

APPROVAL SHEET

Title of Dissertation: “A Self-Assessment of Cultural Competence in Military Mental Health Providers”

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Doctor of Philosophy Degree
2008

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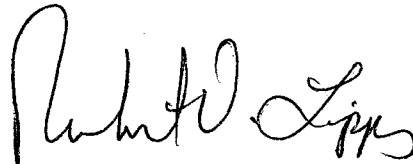
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A handwritten signature in black ink, appearing to read "Robert D. Lippy". The signature is fluid and cursive, with the first name "Robert" and last name "Lippy" being the most prominent parts.

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ABSTRACT

Title of Dissertation: A Self-Assessment of Cultural Competence in Military Mental
Health Providers

Robert D. Lippy, Doctor of Philosophy, 2008

Dissertation directed by: David S. Krantz, Ph.D.
Professor, Chair

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The population of racial and ethnic minorities in the U.S. has grown substantially over the last several years. The military is even more racially and ethnically diverse than the general U.S. population. In addition, in this post-9/11 era, military health care providers are increasingly deployed to geographically and culturally diverse regions around the world to support the ongoing global war on terror. It has become clear that to meet the needs of their increasingly diverse patient population, military mental health providers need to be culturally competent. Many professional organizations, including the military, believe in and support cultural competence. Although researchers have been studying cultural competence for decades, research on cultural competency in military providers is nonexistent. Therefore, the purpose of this study was to determine baseline levels and predictors of cultural competence in active duty military mental health providers.

Potential respondents were recruited via e-mail list serves of various professional mental health organization and military treatment facilities. One hundred fourteen (114) active duty psychologists, psychiatrists, and clinical social workers responded to an

online web-based assessment that included a cultural competence questionnaire, a questionnaire of socially desirable responding, and various background and demographic questions. The respondent sample was relatively representative of the study population of active duty military mental health workers.

Mean cultural competence scores of the active duty respondents revealed that they rated themselves as more culturally competent than their civilian peers. Hierarchical multiple regression analysis revealed that cultural competence training and prior experience providing health care to ethnic minorities were both significant independent positive predictors of providers' self-reported cultural competence (medium and small effect sizes, respectively), above and beyond socially desirable responding, gender, number of years of practice as a uniformed mental health provider, and ethnicity. Exploratory regression analyses also revealed that providers' color-blind racial attitudes were a significant and independent negative predictor of provider's cultural competence, indicating that the more providers espoused color-blind racial attitudes, the less culturally competent they rated themselves. These findings are consistent with previous studies of civilian mental health providers. Additional analyses revealed specialty differences in cultural competence that were largely accounted for by cultural competence training.

These findings extend the literature to include military providers. These results also indicate that provider color-blind racial ideology is an important component of cultural competence that warrants further study. Given these findings, military mental health providers appear ready to meet the challenges of an increased diversity of patients and practice settings. However, given the limitations of self-report cultural competence measures, future studies should be conducted using more sophisticated methodology.

TITLE PAGE

**A SELF-ASSESSMENT OF CULTURAL COMPETENCE IN MILITARY
MENTAL HEALTH PROVIDERS**

by

Robert D. Lippy

Dissertation submitted to the Faculty of the
Medical and Clinical Psychology Graduate Program
Uniformed Services University of the Health Sciences
In partial fulfillment of the requirements for the degree of
Doctor of Philosophy, 2008

ACKNOWLEDGEMENTS

A debt of gratitude and heartfelt thanks goes to David Krantz, PhD, my advisor and mentor. Thank you for taking me on as a new graduate student in your lab and for allowing me to conduct my doctoral research on area closer to my personal interest.

I would also like to thank my dissertation committee: Dr. Tracy Sbrocco (chair), Dr. Richard Tanenbaum, Dr. Lauren Hill, and Dr. Thomas Grieger. Your feedback and guidance in this long process were invaluable. Special thanks to the departmental faculty who have been instrumental in my graduate training: Dr. Neil Grunberg, Dr. Michael Feuerstein, Dr. Willem Kop, Dr. Wendy Law, Dr. Kelly Rohan, Dr. Meredith Cary, and Dr. Martha Faraday.

The last few years of my graduate training proved to be especially challenging and life-changing. To Drs. Krantz, Sbrocco, Tanenbaum, Hill, Grunberg, Getka, and Podd, I want to say that your support and belief in me during that difficult time is something that I will never forget and means more to me than you will probably ever know – thank you! I hope I will make you proud.

Mostly I want to thank my family. I want to thank my parents for “laying the foundation” and instilling in me the important values of hard work, perseverance, and humility. My deepest gratitude goes to my wife and two sons for their patience, understanding, and support during this arduous graduate school process. I especially want to thank my wife Angela. I truly would not be where I am today without her unconditional love and support, personal sacrifice, and belief in me, not only during the last six years of my graduate training, but throughout the last 19 years of my military career. She deserves as much credit, if not more, for my completion of this milestone.

Any of my academic or career accomplishments pale in comparison to her personal character and attributes, and to what we have accomplished together as husband and wife.

I love you honey!

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INTRODUCTION

Brief Introduction and Project Overview

Over the last several decades, the United States has become increasingly racially and ethnically diverse. Ethnic minorities in the U.S. continue to grow and are expected to become the statistical majority by approximately 2050 (U.S. Bureau of Census, 1996).

The U.S. military is an all-volunteer force and would be expected to mirror the racial and ethnic makeup of the U.S. population. In truth, the Armed Forces are more diverse than the general population and contain an even higher percentage of ethnic minorities (36%) than does the U.S. population (29%) (Military Family Resource Center, 2003). The percentage of ethnic minorities in the military has risen by over 7% since 1990, paralleling the upward trend in the U.S. civilian population (Military Family Resource Center, 2003).

In addition to the increasingly ethnically diverse patient population, military mental health professionals face other challenges in this post-9/11 era. Military medicine is seeing a shift in how care is provided. Military medicine is increasingly being forced from the bounds of traditional practice in major treatment facilities to service in operational environments. Because of the current global war on terrorism (GWOT), military professionals now practice in a wide variety of regions across the globe, from Iraq and Afghanistan to Cuba and the Horn of Africa region (Kennedy et al., 2007). With this shift in practice and the ethnic diversification of the patient population, the ability of military providers to recognize and to adjust to cultural differences is critical for the readiness and quality of military medicine (Lippy, 2007). It has become clear that military providers must be “culturally competent” (i.e., possess the knowledge, skills, and

attitudes to work effectively in cross-cultural situations [Cross et al., 1989]). In addition, the increased globalization of society requires that military members are able to operate in a multicultural environment (Navy Knowledge Online, 2008).

The concept of culturally competent mental health providers has been studied for several decades (Worthington et al., 2007). Most of the published research on cultural competency comes from the sub-field of counseling psychology. Cultural competence also has been studied in nursing and medicine, but the largest amount of research on the topic continues to occur in counseling psychology. However, a focus on cultural competence has gained ground in the medical field, especially in Family Medicine.

Despite the clear need for culturally competent military mental health providers, cultural competence in military mental health has never been assessed. Therefore, the purpose of this project was to conduct a baseline assessment of the cultural competence of military mental health providers. In addition, this study assessed several predictors of cultural competence in a sample of military mental health providers. This information could be used to inform military leaders and policy-makers of the current status of the cultural competence of military mental health providers and of potentially useful interventions and strategies to increase providers' cultural competence. Increasing the cultural competence of mental health providers has the potential to improve general clinical competence. The benefits of enhanced competence include increased patient satisfaction, better treatment adherence, and more effective mental health care.

Before discussing the methodology, results and discussion of the results of the study, we will outline the implications of the changing U.S. demographics on the military mental health care system. A case will be made using published research for the

importance and implications of culturally competent providers. We will then discuss definitions, models, and measures of cultural competence. This discussion will be followed by a review of the literature on correlates of cultural competence, with an emphasis on the association among cultural competence and cultural competence training and cross-cultural clinical experience. The introduction will conclude with our proposal for conducting an assessment of cultural competence and determining predictors of cultural competence in military mental health providers.

The Increasing Ethnic Diversity of the United States

The United States population is steadily becoming more racially and ethnically diverse. Racial and ethnic minorities (i.e., African Americans, Asian Americans, Latinos, Native Americans) currently account for approximately 29 percent of the total U.S. population (U.S. Bureau of Census, 1996), with some ethnic groups now comprising the majority in some regions. With minority Americans expected to comprise more than 40 percent of the U.S. population by 2035 and 47 percent by 2050 (U.S. Bureau of the Census 1996), addressing their health needs has become an increasingly visible public policy goal (Agency for Healthcare Policy and Research, 2005).

The Increasing Ethnic Diversity of the U.S. Military

The U.S. military is an all-volunteer force that obtains its personnel from the general U.S. population. Therefore, logic dictates that military personnel demographics should mirror the civilian sector (Lippy, 2007). However, the percentage of minorities in the military is actually much larger than in the civilian population, with over one-third (35.8% vs. 28.9% in the general population), or 507,418 of active duty members identifying themselves as an ethnic minority (i.e., African American, Latino, Native

American/Alaskan Native, Asian American/Pacific Islander, or multi-racial; Military Family Resource Center [MFRC], 2003). Similar to the trend in the civilian population, the percent of active duty members who identify themselves as a minority has increased in the past 13 years from 9.1% of officers and 28.2% of enlisted in 1990, to 20.5% of officers and 38.7% of enlisted members in 2003 (MFRC, 2003). The Army has the largest percentage of active duty ethnic minorities at 40.7%, followed by the Navy with 38.6%, the Marine Corps with 27.7%, and the Air Force with 27.7% (MFRC, 2003).

Although the overall ratio of officer to enlisted personnel in the entire active duty force is one officer for every 5.2 enlisted personnel, the overall ratio of minority officers (46,604) to minority enlisted personnel (460,814) is one minority officer for every 9.9 minority enlisted personnel. Ethnic minorities account for only 15.6% of all active duty officers, but represent 38.8% of all active duty enlisted personnel. The ratio varies across the services with the Air Force having one minority officer for every 6.9 enlisted personnel, the Army having one minority officer for every 9.3 minority enlisted personnel, the Navy having one minority officer for every 12.6 minority enlisted personnel, and the Marine Corps having one minority officer for every 17.1 minority enlisted personnel (MFRC, 2003).

The Shortage of Ethnic Minority Providers

Civilian Providers

Because of the potential benefit of having shared worldviews and cultural experiences, some (e.g., Saha et al., 2000; Komaromy et al., 1996; Xu et al., 1997) have argued for increased efforts to recruit and retain ethnic minority providers to meet the needs and preferences of the increasingly ethnically diverse patient population. Despite this

increase in diversity in the U.S. population, ethnic minorities continue to be underrepresented in the health care professions (The Sullivan Commission, 2003; Council on Graduate Medical Education, 2005). Recent estimates reveal that ethnic minorities only account for approximately 14% of all physicians in the U.S. (The Sullivan Commission, 2003). This shortage also exists in other medical fields including Nursing (ethnic minorities = 9%) and Dentistry (ethnic minorities = 5%) (The Sullivan Commission, 2003). Although ethnic minority enrollment in medical schools increased in the 1960s, 70s, and 80s, it has recently started to decline (The Sullivan Commission, 2003). Therefore, the gap between ethnic minority providers and patients is likely to continue to grow in the foreseeable future.

In addition, the National Institute of Mental Health (NIMH) has documented the underrepresentation of ethnic minorities researchers (National Advisory Mental Health Council Workgroup, 2001). Ethnic minorities help to diversify the workforce of scientists whose job it is to improve health care by increasing our knowledge of strategies for reducing disparities in care. In addition, ethnic minorities continue to be underrepresented in research samples, prompting the NIH in 1994 to institute a requirement for all researchers receiving NIH funding to include ethnic minorities in their research protocols to the fullest extent possible, and to report on differences among racial groups (USDHHS, 2000). Because of the underrepresentation of ethnic minorities in research samples, there is limited generalizability to this population for a variety of empirically supported treatments (USDHHS, 2000).

Recently, a national leadership symposium was held to discuss strategies for increasing the representation of ethnic minorities across the health professions (National Leadership Symposium on Increasing Diversity in the Health Professions, 2007). This symposium invited leaders from various institutions identified for their success in recruiting,

retaining, and promoting ethnic minorities to share and discuss their diversification strategies. Some of the key strategies included having strong institutional leadership support, developing stronger and larger pipeline programs, creating a culturally supportive environment within institutions, and incorporating workforce and student diversity into accreditation requirements.

Military Providers

Ethnic minorities also are underrepresented in the military health care system. Although ethnic minorities make up a slightly higher percentage of all military physicians than their civilian counterparts (i.e., 15.8% vs. 14.2%; DoD, 2006), the statistical gap between minority physicians and their minority patients is larger in the military health system than in the general population (i.e., 20.2 vs. 14.8 percentage points). Ethnic minorities are also underrepresented among military mental health providers (i.e., psychologists, psychiatrists, clinical social workers), with ethnic minorities comprising only 13.7% of all active duty mental health providers (Defense Management Data Center [DMDC], 2007). Although active duty social workers appear the closest to reflecting their U.S. population counterparts (ethnic minorities = 24.1%), active duty psychiatrists and psychologists remain seriously under-representative of ethnic minorities in the U.S. population (11.3% and 8.3%, respectively; DMDC, 2007).

In sum, the current state of the military health care system can be characterized as mostly Caucasian providers providing care to a more ethnically diverse patient population (Lippy, 2007). This situation will likely be exacerbated given the current trends in the ethnic minority population and the continued shortage of ethnic minority providers.

Multicultural Experiences of Military Providers

Kennedy and colleagues (2007) recently documented that military psychologists are increasingly seeing diverse patient populations and having increasing multicultural experiences. Among 86 survey respondents, active duty psychologists reported seeing many active duty patients of a variety of ethnicities. Specifically, psychologists reported seeing African Americans most frequently, followed by Latinos, Asian Americans and Native Americans/Pacific Islanders, respectively. These trends were generally consistent with the demographic makeup of active duty military populations (MFRC, 2003). These trends in patient ethnicity also were reported for U.S. civilians (mostly dependents of active duty members) seen by these psychologists. Respondents reported significant contact with non-U.S. citizen active duty members and civilians. Military psychologists also reported routine visits to foreign countries as part of their increasingly diverse duties and that the number of different countries visited increased with increasing military rank. Countries visited included countries in which the U.S. military is conducting operations, or has military bases established (e.g., Iraq, Bahrain, Germany, Japan, Guam, Italy). Military psychologists also reported other multicultural experiences such as using interpreters, working with wartime detainees, and working with clients with a wide variety of religious affiliations.

These findings provide direct evidence of the increasingly diverse and multicultural encounters that military mental health providers are experiencing. These multicultural experiences are testament to the fact that there is now, more than ever, a need for military mental health providers to be culturally competent.

Health Disparities

Medical Health Care Disparities

Much attention has been focused on documenting the existence of disparities in disease status (i.e., health) and care received (i.e., health care) between the Caucasian majority and ethnic minorities. The bulk of this research has been conducted in the medical field and has consistently shown that ethnic minorities receive less and poorer quality health care, suffer worse outcomes, and suffer higher mortality rates from certain diseases than Caucasians (see Smedley et al., 2002 for a comprehensive review). Despite equal access to high quality health care, several studies have documented that health care disparities also exist within the military health care system (e.g., Jatoi et al., 2003; Jha et al., 2001; Mirvis et al., 1994; Optenberg et al., 1995; Petersen et al., 1994; Taylor et al., 1997; Whittle et al., 1993).

