in which PAs have matured, their relationships with patients that may reveal cultural differences, as well as influences of American culture (media, government, social advocacy groups, etc) ensure that a threshold of cultural consciousness is reached. This could help account for the observation that no participant was culturally incompetent, though it is not inconceivable that other factors may contribute as well.

While a certain threshold of cultural awareness may be easily achieved, moving beyond the level of culturally aware is probably difficult. It seems to require not only the acquisition of knowledge and skills, but opportunity and personal motivation to utilize knowledge and skills with culturally diverse patients. Therefore, through dedicated study and practice in an appropriate setting cultural competence may be attained – a substantial addition to an immense amount of knowledge and skills for which PAs are already responsible. This, taken with ease with which cultural awareness may be achieved, it is not surprising that participants generally scored higher in questions measuring cultural awareness than in those measuring the other constructs of cultural competence – cultural knowledge, skills, and encounters. Furthermore, it is then not surprising that more culturally competent PAs and culturally proficient PAs were not identified.

Examination of scores on IAPCC items that address the cultural knowledge, skills, and encounters constructs reveals that the majority of participants scored low in these constructs. This is evident in the items measuring the cultural knowledge construct: 94.4% of participants were only somewhat knowledgeable or not knowledgeable in the area of ethnic pharmacology; 61.1% were only somewhat knowledgeable or not knowledgeable about the world views, beliefs, practices and/or life ways of at least two cultural groups; 91.7% of participants were only somewhat knowledgeable or not knowledgeable in the area of biological variations among different ethnic groups; and 58.3% were only somewhat aware of specific diseases common among different ethnic groups. An item addressing the cultural skills construct had similar results: 86.1% were only somewhat aware or not aware of at least two cultural assessment tools to be used when assessing clients in a healthcare setting. Results on a cultural encounters item were similar: 77.8% were not involved with cultural/ethnic groups outside of their healthcare setting role. These findings seem to support the above conjecture that cultural awareness is for many the easiest entry point into the process of cultural competence; furthermore, it is likely the most difficult to move beyond, as obtainment of cultural knowledge, skills, and encounters requires an active pursuit.

The above conclusions are consistent with Pedersen's (1998) assertion that cultural awareness needs to precede cultural knowledge and skills. In contradiction to this, Pope-Davis, et al. (1994) studied cultural competence in nursing students with a self-report scale that measured four subscales of cultural competence: skills, knowledge, awareness, and relationship. Nursing students reported having cultural knowledge and skill, but did not report cultural awareness.



IAPCC results should be interpreted with caution. Two reasons for cautious interpretation will be discussed. The first concerns inconsistencies in participant responses to some IAPCC items and the content of the IAPCC. The second concerns the inability of the IAPCC to specifically measure culturally competent behavior.

The IAPCC contents may have been misconstrued by some participants, therefore, affecting results. This is evident in two items concerning cultural assessment tools. The vast majority of participants (30/36; 86.1%) were only somewhat aware or not aware of at least two cultural assessment tools to be used when assessing clients in a healthcare setting; however, 50% of participants were aware or very aware of the cultural limitations of existing assessment tools that are used with ethnic groups. It seems logical that if the majority of participants were not aware of existing cultural assessment tools, then they would also not be aware of the limitations of these assessment tools. The investigator believes that this inconsistency could have resulted from either participant carelessness, failure of the IAPCC to consistently clearly communicate, or a combination of the two. Participant carelessness was likely a result of reading too quickly and/or responding quickly to a seemingly familiar idea without really evaluating the contents and the accuracy of the response. The IAPCC failed to be consistent in referring to assessment tools – labeling these tools “assessment tools” in one item and “cultural assessment tools” in the other item. The investigator’s feeling is that the specificity of “cultural assessment tools” caused participants to react to an idea that was unfamiliar and respond appropriately. However, it is possible that the author of the IAPCC is referring to two different types of assessment tools, the difference of which may not be evident to the investigator of this study.