Mental Health Care Disparities

Health disparities between ethnic minorities and Caucasians also occur in mental health. For example, compared to Caucasians, African Americans are more likely to terminate counseling prematurely (Terrell & Terrell, 1984; Sue et al., 2001), are less likely to utilize mental health services, less likely to improve following treatment (Sue et al., 2001), hold more negative expectations and attitudes about the mental health system, and are more concerned about therapist cultural competence (Banks, 2001). Asian Americans (Herrick & Brown, 1998) and Mexican Americans also underutilize mental health services (Sue et al., 1991). National psychiatric hospitalization data indicate that African Americans and Native Americans are significantly more likely than Caucasians to be admitted to inpatient wards (Snowden & Cheung, 1990). Although Asian

Americans and Pacific Islanders were less likely than Caucasians to be admitted, both groups were more likely to remain in inpatient care for longer. African Americans are more likely than Caucasians to be admitted with a schizophrenia diagnosis periods (Snowden & Cheung, 1990). Mental health disparities also occur in children. For example, research has found that fewer African American children are diagnosed and treated for attention deficit hyperactivity disorder (Bailey & Owens, 2005).

In a follow-up report to the original landmark Surgeon General report on mental health (*Mental Health: A Report of the Surgeon General*; USDHHS, 1999), the Department of Health and Human Services provided more extensive documentation of the existence of mental health disparities affecting racial and ethnic minorities (USDHHS, 2000). The supplement, which included the four most recognized racial/ethnic groups in the U.S. (African Americans, American Indians/Alaskan Natives, Asian Americans/ Pacific Islanders, and Hispanic Americans), found that although the prevalence of mental disorders was similar between ethnic minorities and Caucasians, ethnic minorities suffered worse mental health-related outcomes. Specifically, the study reviewed evidence documenting that ethnic minorities have less access to and are less likely to receive mental health services. In addition, studies found that once care was accessed, ethnic minorities receive poorer quality care (e.g., receiving mental health care through primary care clinics versus specialty mental health clinics).

Because of the extensiveness and importance of mental health disparities, in its final report to President George W. Bush, the President's New Freedom Commission on Mental Health (2003) included the elimination of mental health care disparities as one of its six fundamental goals for transforming mental health care in the United States.

Specifically, the commission identified the need to diversify the workforce with ethnic, cultural, and linguistic minorities, to tailor mental health services for culturally diverse populations, and to develop culturally competent treatments by including ethnic minorities in mental health research.

Causes of Health Care Disparities

As is generally true with medical health care disparities, it is unclear why these mental health differences exist. A variety of hypotheses have been suggested for explaining the cause(s) of these persistent differences. Potential causes have included lack of health insurance, socioeconomic differences, biological/genetic differences, differences in client help-seeking behavior, client mistrust (of providers and of the health care system), and provider prejudice/bias (Smedley et al., 2002; USDHHS, 2000). The USDHHS mental health supplemental report (USDHHS, 2000) discussed reasons for mental health disparities including mistrust/fear among racial and ethnic minorities, institutional and provider racism and discrimination, and lack of appropriate language services. Most researchers and theoreticians would likely agree that there is no single cause of these disparities and that the true etiology of these differences is complex and multifaceted (Smedley et al., 2002; USDHHS, 2000).

Despite unclear etiology of health care disparities, there has been a substantial amount of research, training, and focus on improving health care providers' competence to care for multiculturally diverse populations. Although there are obvious sociopolitical reasons to justify the need for culturally competent health providers, cultural competence has been proposed as one viable mechanism for decreasing health disparities (Brach & Fraser, 2000). Although there is no research directly linking increases in providers'

cultural competence with reduced health care disparities, some research indicates that cultural competence is associated with higher quality care and increased patient satisfaction (Beach et al., 2005). For these reasons, cultural competence has increased markedly in media attention, research, training initiatives and funding over the last several years. Increasing the cultural competence of health care providers is also important to meet the needs of the ethnically diverse U.S. population and because of the under representation of ethnic minorities in the health care professions.

Defining Cultural Competence

Despite increased attention and research and agreement on the importance of cultural competence (Sue, 1998), there has been a considerable lack of consensus on a single comprehensive definition of cultural competence (Sue, 2003). Several researchers have articulated a variety of definitions of cultural competence, usually based on their own unique viewpoints or models of the construct. For example, Hansen et al. (2000) enumerated a relatively precise and inclusive definition of cultural competence: “(a) awareness and knowledge of how age, gender, race, ethnicity, national origin, religion, sexual orientation, disability, language, and socioeconomic status are crucial dimensions to an informed professional understanding of human behavior and (b) clinical skills necessary to work effectively and ethically with culturally diverse individuals, groups, and communities” (p. 653). In a slightly simpler definition, Stuart (2004) defined cultural competence as “the ability to understand and constructively relate to the uniqueness of each client in light of the diverse cultures that influence each person’s perspective” (p. 3). Lo and colleagues (2003) defined cultural competence from a purely clinical perspective

as simply “the capacity to perform and obtain positive clinical outcomes in cross-cultural encounters” (p. 162).

Cunningham and colleagues (2002) documented that even cultural competence experts cannot agree on the definition of the concept. Specifically, these authors examined agreement statistics (kappa coefficients) to assess the extent to which two groups of experts agreed on the specific composition of the constructs associated with cultural competence. Experts included those who were nominated by important peer scholars as having cultural competence expertise and therapists with extensive clinical experience and training in working with ethnic minorities. There was poor overall agreement between the two sets of experts on items reflective of cultural competence.

However, most definitions of cultural competence are variants of one developed by counseling psychology researchers Cross and colleagues (1989) who defined cultural competence as “a set of congruent behaviors, attitudes, and policies that come together in a system, agency or amongst professionals and enables that system, agency or those professionals to work effectively in cross-cultural situations” (p. 13). Cross et al. (1989) are credited and frequently cited for their pioneering cultural competence continuum model, which has influenced the evolution of cultural competence across various fields and disciplines, including psychology, nursing, and medicine (Lippy, 2007). These authors recognize that cultural competence goes beyond cultural awareness or sensitivity. It includes not only possession of cultural knowledge and respect for different cultural perspectives, but also having skills and being able to use them effectively in cross-cultural situations (Cross et al., 1989). It also has been widely accepted that cultural competence exists on a continuum, in recognition that individuals can vary in, and thus

improve, their effectiveness with different ethnic groups and in different contexts with the same cultural group (Cross et al., 1989). Sue (2003) echoed this view in stating that “cultural competence is not a technique but a way of constructing the therapeutic encounter” (p. 968).

Counseling psychologists have conducted the majority of cultural competence research in the mental health field. These researchers commonly use the term “multicultural competence” when discussing the cultural competence of counseling psychologists. Because these researchers are invariably referring to the same concept and no researcher to my knowledge has pointed out theoretical or semantic differences, I will use the terms interchangeably throughout the rest of this document.

Influences of Culture and the Importance of Cultural Competence

Cultural Competence and the Therapy Process

Culture has the potential to affect nearly every part of the counseling and therapy process. For example, culture can play a role in differences in patient help-seeking behavior, the validity of assessment, the development of rapport, the therapeutic alliance, treatment planning, treatment adherence, and treatment effectiveness (Lo & Fung, 2003; Sue, 1998).

Differences in Value Systems

Culture and cultural competence are important because of inherent differences in values held by ethnic minorities and those values implicitly endorsed by the profession of psychology and mental health. Western psychology has been criticized for historical focus on a narrow group of people (i.e., middle-class European Americans) and for being ethnocentric, monocultural, and inherently biased against racial/ethnic minorities,

women, gays/lesbians, and other culturally diverse groups (APA, 2003; Sue & Sue, 1977; Sue & Sue, 2003). The concepts of counseling and therapy are largely Euro-American and based on the values of Western civilizations (Sue & Sue, 2003). Examples of these Western values and characteristics include an emphasis on openness, psychological mindedness, one-way communication (i.e., clients are encouraged to discuss intimate personal details while the counselor listens and shares very little of his/her personal information), a focus on rugged individualism (versus collectivism), autonomy (versus interdependence), emphasis on long-range goals, and a monolingual (i.e., English) orientation (Sue & Sue, 1977; Sue & Sue, 2003). The problem with using a mental health system with these traditional values is that they ignore the fact that these values may conflict with the value systems of many ethnic minorities who constitute three quarters of the world's population (Sue & Sue, 2003).

Sue and Sue (1977) were among the first to caution providers against the potential to misperceive cultural nuances that could lead to over generalizations and over pathologizing of ethnic minority patients. The authors used the example of providers' misperception of an ethnic minority client's poor verbal communication as evidence of pathology. Another example might include a Native American client reporting seeing spirits. A culturally competent therapist might approach this piece of information by hypothesizing that the client may be experiencing a culturally common hallucination or may be experiencing a psychotic episode (Sue, 1998). The therapist would, however, first need to possess the cultural knowledge that this phenomenon is common in some Native American tribes. Another example of how a cultural variable could influence the therapy process might include nonverbal communication such as the generalization of the

avoidance of eye contact among Mexican Americans, Native Americans, and Japanese misinterpreted as shyness or inattentiveness instead of the more likely interpretation as a sign of respect or deference (Sue & Sue, 1977, 2003).

Ethnic Minority Clients' Mistrust

Gaining trust can be a challenge for Caucasian providers whom many ethnic minorities consider “agents of the Establishment (i.e., oppressors)” (Sue & Sue, 2003, p. 77). This mistrust can then become an obstacle in the treatment process. Mistrust of providers, particularly among African Americans, has been discussed and documented. For example, Terrell and Terrell (1984) found that African American clients’ mistrust of Caucasians was associated with premature termination from counseling in a community mental health center. Thompson et al. (1994) found that African American women that were highly mistrustful of their Caucasian counselors disclosed less personal information during counseling sessions than similar cohorts who had low levels of mistrust. The authors hypothesized that African American clients are concerned that they may be misunderstood or even treated in a stereotypical manner by Caucasian counselors.

There is some support for the existence of stereotypical treatment by well-meaning providers in the therapeutic encounter. Microaggressions are subtle forms of interpersonal interaction that “convey attitudes of dominance, superiority, and denigration” and “that a person with privilege is better than a person of color, who is less intelligent, capable, worthy, and so forth” (Vasquez, 2007; p. 880). Constantine (2007) found that racial microaggressions committed by Caucasian counselors resulted in decreased therapeutic alliance with their African American clients. The African American clients in the study also reported decreased satisfaction and decreased

perceived general and multicultural competence in their Caucasian providers. Examples of counselor statements of racial microaggressions included “I’m not racist because some of my best friends are Black” (example of over identification), “I know that Black people are very religious” (stereotypic assumption), and “If Black people just worked harder, they could be successful like other people” (example of Meritocracy myth).

Effect of Racial/Ethnic Matching

It makes intuitive sense that racial and ethnic minorities would prefer to receive services from health care providers of the same ethnicity, presumably because of their shared worldviews, values and experiences. Many of the efforts to recruit and retain ethnic minorities into the mental health professions are based on the premise that ethnic minority providers are better prepared to meet the needs of the increasingly ethnically diverse patient population (Sue et al., 1991). Some researchers have proposed that matching clients and providers based on similar ethnicities is one component of culturally competent care (e.g., Shin et al, 2005; Karlsson, 2005). Researchers have suggested that Caucasian provider – ethnic minority client dyads may result in miscommunication and misunderstandings, which in turn may lead to premature therapy termination and poor treatment outcomes (Erdur et al., 2003; Shin et al., 2005). The literature on the effects of racial matching of clients and providers is mixed and controversial.

Patient preference studies. Research on racial matching in mental health counseling and therapy has generally been divided into studies documenting clients’ stated preference for same ethnicity providers and studies examining the effect of ethnic matching on treatment outcomes (Karlsson, 2005). Studies using forced choice methods have consistently shown that ethnic minorities prefer racially similar providers (Atkinson

et al., 1989; Bichsel, 1998; Coleman et al., 1995). These straightforward studies ask participants to state their preference for an ethnically similar or dissimilar provider. For example, in a series of studies Atkinson and colleagues (1986, 1989) asked ethnic minority college students to rank order a list of counselor characteristics. Ethnic minority participants generally indicated that having a racially similar counselor was one of their top preferences. The only counselor characteristics that were ranked higher were having a counselor with similar attitudes and personality, being older and more educated.

Treatment outcome studies. Studies of psychotherapy process and outcomes provide more valid support for the efficacy of ethnic matching (Karlsson, 2005). Several studies have taken a more detailed look at ethnic matching by examining the outcomes of counseling and therapy in which clients and providers are racially/ethnically matched. These studies are aimed at answering the important question: Does ethnic similarity between provider and client result in better treatment outcomes than those achieved from dissimilar dyads?

Sue and colleagues (1991) utilized outpatient archival data from a large database (Los Angeles County Department of Mental Health) of over 9,000 ethnic minorities to examine differences in premature termination (defined as a failure to return for treatment after one session), total number of sessions, and global assessment of functioning (GAF; a measure of overall client functioning) ratings at termination. Logistic regression analysis revealed that clients with an ethnically-matched provider had significantly lower odds of dropping out of therapy than unmatched clients. Ethnic match between therapist and client for all ethnic minority groups also was significantly associated with a greater number of sessions attended. African American clients matched with African American

therapists were the only group to show significant improvements in overall functioning as measured by final GAF scores.

In contrast, other researchers have found that racial matching does not positively affect treatment outcomes. Gamst et al. (2000) examined outpatient records of a sample of 4,554 clients of all ethnicities in a large metropolitan database (Los Angeles County). Results of this large data set revealed that ethnically-matched Asian and Latino American clients had significantly fewer sessions than their non-matched counterparts. Ethnically-matched African Americans also had lower GAF scores at termination than their non-matched counterparts. Erdur et al. (2003) examined change scores on the Outcome Questionnaire 45 (OQ-45; Lambert et al., 1994) of 4,483 students seeking personal counseling from 376 ethnically-matched and non-matched therapists from 42 university and college counseling centers across the U.S. There were no differences in OQ-45 change scores between ethnically-matched versus non-matched students.

Meta-analytic studies. Meta-analyses can provide a clearer picture of the effects of the concept or variable under examination because of the statistical power gained by combining study samples. Maramba and Hall (2002) performed a meta-analysis using seven studies of the effect of ethnic match on psychotherapy utilization rates, dropout rates, and client level of functioning. Their analysis revealed that clients matched with therapists of the same ethnicity were less likely to drop out of therapy than non-ethnically matched clients. However, the overall effect of this relationship was small ($r = 0.03$) and likely due to the power of the large combined sample size ($N = 22,095$). They also found that ethnic match was associated with attendance of more sessions, but this also was a

small effect ($r = 0.04$). Finally, ethnic match did not have a statistical affect on global assessment of functioning scores at treatment termination.

More recently, Shin and colleagues (2005) conducted a meta-analysis of 10 recent studies of the effect of ethnic matching on overall client functioning, dropout rates, and total number of sessions attended. Unlike Maramba and Hall (2002), Shin et al. (2005) chose to limit their analyses to studies of African Americans and Caucasians to eliminate potential confounding effects due to language (i.e., Asian Americans and Latinos). In contrast to Maramba and Hall (2002), the authors found that ethnic matching had no effect on any of the three main outcome variables.

Ethnic matching studies summary and conclusions. In sum, it appears that when asked, most ethnic minorities report that they prefer or would prefer seeing a counselor or therapist of the same ethnicity. However, the evidence appears to show that having an ethnically-similar therapist does not always translate into improved treatment outcomes. Moreover, when ethnic matching does show a positive effect on treatment outcomes, this effect appears to be rather small. Sue (1998) provided an insightful conclusion of this line of research: “(ethnic) match is neither a necessary or sufficient condition for positive treatment outcomes” and that “(ethnic) match may be important for some, but not all, clients” (p. 444). Sue and Zane (1987) suggested that ethnic match may be most important during the early stages of counseling or therapy when therapist credibility is being assessed and is most salient.

An important consideration is that ethnic matching serves as a proxy for cultural match (Karlsson, 2005; Maramba & Hall, 2002). Ethnic identity is a demographic variable, whereas cultural identity is a more psychological variable (Karlsson, 2005;

Maramba & Hall, 2002; Sue et al., 1991). Maramba and Hall (2002) and Sue and colleagues (1991) have argued that cultural match is much more difficult to operationalize, but perhaps a more important predictor of treatment outcomes than ethnic match. Some researchers have argued that client attitudes and beliefs (Sue et al., 1991), socioeconomic status (Alvidez et al., 1996; Karlsson, 2005) and level of acculturation (Bichsel, 1998; Karlsson, 2005; Sue et al., 1991) may be more important to study than ethnic match. In support of this conclusion, Atkinson et al. (1989) found that ethnic minorities preferred counselors with similar attitudes and personalities more than they preferred counselors with the same ethnicity. Finally, given the continued underrepresentation of ethnic minorities in the health professions (Council on Graduate Medical Education, 1998, 2005; Sullivan Commission, 2003), ethnic matching of clients and providers may be a moot point. Therefore, research aimed at strategies for improving the cultural competence of current providers may be more fruitful than continued studies of the effects of ethnic matching.