A significant concern with the IAPCC, and other tools that attempt to measure cultural competence, is the limited ability to measure behavior. Cultural competence, in the capacity that it is intended, is a behavior and not simply a score derived from a measurement tool. Therefore, the results do not inform us of whether or not the participants behave culturally competent, but inform us about whether or not participants have the awareness, knowledge, skills, and experience to provide culturally competent care. Furthermore, and possibly most important, do the IAPCC items adequately and accurately represent what is necessary to provide culturally competent care? For the purposes of this study, that is the assumption.

*Relationship of PA demographic characteristics to IAPCC results.* A diverse co-worker population and cultural education both had a statistically significant positive correlation with IAPCC scores. In other words, a more racially or ethnically diverse co-worker population was associated with a higher IAPCC score ( $r = +0.3$ ,  $p = 0.007$ ). Likewise, more sources of cultural education was associated with a higher IAPCC score ( $r = +0.4$ ,  $p = 0.038$ ). Although this study identified these statistically significant relationships, it is difficult to state whether the second objective of this study, to identify characteristics of PAs who are culturally competent, was met; only one PA was identified as culturally competent. However, since higher IAPCC scores were associated with greater co-worker diversity and more cultural education, it may be reasonable to assume that these relationships would continue to exist with some linearity as IAPCC scores increase. However, the investigator recognizes that other variables, possibly not yet identified, may be involved at higher levels of cultural competency. Years of practice,

racial or ethnic backgrounds of patients, and cultural experiences did not have statistically significant relationships with IAPCC scores.

The relationship identified between IAPCC scores and a racially or ethnically diverse co-worker population appears to be unique to this study; none of the literature reviewed examined this variable. The rationale to include it was that co-workers from diverse cultural backgrounds may provide PAs with insight about cultural implications on health, health behavior, and healthcare expectations of patients from particular cultural backgrounds. Diverse co-workers may also facilitate PAs' understanding of how to incorporate patients' cultural beliefs, values, and practices into their care. The relationship identified between IAPCC scores and a diverse co-worker population cannot confirm that culturally diverse co-workers have the impact on PAs as proposed above, but this newly identified relationship could certainly serve as a springboard for further study into the relationship. Other explanations should also be considered. This relationship may exist because PAs who have a high score on the IAPCC may seek employment within a diverse body of co-workers.

This study found a statistically significant positive correlation between cultural education and IAPCC scores. Bernal and Froman (1993) found a similar relationship among nurses in which cultural education was associated with high cultural self-efficacy. Pope-Davis, et al. (1994) found that nursing students perceived themselves to be competent with cultural knowledge and skills, despite not having cultural education. Interestingly, this was the same group of nurses, discussed above, who reported having cultural knowledge and skills without cultural awareness.

Why is more cultural education associated with higher IAPCC scores? The relationship between cultural education and high IAPCC scores was initially surprising; the majority of participants scored low on items measuring cultural knowledge. To scrutinize this relationship more closely, a subscore of cultural knowledge items on the IAPCC was calculated for each participant. Then bivariate correlation was used to study the cultural knowledge subscore with the total number of cultural education sources. This revealed a statistically significant ( $p = 0.036$ ) positive correlation ( $r = 0.351$ ). Therefore, participants who received more cultural education, achieved higher cultural knowledge subscores. Higher cultural knowledge subscores logically increase scores overall.

This study did not discover a statistically significant relationship between a racially or ethnically diverse patient population and IAPCC scores (cultural competence). In a similar study, Bernal and Froman (1993) identified a relationship: nurses who perceived themselves as having high cultural self-efficacy also had an ethnically diverse client case load. Relative to the examination of cultural experiences in this study, thirty-one (86%) participants marked that patient encounters were a form of cultural experience that prepared them to work with patients from diverse cultural backgrounds. One person specifically wrote (on the demographic questionnaire) that she “learns most from patients”. This may indicate that participants in this study might have a similar perception as the nurses in Bernal and Froman’s study: the patients they care for contribute to their sense of competency in caring for a diverse patient population. Although a diverse patient population may give one the perception of cultural

competence, it may not provide information needed to score high on the IAPCC, the contents of which require rather specific knowledge.

Cultural experiences did not have a significant relationship with IAPCC scores. St. Clair and McKenry (1999) found a relationship between cultural immersion (one form of cultural experience included in this study) and cultural competence. However, the relationship they identified between cultural competence and cultural immersion was not statistical; it was identified in student journaling completed throughout the immersion experience. Analysis of their journals revealed that they had begun to recognize their own ethnocentrism and its effect on their ability to provide culturally competent care. The different forms of analysis utilized in these studies makes them difficult to directly compare. However, the 1999 study demonstrates that cultural immersion can be a valuable experience in the development of cultural competence. It does appear that PAs in this study have sought cultural immersion experiences: 18 (50%) participants in this study have had a cultural immersion experience (live, work, travel, or volunteer abroad). However, wisdom gained from cultural immersion may not necessarily contribute to higher IAPCC scores.

Finally, years of practice was not significantly related to IAPCC scores. Bernal and Froman (1993) also studied years of practice, but did not discuss its relationship to cultural self-efficacy. If the previous conclusion that cultural competence is achieved through an active pursuit of cultural knowledge, skills, and encounters, and not simply achieved by career longevity, then it is not surprising that more years of practice was not related to IAPCC scores.

The following discussion will focus on participant responses to the ‘other’ option in demographic questions two and three, racial or ethnic backgrounds of patients and co-workers. The “canned” responses were broad racial categories typically found in tools such as the U.S. Census Bureau uses to survey the population. The ‘other’ option created the possibility in which participants could enter a response not adequately represented by the available response choices. The responses to the ‘other’ category are documented in Tables 3C and 4C.

The most common ‘other’ response to questions two and three was Somalian. Is it incorrect to place this group into the broader category of Black/African American? True, Somalians are not African Americans, but Black appears appropriate. Two other responses were Hmong and Vietnamese. It does not seem incorrect to place these two groups in the Asian/Pacific Islander category. Europeans, Sudanese, Kurds, and Bosnians were also included as ‘other’ responses. What caused participants to respond with such specificity? The investigator believes that this degree of specificity is likely a result of at least two factors: 1) some level of cultural sophistication recognizing that a broad racial category does not adequately represent a particular ethnic group and 2) the relationship that PAs have with patients provides insight into the ethnic or cultural lives of their patients. Once one recognizes differences associated with ethnicity, a broad racial category is no longer adequately representative. The investigator, furthermore, believes that representing patients’ ethnicities, rather than their racial category, may be a demonstration of deference towards their patients’ uniqueness relative to their cultural backgrounds.

The two objectives of this study were 1) to identify PAs that are culturally competent and 2) to identify characteristics that are associated with cultural competence. This study identified one PA who was culturally competent. What were the characteristics of this PA? This PA had practiced for 1.5 years. The number of racial or ethnic backgrounds of patients (question two) totaled five (of six) and included Asian/Pacific Islander, Hispanic/Latino(a), Black/African American, White/Caucasian, and 'other', in which Somalian and African were specified. Native American and Alaskan native patients were not included in the population served by this PA. The number of racial or ethnic backgrounds of co-workers totaled five (of six) and included the same responses as question two with the exception of African. Sources of cultural education totaled four (of six) and included pre-PA education, PA program, continuing medical education, and 'other', in which "reading materials on own" was specified. Sources of cultural education did not include inservices sponsored by employer or conferences sponsored by professional organizations. Cultural experiences totaled four (of four) and included pre-PA work experience, cultural immersion, patient encounters, and 'other', in which "reading about different cultures – seek out the information" was specified. A star was drawn near patient encounters, seemingly indicating that this PA felt that patient encounters contributed strongly.

As identified in the 'other' responses to cultural education and experience, this PA identified an active process of obtaining information, and perhaps skills, that have presumptively been effective in achieving a culturally competent IAPCC score. The responses also identify personal motivation. This is, again, consistent with the

conclusion drawn above, that much of what is required in the development of cultural competence is obtained through active pursuit.

How did the lower scoring participant contrast with the highest scoring? The lowest scoring participant had practiced for seven years (versus 1.5). Two (versus five) racial or ethnic backgrounds of patients were reported: White/Caucasian and Native American or Alaskan Native. One (versus five) racial or ethnic background within the co-worker population was identified: White/Caucasian. One (versus six) cultural education source, PA program, was reported. One (versus four) cultural experience, patient encounters, was reported. The demographic characteristics of the PA with the lowest score are consistent with the statistical relationships identified between the demographics and IAPCC scores.