Cultural Competence and Ethnic Minority Patient Outcomes

Although studies generally show a relatively small effect of racial/ethnic matching on treatment outcomes, other studies have examined the relationship between cultural competence and other factors related to the multicultural counseling/therapy process.

Effects of Addressing Multicultural Concerns in Counseling

Some studies have examined the effect of the verbal content of counseling with ethnic minority clients. Worthington and colleagues (2000) found that ethnic minority clients rated counselors who used more multicultural verbal responses (e.g., explicit

verbal reference to culture, race, ethnicity, minority status, cultural values, cultural differences, cultural conflict, racial-cultural identity and environmental or social conditions arising from any of these variables) in counseling sessions as more culturally competent than counselors who used less multicultural verbal responses. Similarly, Li, Kim and O'Brien (2007) found that Asian American college students rated female Caucasian counselors who acknowledged racial differences with an Asian American client in session as more culturally competent than counselors who failed to acknowledge these important differences.

Thompson and Jenal (1994) conducted a qualitative examination of the effect of counselors' failure to discuss important cultural variables within the context of a counseling session. Female African American college students became "frustrated" and "exasperated" with counselors who intentionally avoided discussing racial concerns when presented by these clients (p. 489). Clients in this situation eventually acquiesced (i.e., joined the counselor in avoiding) and were deterred from discussing what was most important to them. Counseling sessions with these race-avoidant counselors were also characterized as being disrupted and arrhythmic.

Ethnic Minorities' Satisfaction with and Preference for Culturally Competent Providers

Several studies have shown that ethnic minorities prefer, and report increased satisfaction with, counselors and therapists that demonstrate culturally competent care. Among a sample of 112 ethnic minority college students, Constantine (2002) found that ethnic minority clients' satisfaction was significantly and independently positively related to their perception of their counselors' cultural competence, above and beyond counselors' general counseling competence. Thorn (1997) found that male African

American clients reported strong preferences to work with culturally competent therapists. Similarly, McCann (2006) found that African American clients who perceived their Caucasian therapists as being highly culturally competent also perceived them to be highly effective.

At least two studies have shown that ethnic minority clients are more satisfied with therapists who demonstrate increased cultural sensitivity. Want, Parham, and Baker (2004) found that African American college students preferred Caucasian counselors who exhibited high racial consciousness. In the study, highly racially conscious counselors were aware of their own racial identities, acknowledged the importance of diversity, and expressed a willingness to explore racial issues in counseling. These college students reported that they felt more comfortable with highly racially conscious counselors and that these counselors could better understand their problems. In an empirical study of patient satisfaction, Coleman (1998) had 189 college students watch two 10-minute counseling sessions portraying a culturally sensitive counselor in one vignette and a culturally neutral counselor in the other vignette. Participants consistently rated the culturally sensitive counselor higher in both general and multicultural competence.

Effects of Culturally Competent Care on Treatment Outcomes

Some studies have directly examined the effect of components of demonstrated culturally competent care on treatment and counseling. Similar to ethnic matching studies, Kim, Ng, and Ahn (2005) examined the effects of matching client-therapist worldviews on therapy outcomes. They found that Asian American clients matched with Caucasian counselors with similar worldviews (defined as the agreement about the cause of the client's problem) reported feeling a stronger working alliance with, and more

empathy from, their counselors than clients matched with counselors with dissimilar worldviews. Kim and colleagues (2002) also demonstrated that matching Caucasian counselors' therapy style to Asian client values (e.g., immediate resolution of the client's problem versus insight attainment, emphasis on the expression of thoughts versus emotion in counseling) resulted in a stronger therapeutic alliance and increased perceived counselor empathy.

In a similar study, Lowe (2005) examined the effect of integrating Asian collectivist values into counseling with Asian Americans. In her study, 103 Asian American graduate students were randomized to counseling with a Caucasian woman counselor using either a collectivist or individualistic approach to counseling. Counselors using the collectivist approach (i.e., making at least five statements, questions, or reflections consistent with collectivist values during a single session) were rated by Asian American clients on the Cross-Cultural Counseling Inventory (CCCI-R; LaFromboise et al., 1991) as more culturally competent than counselors using an individualistic approach. Finally, Li and Kim (2004) found that Caucasian counselors using a directive counseling style, which is reflective of the expectations and values of Asian Americans, were independently rated by 52 Asian American clients as more culturally competent than counselors using a non-directive style. Clients receiving the directive style also rated their counselors as being more empathic and felt a stronger working alliance and deeper session content than counselors using the non-directive style.

Organizational Policies, Codes and Guidelines

Several professional organizations and associations have realized the importance of cultural diversity and cultural competence and have responded with various policies,

guidelines, positions, and codes. Applied psychology, psychiatry, social work, counseling, health care, and education, are among the many professions that acknowledge the importance of diversity and cultural competence (Ridley & Kleiner, 2003).

Psychology

In recognition of the increasing multicultural diversity in the U.S. and in its membership, the American Psychological Association (APA, 1993) published “Guidelines for Providers of Psychological Services to Ethnic, Linguistic, and Culturally Diverse Populations” to enhance providers in providing appropriate and high quality psychological care to culturally diverse populations. APA emphasized that psychologists “acknowledge that ethnicity and culture impact on behavior and take those factors into account when working with various ethnic/racial groups” (p. 46). These guidelines also called for psychologists to make appropriate referrals, seek consultation, or to increase their competence in treating ethnic minority groups with whom they lack competence. A unique feature of the guidelines was the call for psychologists to be aware of their own cultural background, attitudes, values and biases and how these factors influence the psychological process. APA updated and provided further detail and research evidence for their guidelines in 2003 (“Guidelines on Multicultural Education, Training, Research, Practice, and Organizational Change for Psychologists”).

Psychiatry

The American Psychiatric Association (APA) affirmed their commitment to cultural diversity in a 1999 policy statement of the organization’s support of “the development of cultural diversity among its membership and within the field of psychiatry (including in under-graduate and graduate medical education, in faculty

development, in research, in psychiatric administration, and in clinical practice) in order to prepare psychiatrists to better serve a diverse U.S. population” (p. 1).

In relation to clinical care, the American Psychiatric Association formulated its view of cultural competence in a section of its 1995 practice guidelines for the psychiatric evaluation of adults entitled “Considerations for Sociocultural Diversity”:

The process of psychiatric evaluation must take into consideration, and respect, the diversity of American subcultures and must be sensitive to the patient’s ethnicity, place of birth, gender, age, social class, sexual orientation, and religious/spiritual beliefs. Respectful evaluation involves an empathic, nonjudgmental attitude toward the patient’s explanation of illness, concerns, and background. An awareness of one’s possible biases and prejudices about patients from different subcultures and an understanding of the limitations of one’s knowledge and skills in working with such patients may lead to the identification of situations calling for consultations with a clinician who has expertise concerning a particular subculture. Further, the potential effect of the psychiatrist’s sociocultural identity on the attitude and behavior of the patient would be taken into account in forming a diagnostic opinion (APA, 1995; p. 76).

In addition, in their latest version of the Diagnostic and Statistical Manual of Mental Disorders, 4th Edition, Text Revision (DSM-IV-TR), the American Psychiatric Association (2000) added a section on considering and incorporating sociocultural issues into clinical case formulation. The authors emphasize that “it is important that the clinician take into account the individual’s ethnic and cultural context in the evaluation of each of the DSM-IV axes” (p. 897). The text provides an outline to assist providers in

conducting a multicultural case formulation designed to supplement the DSM's traditional multi-axial diagnostic system. The main components of the cultural case formulation include identifying: the individual's ethnic reference group, the individual's views and explanations for their illness (including identifying any specific cultural-bound syndromes), culturally relevant stressors and coping mechanisms, culturally relevant elements of the therapeutic relationship, and how these cultural considerations specifically influence the diagnosis and treatment plan for the culturally diverse individual.

Medicine

The importance of cultural competence also has been recognized in medicine. Many national medical organizations have supported cultural competence as an end in itself and as a means to reduce health care disparities. For example, recent accreditation standards from the Liaison Committee on Medical Education (LCME) require that all medical students develop "an understanding of the manner in which people of diverse cultures and belief systems perceive health and illness (standard ED-21)" and also "learn to recognize and appropriately address gender and cultural biases in themselves and others, and in the process of healthcare delivery (standard ED-22)" (LCME, 2003). Aspects of cultural competence have been added to graduate medical education residency accreditation standards requiring that training programs train medical residents to "communicate effectively with patients, family, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds" and demonstrate "sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation" (ACGME, 2007; p. 10). Step 3 of the United States

Medical Licensing Exam (USMLE) uses diverse patients as part of the clinical assessment so that examinees must respond to clinical situations that include cultural contexts (USMLE, 2004).

Military

Diversity in its broadest sense has been embraced in the military. For example, diversity is so important that the former Chief of Naval Operations (CNO), Admiral Mike Mullens, identified a diverse workforce as a “strategic imperative” to the future success of the U.S. Navy (Navy Knowledge Online, 2008). Admiral Mullen emphasized that diversity is “critical to mission accomplishment.” In addition, a recent report from the National Research Council (NRC) on the need for basic research in the behavioral and social sciences in the military concluded that the Department of Defense should expand funding in intercultural competence of military members (APA, 2008). One of the significances of this report is that it placed the need for behavioral research on par with emphasis on spending for better technology and equipment, a traditional focus of military funding and research (APA, 2008).

Models of Cultural Competence

A variety of models of cultural competence have been developed. Major models (i.e., models that have been extensively written about and/or researched) are reviewed next.

Stage / Continuum Models

Based on the assertion that cultural competence is a dynamic and ongoing process (Cross et al., 1989; Sue et al., 1982, 1992), several authors have postulated stage-based (i.e., continuum) conceptualizations of cultural competence.

Bennett's Developmental Model of Intercultural Sensitivity (DMIS)

Anthropologist Milton Bennett (1986, 1993) created the Developmental Model of Intercultural Sensitivity (DMIS) to describe the different stages of individuals' reactions to cultural differences. Bennett observed that individuals reacted in predictable ways to cultural differences and also improved their cross-cultural interaction skills over time (Endicott et al., 2003). Using concepts from cognitive psychology, Bennett organized his observations into six stages that reflect increasing sensitivity to cultural differences. Each stage reflects a particular cognitive style that is expressed through specific attitudes and behaviors related to cultural differences (Endicott et al., 2003). Bennett's model assumes that as experience of cultural differences becomes more sophisticated and complex, individuals become more culturally competent (Bennett, 1986).

The DMIS consists of six stages with two general levels. The first three stages (Denial, Defense, Minimization) are ethnocentric, meaning that one's own cultural is viewed as the center of reality. The second three stages (Acceptance, Adaptation, Integration) are ethnorelative, meaning that one's own culture is viewed within the context of other cultures.

Stage 1 (*Denial of Difference*) individuals view their culture as the only real one and are generally disinterested in other cultures. These individuals avoid other cultural differences by maintaining psychological and/or physical distance. Stage 2 (*Defense against Difference*) experience cultural differences, but hold their own culture to be superior to other cultures. These individuals tend to feel threatened by cultural differences. In stage 3 (*Minimization of Difference*), individuals acknowledge superficial cultural differences, but they tend to view their cultural as universal and emphasize

similarities while downplaying cultural differences. In stage 4 (*Acceptance of Difference*) individuals are curious about and respectful of cultural differences. These individuals believe that cultures are equally complex and valuable. Individuals in stage 5 (*Adaptation to Difference*) are able to look at the world through the eyes of a culturally different other. These individuals are able to intentionally change their behavior to communicate more effectively in another culture. In stage 6 (*Integration of Difference*), individuals are able to move comfortably in and out of different cultural sets because they have internalized more than one cultural worldview into their own.

Intercultural Development Inventory (IDI). Hammer and Bennett (1998) subsequently developed a 50-item measure of views toward culturally different others called the Intercultural Development Inventory (IDI) based on Bennett's Developmental Model of Intercultural Sensitivity (DMIS) theory. The IDI measures five of the six stages of Bennett's DMIS theory (*Denial, Defense, Minimization, Acceptance, and Adaptation*). Factor analyses have confirmed the first four stages with the fifth stage being divided into "Cognitive Adaptation" and "Behavioral Adaptation" (Paige et al., 2003). Examples of IDI items include "I do not like to socialize very much with people from different cultures" (Denial), "My culture's way of life should be a model for the rest of the world" (Defense), "People are the same despite outward differences in appearance" (Minimization), and "I feel there are advantages in identifying with more than one culture" (Cognitive Adaptation).

The IDI yields a total score (a composite score of the individually-weighted subscales) that reflects an individual's development on a continuum from ethnocentric to ethnorelative. One unique feature of the IDI is its ability to generate unique, personal

intercultural development profiles with one score reflecting how the person scored on the IDI and the other score reflecting how they rate themselves with regard to their intercultural sensitivity. Each of these scores is bar graphed along the developmental continuum from ethnocentric to ethnorelative.

The IDI is reliable and appears to have little susceptibility to social desirability bias. Factor analyses also revealed that the IDI reasonably approximates Bennett's DMIS model (Paige et al., 2003).

Cross's Continuum Model of Cultural Proficiency

In a pivotal monograph entitled "Toward a Culturally Competent System of Care," T.L. Cross and colleagues (1989) defined cultural competence and articulated a continuum of cultural competence. The authors believed that individuals and organizations are at various levels of awareness, knowledge and skills along the cultural competence continuum. The Cross model contains six stages of development. In stage 1 (*Cultural Destructiveness*), individuals hold an aggressive view that their own cultural is superior and that other cultures should be eradicated. Although currently few individuals are likely to fit this description, there are several historical organizational examples such as the forced assimilation of Native Americans and the infamous Tuskegee experiments in which poor southern African American men with Syphilis were deliberately left untreated by the U.S. Public Health Service (Sue & Sue, 2003). Individuals in stage 2 (*Cultural Incapacity*) also hold their own cultural to be superior, but instead of aggressively seeking to eradicate other cultures, these individuals assume a paternalistic view towards other cultures. Stage 3 (*Cultural Blindness*) reflects an egalitarian point of view and holds that's all people are essentially alike, and should, therefore, be treated the

same. Individuals in stage 4 (*Cultural Pre-Competence*) acknowledge cultural differences and are beginning to seek out information about other cultures. Individuals at the stage 5 level (*Cultural Competence*) appreciate, value and respect culture and diversity. At the highest level, stage 6 (*Cultural Proficiency*), individuals move beyond passive acceptance and respect, and actively seek out cross-cultural situations and desire to increase their knowledge and understanding of other cultures. Individuals at this highest level hold culture in high esteem. Similar to Bennett's (1986, 1993) most developed stage (*Integration*), these individuals are able to move in and out of other cultures comfortably and can appreciate their own culture in the context of other cultures.

The Cross model has been adapted and used by many professional organizations. It is often used to help develop culturally competent business practices and health care training. It is the main model espoused by the National Center for Cultural Competence (NCCC) at Georgetown University.

Sue et al.'s Tripartite Model

D. W. Sue and colleagues (1982, 1992) were among the first counseling psychology researchers to point to the need for guidelines for ethical practice with ethnic minority clients. In response to the lack of awareness and commitment to multiculturalism, the Education and Training Committee of the American Psychological Association's (APA) Division of Counseling Psychology (Division 17) in 1982 developed the first multicultural competencies based on three conceptualized dimensions (i.e., tripartite framework) of multicultural counseling competencies (i.e., cultural competence): (1) beliefs-attitudes, (2) knowledge, and (3) skills (Sue et al., 1982). These

dimensions included 11 specific minimum characteristics of a culturally skilled counselor.

The first domain, which concerns beliefs and attitudes, requires that the culturally skilled counseling psychologist be culturally aware, in touch with his or her own biases about minority clients, comfortable with such differences, and sensitive to circumstances that may require the referral of minority clients to a same-culture counselor (Sue et al., 1982). The second domain consists of knowledge (i.e., information sets) that the culturally skilled counseling psychologist should possess, including an understanding of the effects the sociopolitical system within the United States has on minorities, culture-specific knowledge about the particular group being counseled, and understanding of the generic characteristics of counseling and psychotherapy, and knowledge of institutional barriers to minorities' use of mental health services (Sue et al., 1982). Third, the culturally competent counseling psychologist should have the following skills: a wide repertoire of verbal and nonverbal responses, the ability to send messages accurately and appropriately, and the ability to use appropriate institutional interventions when needed (Sue et al., 1982).

Sue et al. (1992) followed up their 1982 paper by organizing the skills of a culturally competent counselor into three overarching characteristics: (1) counselors' awareness of their own assumptions, values, and biases; (2) an understanding of the worldview of the culturally different client; and (3) the development of appropriate intervention strategies and techniques. By cross-classifying these three general characteristics with the three earlier proposed dimensions (beliefs-attitudes, knowledge, skills), Sue et al. (1992) presented a 3 x 3 matrix of nine competency areas encompassing

31 specific competencies. Arrendondo et al. (1996) then followed up the landmark works by Sue et al. (1982, 1992) by further clarifying and operationalizing these multicultural competencies. These authors provided detailed explanatory statements for each of the 31 competencies.

Measures of Cultural Competence

There are also many measures of cultural competence. Similar to the different definitions and models of cultural competence, most measures of cultural competence reflect the unique views of their authors. Measures of cultural competence generally reflect the professional fields that have studied cultural competence and include measures designed for mental health professionals (particularly clinical and counseling psychologists), nurses, physicians, and organizations. Because the focus of this project is to measure the cultural competence of military mental health professionals, only measures designed for this population will be reviewed. In response to Sue et al.'s (1982, 1992) Tripartite Model, several measures were created to reflect the tridimensional multicultural counseling competencies. The five most researched and most used measures based on Sue et al.'s (1982, 1992) model are reviewed.

Cross-Cultural Counseling Inventory-Revised (CCCI-R)

The CCCI-R (LaFromboise et al., 1991) is a slightly modified version of the original Cross-Cultural Counseling Inventory (CCCI; Hernandez & LaFromboise, 1985) and was the first instrument developed to reflect Sue et al.'s (1982, 1992) Tripartite Model of multicultural competence. The CCCI was created by developing two items for each of the 11 characteristics of culturally skilled counselors as outlined by Sue et al. (1982). After redundant items were dropped and the CCCI was reformulated to reflect

understanding of the counseling process, a 20-item version, the CCCI-R, was created. The CCCI-R is unique from other counseling psychology cultural competence measures because an evaluator completes it. The instructions direct the evaluator to rate the extent to which a counselor demonstrates a particular competency on a 6-point Likert scale ranging from 1 (“strongly agree”) to 6 (“strongly disagree”). Example items include: “Counselor is aware of how own values might affect the client”(awareness) “Counselor demonstrates knowledge about client’s culture” (knowledge), and “Counselor is willing to suggest referral when cultural differences are extensive” (skills). The CCCI-R also has been successfully adapted for self-report use (e.g., Ladany et al., 1997).

The coefficient alpha of the CCCI-R, taken from a sample of 86 university students and faculty, was 0.95 (LaFromboise et al., 1991). Inter-rater reliability of the CCCI-R was 0.78 to 0.84. Content, criterion, and construct validity also exist for the CCCI-R (LaFromboise et al., 1991). Factor analyses, revealed a unidimensional construct (single clear factor) and a three-factor structure matching the three dimensions of Sue et al.’s (1982, 1992) tridimensional model (LaFromboise et al., 1991).

Multicultural Counseling Awareness Scale – Form B (MCAS-B)

The MCAS-B (Ponterotto et al., 1996) is a 45-item self-report measure developed by Ponterotto et al. (1991) to reflect Sue and colleagues’ (1982, 1992) Tripartite Model. The MCAS-B uses a 7-point Likert scale to measure multicultural knowledge/skills and awareness, with responses ranging from 1 (“not at all true”) to 7 (“totally true”). The MCAS-B also includes three items to assess social desirable responding. Sample items include: “I feel all the recent attention directed toward multicultural issues in counseling is overdone and not really warranted” (awareness), “I am knowledgeable of acculturation

models for various ethnic minority groups” (knowledge/skills), and “At this point in my professional development, I feel I could benefit little from clinical supervision of my multicultural client caseload” (social desirability).

The MCAS-B has good reliability and validity and is sensitive to increased levels of multicultural experience and training (Ponterotto et al., 1991). Factor analyses revealed a two-factor structure reflecting cultural awareness and cultural knowledge/skills (Ponterotto et al., 1991). Therefore, the MCAS-B was subsequently revised and renamed the Multicultural Counseling Knowledge and Awareness Scale (MCKAS; Ponterotto et al., 2002).

Multicultural Awareness/Knowledge/Skills Survey (MAKSS)

The Multicultural Awareness/Knowledge/Skills Survey (MAKSS) was designed by D’Andrea and colleagues (1991) to assess the effect of cultural competence training on students’ multicultural counseling development. The beginning of the MAKSS contains several demographic questions followed by 60 statements that are responded to on three different 4-point Likert scales. Example items include: “At this point in your life, how would you rate your understanding of the impact of the way you think and act when interacting with persons of different cultural backgrounds?” (1 = “Very Limited” to 4 = “Very Aware”); “At the present time, how would you rate your own understanding of the term ‘Ethnocentrism’?” (1 = “Very Limited” to 4 = “Very Good”); “In counseling, clients from different ethnic/cultural backgrounds should be given the same treatment that White mainstream clients receive.” (1 = “Strongly Disagree” to 4 = “Strongly Agree”).

The MAKSS is divided equally into three subscales measuring multicultural counseling awareness, knowledge, and skills. Although D’Andrea and colleagues did not directly attribute the creation of the MAKSS to Sue et al.’s (1982, 1992) model, the three subscales of the instrument generally match the Tripartite Model.

The MAKSS’ internal consistency reliability has coefficient alphas ranging from 0.75 (Awareness scale) to 0.96 (Skills subscale) (D’Andrea et al., 1991). D’Andrea et al. (1991) reported factor loadings for the knowledge and skills subscales, whereas the awareness subscale appeared to consist of three distinct sub-factors. The total scale was not subjected to factor analysis in the original study. The MAKSS has criterion-related validity in that the instrument discriminated between students who had received specific multicultural training from those who had not.

Because the MAKSS is relatively long (i.e., 60 items) and takes approximately 20-25 minutes to complete (D’Andrea et al., 1991), Kim et al. (2003) created a revised 33-item version. This revised version, called the MAKSS-Counselor Edition-Revised (MAKSS-CE-R), contains 13 Knowledge subscale items and 10 items each for the Awareness and Skills subscales.

Multicultural Counseling Inventory (MCI)

The Multicultural Counseling Inventory (MCI), developed by Sadowsky et al. (1994), is another self-report multicultural counseling competence measure that was designed to reflect the Sue et al. (1982, 1992) model. However, the MCI was developed “independently and was expected to be relatively different from the other measures” (i.e., CCCI-R; MCAS-B, and MAKSS) (Sadowsky et al., 1994; p. 139). From a series of studies among large samples of psychology students, practitioners, and counselors, the

authors developed a final 40-item measure. The MCI uses a 4-point Likert scale and asks respondents to indicate the degree to which the scale items describe their own work ranging from 1 (“very inaccurate”) to 4 (“very accurate”).

The MCI has a coefficient alpha for the total scale score = 0.90 and subscale alphas ranging from 0.71 to 0.83 (Sodowsky et al., 1994). Content validity of the MCI was determined through expert judgment of items. Criterion validity has been determined by discriminating between counselors who have received training from those who have not.

Factor analyses of the MCI yielded four subscales: (1) Multicultural Counseling Skills (11 items), (2) Multicultural Awareness (10 items), (3) Multicultural Counseling Knowledge (11 items), and (4) Multicultural Counseling Relationships (8 items). The Skills, Knowledge, and Awareness subscales measure content similar to that described previously for the CCCI-R and MCAS-B. A unique feature of the MCI, however, is its fourth subscale: Multicultural Counseling Relationship. This subscale refers to the counselor’s stereotypes of, and comfort level with minority clients and reflects the “interpersonal process of multicultural counseling” (Sodowsky et al, 1994, p. 146). The following are samples from each of the MCI subscales (all items prefaced with “When working with minority clients...”): “I quickly recognize and recover from cultural mistakes” (skills item), “I have an understanding of specific racial and ethnic minority groups” (awareness item), “I know the sociopolitical history of the clients’ minority group” (knowledge item), and “my case conceptualizations are not stereotypical or biased” (relationship item).

California Brief Multicultural Competence Scale (CBMCS)

In response to several shortcomings of the other multicultural counseling competence measures, Gamst et al. (2004) used empirical methods to develop the California Brief Multicultural Competence Scale (CBMCS). The purpose was to create a single brief instrument, developed from the available instruments to resolve some of the reported critical issues of the other instruments (e.g., different scale development procedures, variability of number of items, different scoring procedures, different factor structures, expert consensus derivation of item content vs. empirical item development).

Items for the CBMCS were compiled from four previous multicultural counseling measures (CCCI-R, MAKSS, MCAS-B, and the Multicultural Competency and Training Survey [MCCTS; Holcomb-McCoy & Myers, 1999]). The CBMCS items were first checked for social desirable responding and 13 items were eliminated that correlated significantly with the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960). Subsequent factor analyses yielded a 21-item four-factor solution: Factor 1, Sensitivity to Consumers (31% of the variance, 7 items), Factor 2, Nonethnic Ability (12.1% of the variance, 6 items), Factor 3, Awareness of Cultural Barriers (10% of the variance, 5 items), and Factor 4, Multicultural Knowledge (5.8% of the variance, 3 items). The final 21-item measure was checked again for socially desirable responding on a new sample and confirmed with another confirmatory factor analysis. Example items include “I have an excellent ability to assess accurately the mental health needs of persons who come from very poor socioeconomic backgrounds” (Nonethnic Ability item), “I am aware that being born a White person in this society carries with it certain

advantages” (Awareness item), and “I can discuss research regarding mental health issues and culturally different populations” (Knowledge item), and “ I am aware of how my own values might affect my client” (Sensitivity to Consumers item).

Regarding psychometric properties of the CBMCS, Cronbach’s alpha for the overall measure was 0.89 and ranged from 0.75 to 0.90 for the four subscales. The CBMCS subscales had low to moderate positive correlations with the Multicultural Counseling Inventory (MCI; Sadowsky et al., 1994) suggesting good criterion-related validity.

Summary of Counseling Psychology Measures

In general, each of the multicultural counseling measures reviewed above reflects the Sue et al. (1982, 1992) Tripartite Model of multicultural counseling competence. The measures have demonstrated adequate to good psychometric properties. More importantly, the measures have filled a critical need in the cultural competence literature because they have allowed researchers to measure the construct of cultural competence to answer important questions within this relatively new field, such as “What is the effectiveness of cultural competence?” “How is cultural competency defined and measured?” and “How can culturally competent providers be identified?” (Sue, 2003). A recent review by Dunn and colleagues (2006) found over 800 journal articles addressing multicultural competence in mental health training and assessment, and the vast majority of these studies used self-report forms of multicultural competence. The most frequently used instruments included the MCI, MAKSS, CCCI-R, and MCKAS (formerly the MCAS-B), in that order, and these four instruments accounted for nearly all the self-report measures used in the articles identified.

However, several researchers have pointed out several limitations of the self-report instruments reviewed. One major criticism is the poor match between the number of factors yielded by the various instruments and the three factors reflected in the Sue et al. (1982, 1992) Tripartite Model (Worthington et al., 2007). Factor analyses have found little support for the tridimensional conceptualization. For example, the MCAS-B seems to consist of a two-factor (Awareness and Knowledge/Skills) structure. The MCI reflects a four-factor structure (Knowledge, Awareness, Skills, Relationship), with the fourth factor (“Relationship”) appearing to tap a new dimension of cultural competence. The CBCMS also consists of four factors (Knowledge, Awareness, Sensitivity to Consumer, Nonethnic Ability), and appears to tap a unique aspect of cultural competence with its fourth factor called “Nonethnic Ability.” The MAKSS seems to reflect a three-factor model corresponding to the Sue et al. (1982, 1992) tridimensional concept of Knowledge, Awareness, and Skills, but the total scale has never been assessed. Similarly, there is some support for a three-factor structure of the CCCI-R, but there is also support for a single factor model. Several other limitations of these self-report instruments are discussed in the following section.

Of the five counseling psychology measures reviewed, we chose to use the California Brief Multicultural Competence Scale (CBMCS) in this project for reasons that will be discussed below in the Methods section.

Strengths and Limitations of Self-Report Cultural Competence Measures

Self-report measures offer convenience and simplicity for researchers to carry out their studies. Self-report measures allow researchers to assess constructs of interest with statistics available to determine how well and how consistent the measure accomplishes

that purpose. In turn, these statistical psychometric properties allow for quantitative comparisons between similar measures.

However, there are several limitations to self-report measures. Specific cultural competence self-report measures (such as the ones discussed above) offer even greater challenges (Smedley et al., 2002). Perhaps the most serious limitation is that respondents may answer in a socially desirable manner (i.e., intentionally present one's self in the best and most favorable manner rather than responding in a more accurate manner). This type of biased responding may be even more likely when measuring cultural competency because of the sensitive and emotional nature of this topic. Because of these concerns, Sadowsky et al. (1998) recommended that the completion of such measures be accompanied by an index of social desirability or impression management. Constantine and Ladany (2000) found that the four popular self-report multicultural counseling competence measures (CCCI-R, MAKSS, MCI, and MCKAS) were significantly positively correlated with the Marlowe-Crowne Social Desirability Scale (Crown & Marlowe, 1960).

Another criticism of multicultural competence instrumentation is that it may reflect respondents' self-efficacy or anticipated, rather than their actual, competence in treating ethnic minority clients. For example, Constantine (2001a) found no link between counselors' self-reported multicultural competence and expert observer ratings of their multicultural competence. In her study, counselors engaged in an actual counseling intake session with ethnic minority clients. Counselors' self-ratings of their competence in these encounters (measured on the MCI) did not correlate with expert ratings of their performance (measured with the CCCI-R). Similar results also have been reported by

Constantine and Ladany (2000) and Worthington and colleagues (2000), suggesting that self-reported and observer-rated multicultural competence may be two theoretically divergent constructs.

Correlates of Cultural Competence

Most of the research within the cultural competence field has focused on examining correlates of cultural competence. In a recent content analysis of the empirical cultural competence literature from 1986 to 2005, Worthington et al. (2007) found that the majority (57%) of studies examined intrapersonal correlates of providers' cultural competence. Studies of this type included demographics (e.g., gender, race), ethnic identity status, prior cultural competence training, prior multicultural clinical experience, prior cross-cultural experience, multicultural case conceptualization ability, and social desirability. The authors also found that research studies mostly used survey methods in which cultural competence was assessed with various self-report measures and then was correlated with intrapersonal characteristics.

Given that cultural competence is a relatively new area of health care research, it is not surprising that the field has not advanced to more sophisticated methodology. The cultural competence field is broad and complex, and most of the research questions are similarly broad and designed for basic answers. With time and the continued advancement of the field, one would expect that more detailed questions would be posed requiring more empirically rigorous research designs.

The correlates that have been studied in the cultural competence literature are discussed next. This review does not include correlates that have received little attention in the literature.