The final discussion of the results will explore the fact that none of the variables were independently predictive of a higher IAPCC score. This result is conceptually analogous to the model used in this study. The model conceptualizes cultural competence as a complex whole: intricate relationships between five constructs, each of which are valuable constituents, but taken alone, inadequate for the development of cultural competence. Similarly, the characteristics predictive of higher IAPCC scores do not predict a higher IAPCC score independent of the other characteristics. This may represent a relationship between the collection of variables, or a subset within, that is fundamental to predicting a higher IAPCC score.

#### *Final Conclusion and Recommendations*

The overwhelming majority of PAs in this study were culturally aware, as determined by the IAPCC. This label appears appropriate; it is consistent the



achievement of higher scores on the IAPCC items addressing cultural awareness than in those addressing cultural knowledge, skills, or encounters. It may be that moving beyond cultural awareness toward cultural competence presents a greater personal challenge; attainment of knowledge, skills, and encounters seems to require a more deliberate process than cultural awareness. Relative to the model on which this study was based, herein likely lies the importance of cultural desire – the motivation from within an individual to develop the ability to effectively work with patients from diverse cultural backgrounds.

The association of the demographic characteristics to IAPCC scores is informative. That cultural education predicts a higher IAPCC score seems to represent that some deliberate action has been taken and, for some, rewarded: on behalf of educators who brought cultural education to the “classroom” and on behalf of PAs who integrated the education into their scope of knowledge. That a diverse co-worker population predicts a higher IAPCC score is somewhat less clear. The following questions remain. Does working within a diverse co-worker population increase cultural competence? Is a PA who is more culturally competent likely to work within a population of diverse co-workers? Does the combination of desiring to be or being culturally competent and working with a diverse co-worker population increase cultural competence?

*Recommendations.* The need for cultural competence in healthcare has been well established within the literature and within the agenda of the U.S. government and professional organizations. This study was done in recognition of the need for culturally competent healthcare providers, specifically PAs. It provides a description of cultural

competence in a small sample of PAs. To further describe cultural competence in PAs, the investigator recommends that this study, or similar studies, be repeated with a larger sample. Investigators interested in continuing cultural competence measurement with the IAPCC will have an updated IAPCC available which includes items that address the fifth construct, cultural desire. Whether the investigator of this study would use the IAPCC again would depend on the availability of a tool with greater ability to measure the behavioral aspects of cultural competence.

Physician assistant demographics associated with cultural competence should be studied further, but with greater specificity. More sources of cultural education was associated with higher IAPCC scores; however, more specific information about the education that culturally competent PAs have received may be helpful in developing future cultural education for healthcare providers. A more racially/ethnically diverse co-worker population was also associated with higher IAPCC scores. Results from this study do not establish a clear causal relationship between racially/ethnically diverse co-workers and cultural competence in PAs. The investigator believes that this relationship should be included in future demographic studies of culturally competent PAs. As discussed earlier, the results do not reveal whether racially/ethnically diverse co-workers increase cultural competence in PAs or if PAs who achieve cultural competence seek work among diverse co-workers. Therefore, more specific information about such PAs should be obtained to address these potential relationships. Interviews with culturally competent PAs may also help to reveal information about their personal endeavors toward cultural competence.

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## Appendix A

## Inventory For Assessing The Process Of Cultural Competence (IAPCC) Among Healthcare Professionals

(Campinha-Bacote, 1997)