Cultural Competence Training

It makes sense that specific cultural competence training would lead to increased cultural competence. Cultural competence training has been one of the most studied areas in the cultural competence literature (Worthington et al., 2007). Training designed to increase the cultural competence of providers has increased dramatically over the last decade despite a lack of solid empirical support for its efficacy (Smith et al., 2006). For example, many psychology training programs have increased the inclusion of multicultural issues in their curricula (e.g., Hills & Strozier, 1992 Bernal & Castro, 1994).

Types of Cultural Competence Training

Cultural competence training and education have been implemented in a variety of forms and modalities. Most cultural competence training occurs either as a single course (by far the most frequently used) or as aspects of culture infused into other courses (D'Andrea et al., 1991). Many graduate programs have courses dedicated to increase multicultural knowledge, awareness, and skills of their students. Courses designed to increase students' knowledge typically emphasize the accumulation of large amounts of information on specific racial/ethnic groups through the use of readings, lectures, videos, and written assignments. Education designed to increase student's awareness uses a wide variety of methods such as classroom discussions to explore students' personal stereotypes and prejudices about a different ethnic groups, videos (e.g., Jane Elliot's *Brown Eyes, Blue Eyes*), and lectures. Skills acquisition education may include interactive role-playing, behavioral modeling, or critiquing of simulated or actual

therapist-patient interactions (D'Andrea et al., 1991). In addition, multicultural courses frequently incorporate a variety of activities that included all three competencies.

Survey Studies

Studies on the efficacy of multicultural education/cultural competence generally have a positive effect on students' cultural competence. Many studies have documented the efficacy of cultural competence training using cross-sectional surveys of various participant groups. In a study of 128 counseling psychology graduate students from 20 randomly selected American Psychological Association (APA)-approved counseling psychology programs in the Midwest, Ottavi et al. (1994) found that prior multicultural coursework and multicultural workshops were significant independent positive predictors of cultural competency as measured by the Multicultural Counseling Inventory (MCI; Sadowsky et al., 1994). Students' prior multicultural coursework was significantly related to the MCI Skills, Knowledge and Awareness subscales, whereas their multicultural workshop training was significantly related to the MCI Skills and Awareness subscales. Neither of the training variables was significantly related to the MCI Relationship subscale.

In a related study Pope-Davis et al. (1994) conducted a random sample of 70 university counseling centers throughout the U.S., chosen from a list of the Association of Counseling Center Training Agents. In their cross-sectional survey, 141 doctoral interns (mostly counseling psychology graduate students) completed the main study measure, the Multicultural Counseling Awareness Scale (MCAS; Ponterroto et al., 1994), and a demographic questionnaire. Students' report of prior multicultural coursework and multicultural workshops were significantly associated with their self-reported cultural

competence. Multicultural training was associated with the MCAS Knowledge-Skills subscale, but not significantly associated with the Awareness subscale. Multiple regression analyses revealed that multicultural courses and multicultural workshops accounted for approximately 6% and 7% of the overall variance in MCAS scores, respectively.

In a separate but related study Pope-Davis et al. (1995) used a national sample of 344 counseling and clinical psychology graduate students to determine correlates of cultural competence as measured by the Multicultural Counseling Inventory (MCI; Sadowsky et al., 1994). Similar to the two previous studies, the authors found that multicultural coursework and workshops were predictive of cultural competence. Multicultural coursework had mild to moderate correlations ($r = 0.18 - 0.43$) with the Skill, Knowledge and Awareness subscales of the MCI. Multicultural workshops also demonstrated mild to moderate correlations ($r = 0.20 - 0.35$) with the Knowledge and Awareness subscales of the MCI.

Analogue Studies

Constantine (2001a) reported similar results using a slightly different methodology. Real life counseling sessions were analyzed to determine the relative contributions of a variety of factors, including prior multicultural coursework, on observer ratings of participants' cultural competence. Audiotapes were transcribed of 52 counseling psychology graduate students conducting an intake session at a community counseling practicum site with 52 ethnic minority clients presenting with DSM-IV Adjustment Disorder-related difficulties. Two experts in multicultural counseling independently rated the written transcriptions of the intake sessions using an objective

assessment of cultural competence, the Cross-Cultural Counseling Inventory-Revised (CCCI-R; LaFromboise et al., 1991). The number of previous multicultural counseling courses accounted for significant variance in CCCI-R ratings (R^2 change = 0.08), indicating that multicultural coursework was a significant and independent predictor of cultural competence, above and beyond client and counselor race and client-counselor ethnic match. This percent of variance (8%) closely matched that found in the study by Pope-Davis et al. (1994) (i.e., 6%). Other correlational survey studies also have found significant relationships between multicultural coursework and self-report ratings of cultural competence in graduate student samples (e.g., Carlson et al., 1998; Crawford, 2001).

Studies of Practicing Providers

Because many research studies use student samples that are relatively homogeneous, it is important to consider studies of diverse sets of practicing providers. Holcomb-McCoy and Myers (1999) surveyed a stratified sample of 500 professional counselors drawn from the membership of the American Counseling Association (ACA). Respondents who had taken a multicultural counseling course reported significantly higher levels of self-perceived cultural competence. One limitation of the study was the authors' use of their own cultural competence measure, which they entitled the Multicultural Counseling Competence and Training Survey (MCCTS), instead of using one of the four psychometrically established counseling psychology measures. Although their 61-item measure demonstrated adequate psychometric properties (e.g., alpha coefficients ranging from 0.66 to 0.92), the validity of the measure is questionable.

Holcomb-McCoy (2001) conducted a similar survey study with a sample of 76 practicing school counselors. Contrary to her previous study and most other studies, there was no difference in cultural competence (as measured on the MCCTS) between counselors who had taken a multicultural course and those who had not. However, multicultural coursework was assessed as a dichotomous variable (i.e., “yes” or “no”). Most studies assess this variable as the number of multicultural courses taken. Another limitation of the study was the use of the MCCTS, which as previously mentioned, is a new measure of cultural competence and lacks support for its validity.

Constantine (2001b) also surveyed school counselors, but used better methodology. In a convenience sample of 156 practicing school counselors from the greater New York City metropolitan area, Constantine found that number of formal multicultural courses taken significantly predicted counselors’ self-perceived cultural competence as measured by the Cross-Cultural Counseling Inventory-Revised (CCCI-R; LaFromboise et al., 1991). However, this relationship only was true of women.

Sodowsky et al. (1998) surveyed 176 university counseling staff from across the U.S. consisting mainly of doctoral level psychologists. The authors used multiple regression analyses to determine predictors of cultural competence as measured by Multicultural Counseling Inventory (MCI; Sodowsky et al., 1994). Multicultural variables, which included ethnic minority client caseload, number of multicultural research projects, number of multicultural courses, and multicultural workshops, together accounted for significant variance (10%) in cultural competence scores. Number of multicultural courses taken, but not number of multicultural workshops, was a significant

independent predictor of cultural competence, above and beyond socially desirable responding, psychologist ethnicity, and psychologist racial ideology status.

Studies also have documented the efficacy of cultural competence in practicing rehabilitation counselors. For example, in a sample of 175 vocational rehabilitation counselors in a large Northeastern state agency, Bellini (2002) found that prior multicultural coursework and multicultural workshops were significant independent positive predictors of counselors' self-reported cultural competence as measured with the Multicultural Counseling Inventory (MCI; Sadowsky et al., 1998). Byington and colleagues (1997) found similar results in a sample of 48 practicing rehabilitation counselors. Multicultural training consisted of a two-day, 15-hour workshop covering a variety of topics on multicultural counseling including cultural awareness, ethical issues, cross-cultural communication, and assessment of people of color. Counselor cultural competence was assessed with the authors' newly created measure (Multicultural Counseling Ethics and Assessment Competency Scale; MCEACS), and with a behavioral measure consisting of independent expert ratings of the quality of pre- and post-workshop written responses of a clinical case vignette. The cultural competence workshop was successful in increasing participants' cultural competence as measured by self-report, but not by independent behavioral assessment.

Empirical Studies

Although correlational survey studies have shown support for the efficacy of cultural competence training, experimental studies would provide stronger evidence. There have been relatively fewer empirical studies conducted on this topic. Most of these

studies have tested the efficacy of a specific multicultural course using a pre-post measure of cultural competence.

D'Andrea and colleagues (1991) conducted one of the first empirical studies of the efficacy of multicultural training. In three separate studies, D'Andrea et al. (1991) evaluated the impact of a counselor training program on graduate students' levels of multicultural counseling awareness, knowledge and skills using three training formats: a semester-long course, an abbreviated summer course, and an intensive three-weekend course. Students in the first two multicultural training courses were compared with students in control courses in which they did not receive multicultural training. Compared to the control groups, students in the multicultural training courses reported significant increases in multicultural awareness, knowledge, and skills at post training, as measured by the Multicultural Awareness-Knowledge-Skills Survey (MAKSS; D'Andrea et al., 1991).

Estrada, Durlak, and Juarez (2002) extended the study by D'Andrea et al. (1991) to a sample of undergraduate psychology students. Estrada and colleagues (2002) used a similar research design by comparing the impact of a semester-long multicultural course versus a control group. The study consisted of 21 undergraduates in a counseling psychology course on human diversity in psychotherapy (experimental group) and 20 undergraduates in a psychology of personality course (control group). The multicultural course was designed to increase students' awareness of multicultural concepts and their knowledge about the clinical needs of clients from diverse backgrounds. The course consisted of providing a rationale for and definition of multicultural counseling, reviewing and critiquing traditional theories of psychotherapies from a multicultural

perspective, and a review of the literature on psychotherapy with various multicultural groups. The authors found that compared to the control group of students, students who completed the multicultural course had significantly higher multicultural knowledge and awareness as measured by the Multicultural Awareness-Knowledge-Skills Survey (MAKSS; D'Andrea et al., 1991). The multicultural course resulted in a large effect ($d = 1.21$) over time.

Berg (2001) examined the effects of a multicultural course on master's level counselors. The Multicultural Counseling Knowledge and Awareness Scale (MCKAS, a revision of the MCAS-B; Ponterotto et al., 2002) was completed at the first and last class of the course. Students who participated in the multicultural course reported a greater level of cultural competence than students who had not participated in the course. Students in the multicultural course showed a significant increase on the Awareness subscale of the MCKAS, but not on the Knowledge subscale of the measure.

Diaz-Lazaro and Cohen (2001) used a similar pre-post design to measure the effects of a multicultural counseling course on 15 counseling psychology graduate students at a northeastern state university. The course mostly involved experiential and immersion exercises with various ethnic groups. The course also included small group discussions, panels of high-status guest speakers, and required students to keep a journal of their cognitive and affective responses to their immersion experiences and to write a paper about their immersion experiences. Unlike the previous three studies, the study did not use a control group for comparison. Students' scores on the Multicultural Awareness-Knowledge-Skills Survey (MAKSS; D'Andrea et al., 1991) were

significantly higher at the end of the course, indicating that the semester-long course was effective at increasing students' cultural competence on a self-report measure.

Neville and colleagues (1996) also investigated the impact of a multicultural counseling course on a group of graduate students. Similar to Diaz-Lazaro and Cohen (2001), the authors did not use a control group for comparison. However, Neville and her colleagues were the only study that could be found in the literature that conducted a follow-up assessment of students who had completed the multicultural course. Participants in the study included 38 students enrolled in an optional graduate level multicultural therapy course at one of three predominantly Caucasian universities located in the mid-West, on the East coast, and on the West coast. Students completed the Multicultural Awareness, Knowledge, and Skills Survey (MAKSS; D'Andrea et al., 1991) at the beginning and end of the course. Consistent with prior research, students' level of multicultural competence increased over the course. All three subscales on the MAKSS (Knowledge, Awareness, and Skills) showed a significant increase over time. More importantly, a one-year follow-up of 25 of the original 38 students who completed the course (66% follow-up rate) revealed that students' cultural competence (on all three MAKSS subscales) persisted over time.

Studies of Culturally Competent Internships

A few studies examined the effect of multicultural training as part of pre-doctoral internships. Sevig and Etzkorn (2001) reported on a weekly multicultural seminar for psychology and social work interns at a university counseling center. All interns were required to attend the seminar, which met weekly for 1½ hours and was one part of their year-long clinical internship training. The seminar included a diverse set of activities

including didactics on various multicultural groups (e.g., ethnic minority groups, women, social class groups, sexual orientation, physical ability, and religion), guest speakers, and presentations by each of the interns. Based on qualitative observation over seven years of internship cohort groups, the seminar was effective in increasing the cultural competence of the interns. The main limitation to the study was that it did not use an objective measure of cultural competence (i.e., one of the several validated multicultural counseling competence instruments). Instead it used students' written evaluations of the effectiveness of the seminar in conjunction with student journal entries, observations by seminar facilitators, and supervisors' review of interns' clinical work as measures of the seminar's effectiveness.

Manese and Wu (2001) evaluated the impact of an internship that infused aspects of multiculturalism throughout the year-long internship training. The authors reported on data obtained from 24 psychology interns gathered over a 10-year period at a large West coast university counseling center. The integrated multicultural internship training included 11 training seminars, requiring interns to carry an ethnically diverse caseload (e.g., 40-50% of clients are persons of color), participation in several community outreach programs, multicultural case supervision, written and oral clinical case presentations, and quarterly supervisor evaluations. Using pre-post internship scores on the Multicultural Counseling Awareness Scale-Form B (MCAS-B; Ponterotto et al., 1991), they found significant increases in scores on the Knowledge/Skills subscale (but not on the Awareness subscale) at the end of the internship. This change reflected a large effect size ($d = 0.67$).

Military Studies

Despite relatively many studies examining the effect of cultural competence training with civilian graduate students, only a single study could be found assessing the impact of cultural competence training in a military sample. Carter et al. (2006) studied the effects of a brief (3-hour) cultural competence workshop on a group of 196 uniformed services graduate medical students. Although there was a positive effect of the workshop on students' self-reported cultural competence, the generalizability of the study is limited to medical students and may not apply to military mental health providers, whose training is arguably much different. Furthermore, the authors created their own unique measure to assess students' cultural competence, and little is known about the psychometric properties of their instrument.

Meta-Analytic Studies

Smith and colleagues (2006) recently conducted a meta-analytic study on the efficacy of multicultural education. From over 2,000 potentially relevant citations covering a recent 30-year period, Smith and colleagues identified 82 quality studies (which includes all the studies in this section of this literature review). Two separate meta-analyses were carried out for retrospective studies ($n = 45$) and outcome studies ($n = 37$). Across the 45 survey studies representing 5,991 participants, the random effects weighted average effect size was 0.49, representing a moderate effect size according to Cohen's (1988) standards. Across the 37 outcome studies representing 2,132 participants, the average effect size was 0.92, which is a large effect size (Cohen, 1988). No differences in effect sizes were noted based on publication status (e.g., published vs. unpublished), sociodemographic variables (e.g., participant race/ethnicity, gender), type

of cultural competence measure, research methodology, or type of training (e.g., course, workshop). However, educational interventions explicitly based on extant theory had larger effect sizes than educational interventions that did not reflect any theory. Because of the strong support found in their meta-analyses, the authors concluded that there would be no benefit to conducting more studies on the efficacy of cultural competence training, and called for researchers to direct the field toward more critical questions using more rigorous designs (Smith et al., 2006).

Summary and Conclusions of Studies on Cultural Competence Training

In sum, the evidence appears strong supporting the efficacy of cultural competence training. The bulk of the cultural competence literature has included studies focusing on determining the effectiveness of cultural competence training (Worthington et al., 2007). The majority of these studies have been correlational survey studies using one of the four main self-report multicultural measures (e.g., CCCI-R; MCI; MAKSS, and MCAS) based on the competencies outlined by Sue et al. (1982, 1992). Most studies also have used convenience samples of college students, which limits the generalizability of these findings. Far fewer studies have been conducted that have used more empirical methodology. Most empirical studies have used pre-post-intervention designs. A few intervention studies have used control groups for comparison and represent the strongest support for the true efficacy of cultural competence training.

Cross-Cultural Experiences

Several researchers have observed that providers with frequent experience with culturally different persons are more culturally competent (e.g., Diaz-Lazaro & Cohen, 2001; Salzman, 2000). Cross-cultural experiences encompass a variety of forms

including ethnic minority clinical caseloads, immersion experiences with different ethnic groups, exposure to ethnic minority faculty or staff, exposure to ethnic minority coworkers, and exposure to ethnic minority family and friends.