1. Cultural competence mainly refers to one's competency concerning different ethnic groups.  
STRONGLY AGREE   AGREE   DISAGREE   STRONGLY DISAGREE
2. I feel that cultural competence is an ongoing process.  
STRONGLY AGREE   AGREE   DISAGREE   STRONGLY DISAGREE
3. Factors such as geographical location, gender, religious affiliation, sexual orientation, occupation are not considered areas of concern when seeking cultural competence.  
STRONGLY AGREE   AGREE   DISAGREE   STRONGLY DISAGREE
4. I feel that there is a relationship between culture and health.  
STRONGLY AGREE   AGREE   DISAGREE   STRONGLY DISAGREE
5. I am knowledgeable in the area of ethnic pharmacology.  
VERY KNOWLEDGEABLE   KNOWLEDGEABLE   SOMEWHAT KNOWLEDGEABLE   NOT KNOWLEDGEABLE
6. I am knowledgeable about the world views, beliefs, practices and/or life ways of at least two cultural groups.  
VERY KNOWLEDGEABLE   KNOWLEDGEABLE   SOMEWHAT KNOWLEDGEABLE   NOT KNOWLEDGEABLE
7. I am aware of the cultural limitations of existing assessment tools that are used with ethnic groups.  
VERY AWARE   AWARE   SOMEWHAT AWARE   NOT AWARE
8. I am knowledgeable in the area of biological variations among different ethnic groups.  
VERY KNOWLEDGEABLE   KNOWLEDGEABLE   SOMEWHAT KNOWLEDGEABLE   NOT KNOWLEDGEABLE
9. Anatomical and physiological variations do not exist in different ethnic groups.  
STRONGLY AGREE   AGREE   DISAGREE   STRONGLY DISAGREE
10. I am aware of specific diseases common among different ethnic groups.  
VERY AWARE   AWARE   SOMEWHAT AWARE   NOT AWARE
11. I seek out educational, consultation, and/or training experiences to enhance my understanding and effectiveness with culturally and ethnically diverse clients.  
STRONGLY AGREE   AGREE   DISAGREE   STRONGLY DISAGREE
12. I am aware of at least 2 institutional barriers that prevent cultural/ethnic groups from seeking healthcare services.  
VERY AWARE   AWARE   SOMEWHAT AWARE   NOT AWARE
13. I recognize the limits of my competence when interacting with culturally/ethnically diverse clients.  
STRONGLY AGREE   AGREE   DISAGREE   STRONGLY DISAGREE
14. When my values and beliefs "clash" with my client's values and beliefs I become frustrated.  
STRONGLY AGREE   AGREE   DISAGREE   STRONGLY DISAGREE
15. I am aware of some of the stereotyping attitudes, preconceived notions and feelings that I have toward members of other ethnic/cultural groups.  
VERY AWARE   AWARE   SOMEWHAT AWARE   NOT AWARE
16. I am aware of at least 2 cultural assessment tools to be used when assessing clients in a healthcare setting.  
VERY AWARE   AWARE   SOMEWHAT AWARE   NOT AWARE
17. It is more important to conduct a cultural assessment on ethnically diverse clients than with other clients.  
STRONGLY AGREE   AGREE   DISAGREE   STRONGLY DISAGREE
18. I feel comfortable in asking questions that relate to the client's ethnic/cultural background.  
VERY COMFORTABLE   COMFORTABLE   SOMEWHAT COMFORTABLE   NOT COMFORTABLE
19. I am involved with cultural/ethnic groups outside of my healthcare setting role.  
VERY INVOLVED   INVOLVED   SOMEWHAT INVOLVED   NOT INVOLVED
20. I believe that there are more differences within cultural groups than across cultural groups.  
STRONGLY AGREE   AGREE   DISAGREE   STRONGLY DISAGREE

Campinha-Bacote (1998)  
Printed with Permission from  
Transcultural C.A.R.E Associates

## Appendix B



**Campinha-Bacote,**

D., RN, CS, CNS, CTN, FAAN

Transcultural Consultant

DATE: January 13, 2003  
 TO: LeAnn Burgher  
 FROM: Dr. Campinha-Bacote, President  
 Transcultural C.A.R.E. Associates

RE: Letter of Permission To Use IAPCC

This letter grants permission to LeAnn Burgher use my tool, "*Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals*," on page 63 of the booklet, "*The Process of Cultural Competence in the Delivery of Healthcare Services: A Culturally Competent Model of Care*" (1998) 3rd edition. However, permission to use my tool is limited to use when LeAnn Burgher uses it as part of her thesis project at Augsburg College to assess cultural competence among physician assistants.

LeAnn Burgher agrees to the restriction that the IAPCC cannot be used in an e-mailing, as an online format or as any other distribution of the IAPCC that does not allow her to have direct control over each individual IAPCC distributed. Therefore, LeAnn Burgher agrees to administer the IAPCC when subjects are in her presence. LeAnn Burgher also agrees to collect each IAPCC form, after subjects have completed the IAPCC.

Permission to use my instrument in future projects (i.e.; thesis, CD-ROMs, Internet/web sites, dissertations, publications, workshops, presentations, handouts, audio-visual materials), must be sought in writing to me by LeAnn Burgher .

As part of this permission agreement, it is expected that LeAnn Burgher will send me a copy of the analysis of IAPCC findings.

LeAnn Burgher will use the following citation when citing my tool:

Campinha-Bacote (1998)  
 Printed with permission from  
 Transcultural C.A.R.E. Associates

Thank you for being sensitive and aware of the legal copyright status of this tool

13) 469-1664

1108 Huntwicke Place  
 Cincinnati, Ohio 45241



Appendix C

*MAPA*

Bev Kimball PA-C President  
14258 Raven Street NW  
Andover, MN 55304

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November 19, 2002

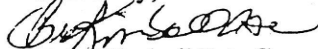
To Whom it May Concern,

LeAnn Burgher has requested permission to access the Minnesota Academy of Physician Assistants mailing list to facilitate her thesis work.

Today I am sending LeAnn the "MAPA Mailing List Rental Agreement For Student Members of MAPA". When we have had an opportunity to review the project that LeAnn is planning to do we will be able to make a final determination on her request. I do not anticipate any problems.

Once we have reviewed the survey tool and LeAnn has signed the agreement, mailing labels for consenting MAPA members will be made available.

Sincerely,



Bev Kimball PA-C  
MAPA President 2002-2004

Appendix D

Institutional Research Board  
Augsburg College  
Box 107

March 26, 2003

To: LeeAnn Burgher

From: Norma C. Noonan, Chair



I am pleased to inform you that the IRB has approved your application the project: **Cultural Competence in Physician Assistants and Their Associated Characteristics**

as submitted

as revised with the addition of the revised consent form

with the following conditions:

Your IRB approval number which should be noted in your written project and in any major documents alluding to the research project is as follows:

**2003-20-3**

I wish you success with your project. If you have any questions, you may contact me: 612-330-1198 or [noonan@augsborg.edu](mailto:noonan@augsborg.edu).

c. Dr. Donna DeGracia

## Appendix E

## Physician Assistant Demographic Questionnaire

How many years have you practiced as a PA? \_\_\_\_\_

What are the racial or ethnic backgrounds of your patients? Please check all that apply.

- |                                                    |                                                               |
|----------------------------------------------------|---------------------------------------------------------------|
| a. <input type="checkbox"/> Asian/Pacific Islander | b. <input type="checkbox"/> Hispanic/Latino(a)                |
| c. <input type="checkbox"/> Black/African American | d. <input type="checkbox"/> Native American or Alaskan native |
| e. <input type="checkbox"/> White/Caucasian        | f. <input type="checkbox"/> Other (please specify) _____      |

What are the racial or ethnic backgrounds of your co-workers? Please check all that apply.

- |                                                    |                                                               |
|----------------------------------------------------|---------------------------------------------------------------|
| a. <input type="checkbox"/> Asian/Pacific Islander | b. <input type="checkbox"/> Hispanic/Latino(a)                |
| c. <input type="checkbox"/> Black/African American | d. <input type="checkbox"/> Native American or Alaskan native |
| e. <input type="checkbox"/> White/Caucasian        | f. <input type="checkbox"/> Other (please specify) _____      |

What sources of education included information on working with patients from diverse cultural backgrounds? Please check all that apply.

- |                                                              |                                                                                 |
|--------------------------------------------------------------|---------------------------------------------------------------------------------|
| a. <input type="checkbox"/> Pre-PA education                 | b. <input type="checkbox"/> PA program                                          |
| c. <input type="checkbox"/> Inservices sponsored by employer | d. <input type="checkbox"/> Conferences sponsored by professional organizations |
| e. <input type="checkbox"/> Continuing Medical Education     | f. <input type="checkbox"/> Other (please specify) _____                        |

What experiences prepared you to work with patients from diverse cultural backgrounds? Please check all that apply.