Theory of the Effect of Cross-Cultural Experience

Although it makes sense that cross-cultural experience would increase an individual's cultural competence, at least one set of researchers have cited evidence from social psychology to explain how cross-cultural experiences might effect personal change. Diaz-Lazaro and Cohen (2001) explained how the social psychology "Contact Hypothesis" provides sound justification for research on assessing the role of person-to-person interactions between members of culturally different groups. Allport's (1954/1979) classic Contact Hypothesis, is among the most researched principles in psychology for reducing interracial prejudice (Diaz-Lazaro & Cohen, 2001). According to the hypothesis, intergroup contact will facilitate the reduction of intergroup prejudice and conflict as long as several conditions are met including program support by authority figures, equal and voluntary status of participants, cooperative interdependence among participants, and individuated interaction that disconfirms stereotypes that the groups hold of each other (Wittig & Grant-Thompson, 1998).

Some (e.g., Wittig & Grant-Thompson, 1998) have suggested that the principles of the Contact Hypothesis are an application of Festinger's (1957) classic social psychology Cognitive Dissonance theory. For example, an individual with negative attitudes towards a specific ethnic group but having a positive interaction with a member of that group would experience tension because of inconsistency between his negative attitudes and the current positive behavior being experienced. This internal tension

would then cause the individual to change his attitudes to be consistent with the new observed behavior. However, others have asserted that increased interracial contact reduces tension between groups because it provides information about the other (Forbes, 1997), which, in turn, likely increases individual self-confidence and perception of competence in future interactions with members of that particular ethnic group.

Survey Studies

Similar to studies on cultural competence training, the majority of studies on cross-cultural experience have used surveys of mental health providers to determine how well multicultural client case load correlates with cultural competence or how much multicultural experience contributes to the variance in cultural competence scores. For example, using a sample of 128 counseling psychology graduate students, Ottavi, Pope-Davis, and Dings (1994) found that client contact hours with persons of color significantly correlated ($r = 0.34$) with cultural competence awareness as measured by the Multicultural Counseling Inventory (MCI; Sadowsky et al., 1994). Similarly, Pope-Davis et al. (1995) reported that number of client contact hours with persons of color significantly positively correlated with multicultural competence (also using the MCI) in a national sample of 344 clinical and counseling psychology graduate students. Graduate students' diverse client hours were significantly associated with three of the four MCI subscales (Knowledge, Awareness, Skills, but not Relationship), but had the highest correlation with the Awareness subscale ($r = 0.28$). Crawford (2001) also found a significant correlation between number of multicultural clients and MCI scores in a sample of 25 Caucasian counseling psychology graduate students.

Two studies reported efficacy for the association of experience with ethnic minority clients and cultural competence in practicing psychologists. Sadowsky and colleagues (1998) examined self-reported multicultural counseling competencies among 176 university counseling center staff from centers across the U.S. Using the MCI as their main outcome measure, the authors found that counselors' number of ethnic minority and international clients significantly positively correlated with their perceived cultural competence ($r = 0.32$). This correlation is remarkably similar to the correlation ($r = 0.34$) found in Ottavi, Pope-Davis, and Dings (1994). Allison et al. (1996) surveyed 266 doctoral-level practicing counseling and clinical psychologists randomly selected from a mailing list of 600 American Psychological Association (APA) members. They operationalized respondents' number of ethnic minority clients (from each of four main groups: African Americans, Asian Americans, Hispanic, and Native American) on a 6-point scale that ranged from 0 (*none*) to 5 (*more than 15*). Multiple regression analyses revealed that respondents with more exposure (which, in addition to ethnic minority caseload, also included other factors such as experience with ethnically diverse faculty, multicultural case supervision, and multicultural training) reported more cultural competence than those with less exposure. Across all ethnic minority client groups, the number of cases with a particular ethnic minority group was the best predictor of self-rated multicultural competence. The authors concluded that therapists who treat certain diverse client groups tend to perceive themselves as being competent to serve those groups. They also concluded that the majority of psychologists feel at least some comfort in working with all ethnic minority groups.

Bellini (2002) also conducted a cross-sectional survey study. However, his sample included vocational rehabilitation counselors ($N = 175$) and a different operationalization of respondents' multicultural caseload. Multicultural caseload was the estimated proportion of ethnic minority clients on counselors' caseloads and included four categories: "none to 25%," "26 to 50%," "51 to 75%," and "more than 75%." Multicultural caseload was significantly positively correlated with total cultural competence scores on the MCI ($r = 0.24$). However, in multiple regression analyses, multicultural caseload did not contribute significant independent variance in total MCI scores. The author included several other variables in the regression analyses (e.g., race, gender, age, experience, education) that significantly predicted cultural competence and, therefore, may have attenuated the unique effects of multicultural caseload.

In a slightly different study, Menapace (1998) examined predictors of treatment effectiveness for Caucasian psychotherapists working with African American clients. From a random sample of American Psychological Association (APA) members, 58 Caucasian psychology graduate students and 216 practicing Caucasian psychologists completed the MCI and provided treatment completion rates for their African American clients. Multiple regression analysis showed that the best predictors of effective treatment of African American clients by these Caucasian therapists were clinical experience with African American clients and therapists' cultural competence.

Studies of Cross-Cultural Immersion Experiences

Several studies have examined cross-cultural immersion training experiences. In particular, a few studies have examined the impact of immersion experiences with various ethnic minority groups on providers' cultural competence. Salzman (2000)

examined the effects of a cross-cultural mentorship project on Caucasian counseling psychology graduate students. In this particular pilot mentoring project, seven graduate student mentors were matched with seven Native American public school mentees. The two-year project was designed to “provide a cross-cultural experience that would increase the cultural competence of the graduate student mentors, as well as support the positive growth and development of the young mentees” (p. 120). The mentors were expected to develop positive relationships with their mentees and to develop cultural awareness and knowledge through engagement in cultural activities and traditions of the Native American mentees. Although only qualitative data were collected (e.g., informal interviews and surveys, anecdotal evidence), the results of the mentorship suggested that mentors increased their cultural competence by gaining an awareness of cultural differences, a motivation to explore their own cultural influences, and an awareness of some of the dynamics of cross-cultural interactions.

Diaz-Lazaro and Cohen (2001) assessed the impact of a multicultural course that was mostly an immersion experience on the cultural competence of 15 counseling psychology graduate students. The semester-long course required students to immerse themselves in one of the culturally different groups by actively involving themselves in cultural events of the group and interacting at a meaningful level with the members of that group (i.e., they were not allowed to be casual peripheral observers). At the end of the course, students were required to write a paper about their cultural immersion experience. The authors modified a measure of Hispanic acculturation to assess the amount of interaction students experienced with four separate ethnic minority groups: African Americans, Asian Americans, Hispanics, and Native Americans. Results showed

a moderate, positive correlation ($r = 0.31$) between students' prior cross-cultural contact with the four main ethnic minority groups and their self-reported cultural competence as measured on the Multicultural Awareness, Knowledge, and Skills Survey (MAKSS; D'Andrea et al., 1991). In particular, prior multicultural interaction was strongly positively related to multicultural awareness, but not significantly related to knowledge or skills. Additionally, pre- and post course analyses showed that the cultural competence course, with its large emphasis on cultural immersion experiences, was successful in increasing students' cultural competence. The main strength of this study and the way it is different from the others in this sub-topic area, was the authors' comprehensive assessment of cross-cultural experiences (i.e., their self-report measure contained 25 items reflecting different types of contact with the four main ethnic minority groups).

Only one study could be found in the literature that assessed the effect of cross-cultural social experiences with family, friends and coworkers. In the study by Menapace (1998) Caucasian therapists' social experience with African Americans did not significantly predict treatment effectiveness with these particular clients.

Summary and Conclusions of Studies on Cross-Cultural Experiences

In summary, there is some evidence that cross-cultural experiences have a positive affect on counselors' cultural competence. There have been far fewer studies examining cross-cultural experiences on cultural competence than studies examining cultural competence training. Few studies have explicitly focused on the effects of cross-cultural experiences with the exception of Diaz-Lazaro and Cohen (2001). Most studies included multicultural experience as one of several secondary variables. Similar to the cultural competence training literature, most of these studies used cross-sectional survey

methods to assess the effect of cross-cultural experience. Correlations between prior multicultural client caseloads and self-perceived cultural competence ranged from 0.24 to 0.34, demonstrating a modest affect on cultural competence. It is likely that prior cross-cultural experience is an important consideration for increasing cultural competence. However, because of the complexity of cultural competence, the evidence reviewed seems to indicate that it is neither a necessary nor sufficient cause of cultural competence.

Provider Ethnicity

A natural extension to studying the effect of cross-cultural experiences on cultural competence is studying the effect of provider race/ethnicity on cultural competence. It makes sense that a member of an ethnic minority group who experiences daily contact with the dominant cultural group (i.e., European Americans) experiences multicultural training through life experiences (Holcomb-McCoy & Myers, 1999). Ethnic minority counselors may be better prepared to address the needs of ethnically diverse clients given the common background and experiences shared with these clients (Pope-Davis & Ottavi, 1994).

Correlational Studies Using the MCI

Similar to cultural competence training and cross-cultural experience literature, several studies on the effects of provider ethnicity also have used cross-sectional survey methods. Three studies have used the Multicultural Counseling Inventory (Sodowsky et al, 1994) to compare multicultural competencies of counselors and graduate students, based on counselor ethnicity. Pope-Davis and Ottavi (1994) administered the MCI to 220 mostly doctoral level practicing counselors at university counseling centers across the U.S. Results showed that ethnicity was the only demographic variable associated with

differences in cultural competence. Specifically, Asian American and Hispanic counselors scored significantly higher than Caucasian counselors on the Knowledge subscale. All three ethnic minority groups (African American, Asian American, and Hispanic) scored significantly higher than Caucasians on both the Awareness and Relationship subscales. There were no differences among the groups on the Skills subscale. Pope-Davis et al. (1995) reported similar results among a national sample of 344 counseling and clinical psychology graduate students. Because of the small number of ethnic minority counselors, all minorities were combined into a single ethnic minority group for comparison to Caucasian counselors. Similar to Pope-Davis and Ottavi (1994), ethnic minorities reported significantly more competence in multicultural awareness, knowledge and relationships than Caucasians. Again, there were no differences between the two groups in multicultural skills. More recently, among 364 licensed counselors Whitney (2007) also found that ethnic minorities reported higher levels of multicultural awareness and knowledge than Caucasians.

Granello and Wheaton (1998) also used the MCI, but with a sample of 180 vocational rehabilitation counselors in one Midwestern state. African American counselors scored significantly higher than Caucasian counselors on the MCI subscales of Awareness and Relationships, but there were no differences between the groups on the Skills or Knowledge subscales. The authors acknowledged that because of the relatively low number of African Americans in the sample ($n = 19$), the study may have been underpowered.

Correlational Studies Using other Cultural Competence Measures

Three studies used other cultural competence measures to assess ethnic differences in cultural competence. Holcomb-McCoy and Myers (1999) developed and used their own measure of multicultural competence, the 61-item Multicultural Counseling Competence and Training Survey (MCCTS). Among a sample of 500 practicing counselors randomly selected from the American Counseling Association membership, ethnic minorities reported more cultural competence than Caucasian counselors. Ethnicity was the only demographic variable that significantly influenced counselor cultural competence. Ethnic minorities reported higher scores on four of the five factor-analyzed MCCTS subscales: Knowledge, Awareness, Racial Identity Development, and Skills (fifth subscale called “Definitions”). This finding is consistent with other research within this area with the exception of ethnic minorities scoring higher than Caucasians on multicultural skills. However, the fact that their cultural competence measure (MCCTS) is relatively new and untested should be considered. In addition, the Skills subscale of the measure contains only three items.

Whitehead (2004) also used the MCCTS to examine the self-perceived multicultural competence in a sample of 148 rehabilitation counselors. Consistent with prior research, ethnic minority counselors rated themselves as significantly more culturally competent than Caucasian counselors. Unlike the study by Holcomb-McCoy and Myers (1999), the author only found a difference between ethnic groups on the MCCTS Knowledge subscale. This study may have been underpowered to detect differences on other subscales when compared to the Holcomb-McCoy and Myers (1999) study that used a much larger sample size of 500.

Acosta (1995) used the Multicultural Awareness-Knowledge-Skills Survey (MAKSS; D'Andrea et al., 1991) to assess self-reported cultural competence in a sample of 117 licensed psychologists practicing in California. Results revealed that ethnicity was a significant independent predictor of cultural competence. When respondents' prior multicultural competence training was statistically accounted for, African American, Asian American and Latino psychologists rated their competence higher than Caucasian psychologists. In addition, psychologists rated themselves as most competent working with their own ethnic group and ethnic minority psychologists rated their competence with Caucasians higher than with the other two ethnic groups.

Multiple Regression Analysis Studies

Two studies utilized more sophisticated multiple regression analyses to assess ethnic differences in cultural competence. Sadowsky et al. (1998) examined several correlates of self-reported multicultural competence in a sample of 176 university counseling staff, the majority of whom were doctoral-level psychologists. Using the MCI as their main outcome measure, they found that counselor race was a significant independent predictor of cultural competence. Counselor race accounted for 7% of the variance in MCI full-scale scores. Hispanics reported higher cultural competence than Caucasians. Although Asian Americans and African Americans rated themselves higher than Caucasians, these differences were not statistically significant, unlike other studies that found this difference (e.g., Granello & Wheaton, 1998; Pope-Davis & Ottavi, 1994). Ethnic minority counselors also scored higher than Caucasian counselors on three of the four MCI subscales including Awareness, Knowledge, and Relationship. This result is

consistent with the correlational studies previously reviewed (e.g., Pope-Davis & Ottavi, 1994; Pope-Davis et al., 1995).

Bellini (2002) also used the MCI as the main multiple regression criterion variable in a study of 175 practicing vocational rehabilitation counselors. There was a slightly higher percentage of variance in MCI total scores accounted for by counselor race (11% vs. 7% found in Sadowsky et al. 1998). This finding was above and beyond counselor age, gender, experience, and education variables and was also the largest share of variation in the regression model. In addition, all four ethnic minority groups in the sample (African American, Latino, Asian American, and Multiracial) reported higher MCI total and subscale scores than did Caucasian counselors. Counselors who endorsed more than one ethnic minority group (multiracial) had the highest scores overall on MCI total and the four subscales. For the MCI subscales, the largest mean difference between ethnic minorities and Caucasians was in Awareness. This finding is again consistent with previous research.

Studies Using Objective Measures of Cultural Competence

Only one study used objective observer ratings of cultural competence to assess ethnic differences in cultural competence. Constantine (2001a) examined real counseling sessions of 52 graduate student counselor-client dyads at a community counseling practicum site located in the Northeast region of the U.S. Ethnic minority clients being seen for DSM-IV Adjustment Disorder-related problems rated the cultural competence of their randomly assigned graduate student counselor using the Cross-Cultural Counseling Inventory-Revised (CCCI-R; LaFromboise et al., 1991) at the completion of a single intake session. African American and Latino counselors were rated by clients as having

higher cultural competence than their Caucasian counselor counterparts. Although not the main focus of the study, African American and Latino counselors also reported more cultural competence than their Caucasian counterparts on a self-report measure (i.e., MCI). This study supports the consistent findings from self-report studies that ethnic minority counselors are generally more culturally competent than Caucasians. The author also found that there was relatively little relationship between self-reported multicultural competence (MCI) and observer-reported cultural competence (CCCI-R). This finding is even more important because if these are two different theoretical constructs, then evidence from objective ratings of cultural competence would seem to be more credible.

Summary and Conclusions of Studies of Provider Ethnicity

In conclusion, findings across studies are consistent and indicate that counselors of color generally perceive themselves to be more culturally competent than Caucasian counselors. There are several potential reasons for these findings. As mentioned at the beginning of this section, it makes sense that ethnic minority clients would perceive themselves to be more culturally competent than Caucasians. Ethnic minority counselors are likely to have similar shared experiences and therefore are more aware of cultural influences in the counseling process (Holcomb-McCoy & Myers, 1999). It is also possible that ethnic minority clients overestimate their competence or, in contrast, that Caucasian counselors underestimate their competence.