- |                                                    |                                                                                       |
|----------------------------------------------------|---------------------------------------------------------------------------------------|
| a. <input type="checkbox"/> Pre-PA work experience | b. <input type="checkbox"/> Cultural immersion (live, work, travel, volunteer abroad) |
| c. <input type="checkbox"/> Patient encounters     | d. <input type="checkbox"/> Other (please specify) _____                              |

Thank you for your participation!!!

## Appendix F

## IAPCC Scoring Key

## ITEMS #2, 4, 11, 13, 20

- 4 pts. = Strongly Agree
- 3 pts. = Agree
- 2 pts. = Disagree
- 1 pt. = Strongly Disagree

## ITEMS #1, 3, 9, 14, 17

- 4 pts. = Strongly Disagree
- 3 pts. = Disagree
- 2 pts. = Agree
- 1 pt. = Strongly Agree

## ITEMS #5, 6, 8,

- 4 pts. = Very Knowledgeable
- 3 pts. = Knowledgeable
- 2 pts. = Somewhat Knowledgeable
- 1 pt. = Not Knowledgeable

## ITEMS #7, 10, 12, 15, 16

- 4 pts. = Very Aware
- 3 pts. = Aware
- 2 pts. = Somewhat Aware
- 1 pt. = Not Aware

## ITEMS #19

- 4 pts. = Very Involved
- 3 pts. = Involved
- 2 pts. = Somewhat Involved
- 1 pt. = Not Involved

## ITEMS #18

- 4 pts. = Very Comfortable
- 3 pts. = Comfortable
- 2 pts. = Somewhat Comfortable
- 1 pt. = Not Comfortable

The extent to which a healthcare professional is culturally competent is indicated by the following category ranges:

Culturally Proficient	75-80
Culturally Competent	60-74
Culturally Aware	40-59
Culturally Incompetent	20-39

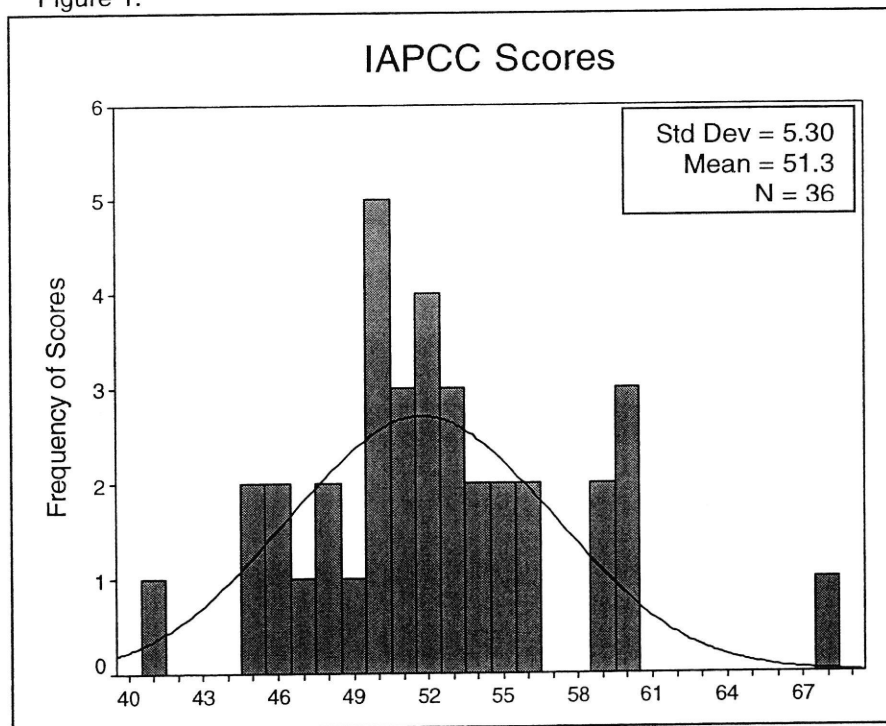
Campinha-Bacote (1998)  
 Printed with Permission from  
 Transcultural C.A.R.E Associates

Appendix G

Table 1.