There are several limitations to the studies in this section that should be considered. For example, the studies on ethnic differences, similar to the studies on the effect of multicultural training and cross-cultural experiences, generally used less

rigorous statistics (e.g., correlational) and methods (e.g., cross-sectional, convenience samples, self-report surveys). These types of methods prohibit making directional (i.e., causal) inferences. Although it appears to not make sense that cultural competence would cause counselors to be of a particular race/ethnicity, only more rigorous methodology could positively rule this out. A more rigorous method would be a cross-over design in which clients of various ethnicities undergo similar styles of counseling or therapy with various ethnic counselors/therapists, and then independently rate counselors' cultural competence.

Another limitation of these studies is their use of self-report measures. Many researchers have concluded that self-report measures, especially the type used in this particular subject matter, are susceptible to socially desirable responding (e.g., Sadowsky et al, 1998; Pope-Davis et al., 1995). In addition, there is some doubt that self-reported and observer-reported cultural competence are measuring the same theoretical construct, as evidenced by Constantine (2001a).

Multicultural Case Conceptualization Ability

Some researchers have identified the need for objective assessments of cultural competence because of the shortcomings of self-report instruments including the influence of socially desirable responding (e.g., Constantine, 2001a; Sadowsky et al., 1998; Worthington et al., 2000) and the inability to measure actual performance (Worthington et al., 2007). Multicultural case conceptualization ability has been identified as an important component of cultural competence and one method for demonstrating multicultural counseling competence (Constantine, 2001c; Ladany et al., 1997). Sadowsky et al. (1994) were some of the first researchers to suggest that case

conceptualization ability may be one means of assessing counselors' demonstrated cultural competence.

Multicultural case conceptualization ability has been identified as a provider's demonstrated ability to understand the effect of important racial factors on minority clients' presenting concerns and integrate these factors into their case conceptualization (Ladany et al., 1997). To conceptualize clients from a multicultural framework, a multiculturally competent provider would be aware of racial dynamics and be skilled at integrating the impact of cultural factors on clients' presenting problems and then be able to develop culturally responsive treatment programs (Ladany et al., 1997). For example, a less sophisticated conceptualization might include a therapist viewing the depressed mood of a student of color as a symptom of clinical depression. However, a more sophisticated conceptualization might incorporate multiple etiologies such as the student feeling isolated and alienated in a predominantly Caucasian university, a lack of support systems, the student's level of racial identity development, or a student's perception of how they view themselves in relation to their world (Ladany et al., 1997).

Relationship of Multicultural Case Conceptualization Ability to Other Factors

Findings on the role of multicultural case conceptualization ability (CCA) in cultural competence have been mixed. Although he did not directly measure cultural competence, Likier (2005) found that multicultural training was positively related to multicultural CCA in a sample of 57 outplacement counselors. Similarly, Constantine (2001c) found that increased levels of multicultural training and empathy predicted greater incorporation of racial and cultural factors in counselors' case conceptualizations. Constantine et al. (2005) examined the effect of racial identity schemas of Caucasian

counseling psychology doctoral student supervisee-supervisor dyads. Among 50 dyads, the authors found that dyads with more advanced Caucasian racial identity schemas were independently rated higher in multicultural CCA than their counterparts in dyads with less sophisticated, more racist-like schemas.

Relationship of Multicultural Case Conceptualization Ability to Cultural Competence

In a direct study of cultural competence, Ladany and colleagues (1997) found that there was virtually no relationship between multicultural CCA and self-reported cultural competence. To assess multicultural CCA, the authors used a common method of coding the content of counseling sessions. Trained coders rated the extent to which participants integrated racial factors into the etiology of and treatment for a client's presenting problems. Study participants included 116 counseling graduate students who viewed an intake of a 19-year old female African American undergraduate student presenting for adjustment-related difficulties and symptoms of depression. The lack of a significant finding may have been related to the reliance on only one method for assessing multicultural CCA. In addition, this assessment was based on respondent's viewing of a single client session. It is likely that their actual ability may be different if it had been assessed over time and with different clients.

Among a sample of 135 members of the American Counseling Association, Constantine and Ladany (2000) failed to find a relationship between multicultural CCA and the four main multicultural competence measures (CCCI-R, MAKSS, MCI, and MCKAS). The authors used the same coding method and similar client case as Ladany et al. (1997) to assess for multicultural CCA.

Allstetter-Neufeldt et al. (2006) conducted a qualitative study of multicultural CCA in a group of 17 counseling psychology graduate students from across the U.S. Each participant viewed two brief videos of an Asian American client and a Caucasian client. After each video participants were asked to respond to questions in a conversational fashion. Experts independently rated responses for multicultural content. Approximately one fourth of information used by all respondents in their conceptualizations included issues related to diversity. Students were three times more likely to use diversity information when conceptualizing the Asian American client than when conceptualizing the Caucasian client. In addition, one third of Caucasian students and 63% of ethnic minority students incorporated a culturally responsive treatment plan.

Summary and Conclusions of Multicultural Case Conceptualization Ability

Findings on the association between cultural competence and multicultural case conceptualization ability appear mixed. Because of the dearth of the literature in this specific area, further studies should be conducted. The most conclusive study to date appears to be the study conducted by Constantine and Ladany (2000) because they directly assessed multicultural CCA on all four of the main multicultural counseling competence measures. Constantine and Ladany (2000) also found that respondents' multicultural CCA scores generally fell in the low to middle levels. Given the fact that respondents perceived themselves to be highly multicultural competent, it is likely that they may have overestimated their level of cultural competence. This interpretation has important implications and has been suggested by others (e.g., Constantine, 2001a; Sadowsky et al., 1998). It is unclear if multicultural case conceptualization ability is part of, or distinct from, generalized case conceptualization ability (Ladany et al., 1997).

Therefore, there appears to be potential for many future studies on the role of multicultural case conceptualization ability in cultural competence.

Racial Identity Development Status

Racial identity relates to how one feels, thinks, and acts in regards to oneself, others within one's identified racial group, and others outside one's identified racial group (Helms, 1990). Sabnani and colleagues (1991) argued that Caucasian counselors' racial identity (or consciousness) development is an integral component of cultural competence. Although people of all races have the potential to experience racial identity development, the majority of research has been conducted on Caucasian racial identity development (Constantine et al., 2005).

Theory of Racial Identity Development

The most researched and cited Caucasian racial identity development model is Helms's (1990, 1995) White Racial Identity Theory (Sue & Sue, 2003). According to Helms (1990, 1995), Caucasians experience six ego schemas in their process of developing a mature (i.e., non-racist) racial identity: (1) *Contact*, characterized by Caucasians' naïveté about race and racism and endorsement of a "color-blind" perspective in relation to ethnic minorities; (2) *Disintegration*, which is reflected in Caucasians' self-identification as "White", along with feelings of guilt or ambivalence about being White; (3) *Reintegration*, is a regressive schema in which Caucasians retreat to the dominant ideology (i.e., positive feelings toward Caucasians and Caucasian superiority) and feel hostility toward minorities to resolve the dissonance experienced in the previous schema; (4) *Pseudo-Independence*, in which Caucasians are usually propelled by a painful or insightful encounter to begin to understand and acknowledge

their contribution to racism from an intellectual (vs. experiential or affective) viewpoint; (5) *Immersion-Emersion*, in which Caucasians achieve a personal definition of “Whiteness” and “racism” through increased willingness to confront their own biases and become racial activists, understanding occurs from a more experiential and affective viewpoint; and (6) *Autonomy*, in which Caucasians reach a comfortable nonracist self-identity and appreciate their own and others’ racial group memberships and cultural values and actively seek out cross-racial experiences. The first three stages are viewed as less mature racial development, whereas the latter three stages are more mature or advanced racial development (Constantine et al., 2005). The general hypothesis is that an outcome for counselors at the latter (more mature) stages of racial identity development includes enhanced multicultural interactions (i.e., cultural competence).

Measuring Racial Identity Development

The White Racial Identity Attitude Scale (WRIAS; Helms & Carter, 1990a) was developed to measure the degree to which Caucasians endorse five of the six schemas (Immersion-Emersion is not included) with each schema representing its own subscale. The WRIAS is the measure most often used to assess for counselors’ level of racial identity development in studies examining this construct.

Studies of Racial Identity Development and Cultural Competence

Several studies have examined the relationship between racial identity development and cultural competence. Ottavi, Pope-Davis, and Dings (1994) used the WRIAS among a sample of 128 Caucasian counseling psychology graduate students. In general, racial identity stages were significantly related to multicultural competence as measured on the Multicultural Counseling Inventory (MCI; Sadowsky et al., 1994),

above and beyond demographic (e.g., gender, age), educational (e.g., multicultural training), and clinical variables (e.g., multicultural clinical and supervision hours). More specifically, healthier Caucasian racial identity status (i.e., Pseudo-Independence and Autonomy subscales) had a large positive correlation with all the subscales of the MCI (Knowledge, Awareness, Skills, and Relationship). Ladany and colleagues also used the WRIAS among a sample of 116 mostly counseling psychology graduate students. Consistent with Ottavi et al. (1994), Caucasian racial identity status was positively related to multicultural competence as measured by the CCCI-R. In addition, ethnic minority counselors' racial identity development, as measured by Cultural Identity Attitude Scale (CIAS; Helms & Carter, 1990b), also was positively related to self-reported cultural competence.

Cummings-McCann and Accordini (2005) compared racial identity status with cultural competence in a sample of 115 experienced Caucasian master's level rehabilitation counselors. The authors used a measure similar to Helms and Carter's (1990a) WRIAS called the Oklahoma Racial Attitude Scale-Preliminary Form (ORAS-P; Choney & Behrens, 1996). The ORAS-P contains seven stages that closely match the six stages of the WRIAS, but with better psychometric properties (Cummings-McCann & Accordini, 2005). Self-reported cultural competence was measured with the MCI (Sodowsky et al., 1994). Racial identity development explained significant independent variance in cultural competence above and beyond counselor education, multicultural client caseload, and prior multicultural training.

The results of Constantine et al. (2005) were consistent with previous findings that more advanced Caucasian racial identity status was associated with self-perceived

multicultural competence among a sample of 50 Caucasian counseling psychology doctoral students. The authors also found that advanced racial identity status was associated with multicultural case conceptualization ability.

Vinson and Neimeyer (2003) conducted one of the only longitudinal assessments of cultural competence. The study included 44 counseling psychology graduate students. Self-reported multicultural competence was measured with the Multicultural Counseling and Awareness Scale-Form B (MCAS-B; Ponterotto et al., 1991). Caucasian racial identity development was measured with the WRIAS. The People of Color Racial Identity Attitude Scale (POCRIAS; Helms, 1996) was used to measure racial identity schemas of ethnic minorities. Consistent with other research, more mature racial identity was strongly associated with cultural competence, for Caucasian and ethnic minority graduate student counselors. A two-year follow up found that multicultural competence remained stable, whereas racial identity status varied over time. The authors speculated that instability might be a result of a non-linear progression through the identity stages.

White Racial Identity Development and Multicultural Training

Two studies have examined the effect of multicultural training on Caucasian racial identity status. Brown, Parham, and Yonker (1996) measured WRIAS scores of 35 Caucasian counseling psychology graduates before and after a 16-week multicultural counseling course. The course targeted three areas: counselor self-awareness, knowledge of five ethnic minority groups, and development of preliminary skills to counsel diverse clients. The results indicated that the course, in general, changed the racial identity attitudes of Caucasian counselor trainees. More mature racial identity schemas (i.e., Pseudo-Independence, Autonomy) were developed over the course of the 16-week

course. Neville and colleagues (1996) found similar results in a group of 38 counseling psychology graduate students. The authors examined the effects of three separate semester-long multicultural courses at three predominantly Caucasian universities located in the Mid-west, on the East coast, and on the West coast. The authors found that the same two mature WRIAS subscales (i.e., Pseudo-Independence, Autonomy) as those in Brown et al. (1996) increased over the semester. Additionally, in a one-year follow up, more positive racial identity attitudes were sustained over time.

Summary and Conclusions of Studies of Racial Identity Development

In sum, although the literature is relatively scant, there appears to be support for the association between racial identity attitude status/development and cultural competence, especially for Caucasian counselors. There also appears to be some evidence that ethnic minority racial identity development is positively associated with multicultural competence, although more studies need to be conducted to confirm this conclusion. Evidence for the association between racial identity status and cultural competence is further strengthened by evidence that multicultural training influences cultural competence and racial identity status. Similar to other correlates of cultural competence (e.g., prior multicultural training, cross-cultural experience, multicultural case conceptualization ability), racial attitude development appears to be an important, but not necessarily sufficient, component of mental health provider cultural competence.

Color-Blind Racial Attitudes

A concept that has recently received increased attention is the association between providers' color-blind racial ideology and their cultural competence. Color-blind racial ideology has emerged as a promising theoretical concept to characterize new forms of

racial attitude expression (Neville et al., 2000). Neville and colleagues (2000) were some of the first researchers to suggest a link between color-blind racial ideology and cultural competence. These authors noted that the concept of color-blind racial attitudes is theoretically consistent with multicultural competence because it assesses a specific component of multicultural competence, specifically, one's knowledge and awareness of the existence of racism.

Defining Color-Blind Racial Attitudes

Neville et al. (2000) define color-blind racial attitudes as “the belief that race should not and does not matter” (p. 60). This egalitarian belief is based on the admirable notion that all racial/ethnic groups are and should be socially and economically equal (Burkard & Knox, 2004). However, many have argued and research has shown that race does matter (Neville et al., 2000). The American Psychological Association (APA, 1997), citing evidence from over 20 years concluded that “we cannot be, nor should we be color-blind” (p. 3). APA (1997) further argued that color-blind racial ideology “ignores research showing that, even among well-intentioned people, skin color...figures prominently in everyday attitudes and behavior. Thus to get beyond racism and other similar forms of prejudice, we must first take the differences between people into account” (p. 2). Recent research has supported the fact that well-intentioned providers demonstrate implicit biases towards ethnic minorities directly resulting in their lower quality health care (Green et al., 2007). This finding occurred, despite providers' explicit proclamation of non-biased, egalitarian beliefs.

Neville, Spanierman, and Doan (2006) define color-blind racial attitudes as “the denial, distortion, and/or minimization of race and racism” (p. 276). They go on to

explain that color-blind racial ideology is a “dominant racially based framework that individuals, groups, and systems consciously or unconsciously use to justify the racial status quo or to explain away racial inequalities in the United States” (p. 276).

Burkard and Knox (2004) concluded “individuals holding color-blind racial attitudes tend to deny the individual, institutional, and cultural manifestations of racism and believe that race has little meaning in people’s lives” (p. 388). They postulate that providers holding high color-blind racial attitudes might continue to believe that race does not affect ethnic disparities in health care and may hold ethnic minorities solely responsible for continued social injustices. They suggest that providers with this belief may unknowingly perpetuate racism in the psychotherapy process or be unresponsive to salient racial or cultural issues within a therapeutic context.

Measuring Color-Blind Racial Attitudes

In response to the growing literature on color-blind racial attitudes, Neville and colleagues (2000) constructed a 20-item self-report measure called the Color-Blind Racial Attitude Scale (COBRAS) to assess cognitive dimensions of color-blind racial attitudes. Through a series of studies, the authors demonstrated the criterion and discriminant validity and reliability of this new scale. The COBRAS was significantly positively correlated with two measures of racial prejudice (concurrent validity), suggesting that higher levels of color-blind racial attitudes are associated with greater racial prejudice. Exploratory and confirmatory factor analyses of the COBRAS revealed three factors: (1) *Unawareness of Racial Privilege* (7 items that explained 31% of the variance); (2) *Institutional Discrimination* (7 items explaining an additional 8% of the variance); and (3) *Blatant Racial Issues* (6 items explaining 6% of the variance). The

authors also found that African Americans and Latinos, on average, evidenced less color-blind attitudes than Caucasians. Women also demonstrated less color-blind attitudes than men.