<b>IAPCC Results (N=36)</b>	
<b>IAPCC Scores</b>	
Mean	51.3
Median	51
Mode	49
Std. Deviation	5.3
Minimum	40
Maximum	67
<b>Level of Cultural Competence</b>	
	<b><u>N (%)</u></b>
Culturally incompetent	0
Culturally aware	35 (97.2%)
Culturally competent	1 (2.8%)
Culturally proficient	0

Figure 1.



## Appendix H

Table 3.

<b>Demographic Question 2</b>		
<b>Racial or Ethnic Background of Patients</b>		
A	<b>Total Number of Racial or Ethnic Backgrounds Represented in Patient Population</b>	
	Mean	3.3
	Median	3
	Mode	1 <sup>a</sup>
	Std. Deviation	8.6
	Minimum	0.5
	Maximum	28
	<sup>a</sup> more than 1 mode	
B	<b>Percent PAs with Racial or Ethnic Background Represented in Patient Population</b>	
		<b><u>N (%)</u></b>
	White/Caucasian	34 (94.4)
	Hispanic/Latino(a)	22 (61.1)
	Black/African-American	21 (58.3)
	Asian/Pacific Islander	17 (47.2)
	Native American or Alaskan Native	17 (47.2)
Other*	10 (27.8)	
C	<b>*'Other' responses</b>	
		<b><u>N (%)</u></b>
	Somalian	5 (13.8)
	Hmong	1 (2.8)
	African	1 (2.8)
	Sudanese	1 (2.8)
	Kurd	1 (2.8)
	Bosnian	1 (2.8)
	Vietnamese	1 (2.8)
	European	1 (2.8)
"I see many international students' families at a free medical clinic in..."	1 (2.8)	

Table 4.

<b>Question #3</b>	
<b>A Total Number of Racial or Ethnic Backgrounds Represented in Co-worker Population</b>	
Mean	1.7
Median	1
Mode	1
Std. Deviation	1.1
Minimum	1
Maximum	5
<b>B Percent PAs with Racial or Ethnic Background Represented in Co-worker Population</b>	
	<b><u>N (%)</u></b>
White/Caucasian	34 (94.4)
Black/African-American	12 (33.3)
Hispanic/Latino(a)	6 (16.7)
Asian/Pacific Islander	4 (11.1)
Native American or Alaskan Native	4 (11.1)
Other*	1 (2.8)
<b>C *'Other' Responses</b>	
	<b><u>N (%)</u></b>
Somalian	1 (2.8)

Table 5.

<b>Question #4</b>	
<b>A Total Number of Cultural Education Sources</b>	
Mean	2.4
Median	3
Mode	3
Std. Deviation	1.4
Minimum	1
Maximum	5
<b>B Percent PAs with each Source of Cultural Education</b>	
	<b><u>N (%)</u></b>
PA program	25 (69.4)
Continuing medical education	19 (52.8)
Pre-PA education	17 (47.2)
Conferences sponsored by professional organization	11 (30.6)
Inservices sponsored by employer	10 (27.8)
Other*	5 (13.9)
<b>C *'Other' Responses</b>	
	<b><u>N (%)</u></b>
"learn from colleagues and patients"	1 (2.8)
"reading materials on own"	1 (2.8)



Table 6.

<b>Question #5</b>		
<b>A</b>	<b>Total Number of Cultural Experiences</b>	
	Mean	2
	Median	2
	Mode	3
	Std. Deviation	1
	Minimum	1
	Maximum	4
<b>B</b>	<b>Percent PAs with each Source of Cultural Experience</b>	<b><u>N (%)</u></b>
	Patient encounters	31 (86.1)
	Pre-PA work experience	21 (58.3)
	Cultural immersion (live, work, travel, volunteer abroad)	18 (50.0)
	Other*	3 (8.3)
<b>C</b>	<b>*'Other' Responses</b>	<b><u>N (%)</u></b>
	"multicultural children adopted"	1 (2.8)
	"media, journals"	1 (2.8)
	"peace corp volunteer"	1 (2.8)
	"reading about different cultures, seeking out information"	1 (2.8)