Studies of Color-Blind Racial Attitudes and Cultural Competence

Chao (2005) reported that color-blind racial attitudes were a significant independent negative predictor of self-reported multicultural competence. In particular, higher levels of color-blind racial attitudes were associated with lower self-reported cultural competence, supporting Neville et al.'s (2000) hypothesis. The author used hierarchical multiple regression analysis with Multicultural Counseling Knowledge and Awareness (MCKAS; Ponterotto et al., 2002) total scores as the criterion variable and the COBRAS as the primary predictor variable in a sample of 338 members of either the American Psychological Association or the American Counseling Association. Color-blind racial attitudes had a substantial effect size (i.e., R^2 change = 0.29) found in all the cultural competence literature reviewed. Moreover, this effect size was found despite significant variance (i.e., R^2 change = 0.23) accounted for by other important variables including social desirability, racial status, ethnic identity status, and prior multicultural training. The effect of color-blind racial ideology was the largest of any of the cultural competence correlates found in the literature.

Neville, Spanierman, and Doan (2006) conducted a similar study in two separate samples of mental health workers in a Midwestern state ($n = 79$) and graduate students and mental health professionals from a Midwestern university ($n = 51$). Similar to Chao (2005), Neville and colleagues also used multiple regression analyses and the MCKAS and COBRAS measures to assess self-reported cultural competence and color-blind racial

attitudes, respectively. Results were consistent with Chao (2005) indicating that color-blind racial ideology was significantly inversely related to self-reported multicultural competence. COBRAS scores exhibited a large effect size (i.e., R^2 change = 0.21) after accounting for social desirability, participant ethnicity, and prior multicultural training, again similar to Chao (2005). Color-blind attitudes also were significantly inversely related to participants' multicultural case conceptualization ability (i.e., demonstrated cultural competence), although the effect size was smaller (i.e., R^2 change = 0.09).

Summary and Conclusions of Studies of Color-Blind Racial Attitudes

There appears to be some evidence linking color-blind racial attitudes with cultural competence in mental health professionals. The main limitation to this work is the relative dearth of studies. Because color-blind racial attitudes are an emerging focus within the cultural competence field, it is likely that more studies will be conducted to explicate the unique role of color-blind racial attitudes within cultural competence. As with most new areas of research, the few studies conducted on this topic have used simple methodology and statistics (e.g., cross-sectional surveys, self-reports, correlational statistics). However, the strength of the few studies in this area is the large effect sizes that were found. The effect sizes demonstrated by color-blind racial ideology are among the largest found in the entire cultural competence field.

Social Desirability

Providers' social desirability attitudes also have been measured and discussed within the context of cultural competence assessment. However, the association between social desirability attitudes and cultural competence has been viewed negatively, with social desirable responding frequently included in studies as a nuisance variable that is

statistically accounted for. One of the main criticisms of the self-report cultural competence measures is their susceptibility to distortion due to socially desirable responding (Constantine & Ladany, 2000; Pope-Davis & Dings, 1995; Sadowsky, 1996).

Social desirability refers to a pattern of responding that reflects some individuals' need to publicly present themselves in a favorable manner, rather than to report their actual feelings, thoughts, or behavior (Paulhus, 1991). Given the sensitive nature of cultural competence, it is not surprising that many individuals want to appear competent in this area, or at least want to not appear culturally biased and/or racially prejudiced. Diversity, racism, and inequities associated with being an ethnic minority have been discussed and evaluated in a variety of contexts and mediums for several years. This heightened awareness likely leads individuals to not want to appear politically insensitive by acknowledging their potential lack of knowledge, awareness, and skills in interacting with ethnic minorities.

In addition, most of the self-report measures used in the cultural competence literature are face valid. It is not difficult for most of the respondents, who are, in general, highly educated professionals, to understand the meaning and implications of the questions in these measures. Additionally, many cultural competence studies freely divulge their purpose and procedures through the informed consent process, making it even more likely that participants might respond in a socially desirable manner. One of the few methodological strategies to minimize the effect of social desirable responding is to use anonymous surveys or to guarantee participants' confidentiality. Because this strategy by itself may not be sufficient, researchers have suggested that some measure of

social desirability be included in cultural competence studies using traditional self-report measures (e.g., Constantine & Ladany, 2000; Sadowsky, 1996).

Studies of Social Desirability and Cultural Competence

Several studies have documented significant association between respondents' social desirability and their self-reported cultural competence. Among a sample of 38 practicing professional counselors at several university counseling centers and 17 counseling psychology graduate students, Worthington et al. (2000) found that social desirability as measured on the Marlowe-Crowne Social Desirability Scale (MCSDS; Crowne & Marlowe, 1960) demonstrated significant positive correlations with MCI total scores and with the MCI Relationship subscale ($r_s = 0.31$ and 0.36 , respectively).

Although social desirability was moderately correlated with the MCI, social desirability did not make a significant contribution to observer-evaluated cultural competence scores (as measured on a self-report version of the CCCI-R) in a multiple regression analysis.

Among a sample of 180 vocational rehabilitation counselors Granello and Wheaton (1998) also found small, but significant correlations between the Marlowe-Crowne scale and the MCI (full scale $r = 0.22$; Awareness subscale $r = 0.18$, Relationship subscale $r = 0.27$, and Knowledge subscale $r = 0.18$).

Sadowsky and colleagues (1998) used their own unique measure of social desirability, the Multicultural Social Desirability Scale (Sadowsky et al., 1993), to assess the association between social desirability and cultural competence as measured with the Multicultural Counseling Inventory (MCI; Sadowsky et al., 1994) in a sample of 176 university counseling staff. The Multicultural Social Desirability Scale measures a preference to make a good impression on others by self-reporting that one is very

responsive in all personal and social interactions with minorities and that one always favors institutional policies for diversity. There was good convergent validity of this measure with the Marlowe-Crowne Social Desirability Scale. Social desirability was a significant independent positive predictor of MCI full scale scores. Social desirability demonstrated a medium effect size (i.e., R^2 change = 0.06) according to Cohen's (1988) standards. Asian American respondents generally had higher social desirability scores than did the other ethnic groups. The authors cited evidence to explain this finding as a manifestation of the general stereotype that Asians prefer to 'save face' in social situations.

Burkard and Knox (2004) also found significant correlations between social desirable responding (also measured with the Marlowe-Crowne Social Desirability Scale) and aspects of the therapeutic process (i.e., therapists' capacity for empathy, therapists' attribution of a client's presenting problem to the client) in a sample of 247 practicing psychologists.

Constantine and Ladany (2000) conducted a direct assessment of the association between social desirability and four of the most frequently used multicultural competence measures: the self-report version of the Cross-Cultural Counseling Inventory-Revised (CCCI-R; LaFromboise et al., 1991); the Multicultural Awareness/Knowledge/Skills Survey (MAKSS; D'Andrea et al., 1991); the Multicultural Counseling Inventory (MCI; Sadowsky et al., 1994); and the Multicultural Counseling Knowledge and Awareness Scale (MCKAS; Ponterotto et al., 1999). To assess this relationship, the authors used multiple regression analysis with all of the subscales of the self-report multicultural competence measures as predictor variables and social desirability (measured with the

MCSDS) as the criterion variable. The overall proportion of social desirability accounted for by the subscales was significant (multivariate effect size = 0.24). Follow-up analyses revealed that social desirability was significantly positively associated with four of the ten subscales: MAKSS Knowledge, MCI Relationship, CCCI-R (full scale score because CCCI-R factor analyses have revealed a single factor solution), and MCKAS Awareness (this subscale demonstrated an inverse relationship). Based on these results, the authors concluded that administration of the CCCI-R, MAKSS, and MCI may need to be accompanied by a social desirability measure to control for the potentially inflated self-ratings.

Summary and Conclusions of Studies of Social Desirability and Cultural Competence

Some researchers have not found a significant relationship between cultural competence and social desirability (e.g., Chao, 2005; Lippy, 2007). However, because most of the social desirability research has found small to medium effects on cultural competence, the predominant view of including measures of social desirability when using self-report cultural competence measures appears warranted. In addition, the extensive literature documenting the implicit bias and stereotypes of most individuals coupled with the sensitivity of the topic of cultural competence are also important reasons for controlling for social desirability when administering self-report cultural competence measures.

Military Health Care Provider Cultural Competence

Despite the recognized need for and increase in cultural competence training for military health care providers (e.g., Carter et al., 2006), to our knowledge cultural competence has never been empirically assessed and reported in military health care

providers. Recently we collected and analyzed data on levels and predictors of cultural competence in 178 active duty military primary care physicians (i.e., Family Medicine, Internal Medicine, and Pediatric specialties). We used an online survey format to assess respondents' self-reported cultural competence using a measure designed specifically for medical providers (Inventory for Assessing the Process of Cultural Competence Among Health Care Professionals-Revised, IAPCC-R; Campinha-Bacote, 1998). Contrary to our predictions and the published literature, Caucasian physicians reported higher levels of cultural competence than ethnic minority physicians. Also, in contrast to our prediction and the published literature, physicians' prior cultural competence training and cross-cultural clinical experience were associated with decreased self-reported cultural competence. It is not clear whether these findings reflect a unique situation among military physicians.

A search of the literature revealed no studies assessing cultural competence in military mental health providers. Although cultural competence training is being conducted in at least one major military medical education pipeline (i.e., Uniformed Services University of the Health Sciences), predictors of cultural competence and actual baseline levels of cultural competence have never been assessed and reported in the military health care system. Because of the large and ethnically diverse population in the military and because of increased deployments of military providers to geographically and culturally diverse regions, it is important to examine the cultural competence of military mental health providers and their ability to meet these increasing needs in military medicine.

Study Purpose

Therefore, the purpose of this study was to assess the cultural competence of military mental health providers. Assessing the cultural competence of military providers will provide baseline knowledge of the status of cultural competence in this population. Additionally, this study examined modifiable and non-modifiable predictors of cultural competence. Determining predictors of cultural competence in military providers may help inform training and education strategies to increase the cultural competence of military providers. The ultimate goal to increase the cultural competence of military providers includes increased quality of care, better treatment outcomes, and an overall more effective military mental health system. In addition, because the majority of cultural competence studies have used graduate student samples, this study extended the literature by assessing cultural competence in a sample of practicing providers.

Specific Aims

- (1) To assess the cultural competence of military mental health providers (psychologists, psychiatrists, social workers).
- (2) To determine if modifiable (e.g., amount of cultural competence training, amount of clinical experience with ethnic minorities) and non-modifiable (e.g., age, gender, ethnicity) variables significantly and independently predict cultural competence in military mental health providers.

Hypotheses

One: Amount of Cultural Competence Training

Mental health providers who have had more cultural competence training will be more culturally competent (as measured by the California Brief Multicultural Competence Scale; CBMCS) than providers with less training, regardless of (accounting for) socially desirable responding, provider gender, provider ethnicity, and number of years of practice as a military mental health provider.

Two: Amount of Cross-Cultural Clinical Experience

Mental health providers with more experience working with ethnic minorities will be more culturally competent (as measured by the CBMCS) than providers with less experience working with ethnic minorities, regardless of (accounting for) socially desirable responding, provider gender, provider ethnicity, and number of years of practice as a military mental health provider.

STUDY DESIGN AND METHODS

Participants

The target sample size for this study was 95 (see power analyses below for justification) active duty psychologists, psychiatrists and clinical social workers from the Army, Navy, Air Force, and U.S. Public Health Service (social workers only). The only inclusion criteria for the study was that participants must be at least 18 years old and an active duty psychologist, psychiatrist, or clinical social worker. Because this survey assessment used a sample of convenience, we did not target, match, or stratify participants based on any demographic variables including race/ethnicity, gender, age, branch of the military, or mental health specialty.

Recruitment

Military mental health organizations were contacted to obtain their approval for advertising the proposed study on their email list serves. Military psychologists were primarily recruited via the American Psychological Association (APA) Division 19 (Military Psychology) practice list serve. Military psychiatrists were primarily recruited via the American Psychiatric Military Members list serve. Military clinical social workers were primarily recruited via the Institute for the Advancement of Social Work Research list serve. A brief protocol describing the study and its importance was provided to these organizations (Appendix A). A brief email (Appendix B) was sent to members of these organizational list serves providing details of the study and inviting members to log-on to our secure Internet website and complete the assessment. To increase response rates, the same email was sent again via the list serves approximately two and four weeks after the initial email. In addition, the principal investigator also contacted the mental health departments at several military medical treatment facilities including the National Naval Medical Center (NNMC) in Bethesda, Maryland, Naval Medical Center San Diego (NMCSD) in San Diego, California, Walter Reed Army Medical Center (WRAMC) in Washington, DC, and Malcolm Grow Medical Center (MGMC) at Andrews Air Force Base, Maryland and obtained approval from their respective department heads to forward the study announcement (Appendix B) to the active duty mental health providers in their clinics.

There was no direct compensation given to volunteers for participating in the online study. However, upon completion of the online assessment volunteers were automatically given their cultural competence score, its relative meaning, and how it

compared to previous civilian mental health providers who had completed the cultural competence questionnaire (Appendix C). In addition, a link was provided to another website containing a list of references and resources to learn more about cultural competence and ways to improve their overall cultural competence (Appendix D). The list of resources also contained a link to a 9-credit cultural competence CME for psychiatrists and social workers.

Procedure

The study was an Internet-based survey study. A brief recruitment email (Appendix B) was sent to potential volunteers via various mental health organizational list serves or forwarded to various military treatment facility mental health clinics inviting them to participate in the study.

Interested participants accessed our secure Internet website (<https://cim01.usuhs.mil/culturalcompetency/index.tpx>) from any convenient computer with Internet access. After log-on, participants read an informed consent (Appendix E). Immediately following the informed consent was a consent button with the following statement: “If you have read and understand the above statements, please click on the ‘Next’ button below to indicate your consent to participate in this study. If you do not wish to continue with this study, please exit this website, and we thank you for your time.” After pressing the “Next” button, a page break was inserted. This page break resulted in an informed consent page separate from the rest of the study questionnaires. Therefore, by clicking on the "Next" button, participants clearly indicated their informed consent prior to viewing or completing any questions in the study.

Participants who consented then completed three self-report questionnaires: (1) California Brief Multicultural Competence Scale (CBMCS; Appendix F); (2) Color-Blind Racial Attitudes Scale (COBRAS; Appendix G) and (3) Marlowe-Crowne Social Desirability Scale-Short Form (MC-10; Appendix H). In addition, because of the contradictory findings of our prior study, we included seven questions about respondents' awareness of their biases and cultural competence limitations (Appendix I). Volunteers also were asked for some basic demographic (e.g., age, gender, ethnicity, time-in-service, branch of service, provider specialty, etc.) and background information (e.g., number of years of practice in the uniformed services, amount of prior cultural competence training, amount of experience providing health care to ethnic minorities, etc.) (See Appendix J).

All questionnaire items required respondents to either click on a specific response category or type a very brief response on the keyboard. Immediately after the informed consent and before participants viewed any questionnaires, they were given the following written instructions for completing the assessment: "It is important that in the following questionnaires that you answer openly, honestly, and accurately. However, please do not feel the need to spend a lot of time with each item. There are no right or wrong answers. As with most questionnaires, your initial response is usually sufficient." Approximately half way through the online assessment, the participants were given the following feedback: "Almost finished! You have now completed 1/2 the assessment." The questionnaire measures, including demographic information, took volunteers on average 17 minutes to complete.

Institutional Review Board approval for the study was obtained on December 11th, 2007 from the Uniformed Services University of the Health Sciences (USU) (Appendix K).

Measures

California Brief Multicultural Competence Scale (CBMCS)

The CBMCS was the main cultural competence measure used in the study. It was chosen from among the other cultural competence measures because it was designed specifically for mental health providers and because it was created using empirical methods. The 21-item CBMCS was empirically developed by Gamst and colleagues (2004) from a pool of items from four other well known counseling psychology cultural competence measures. The instrument uses a 4-point Likert scale reflecting the response categories of “strongly disagree” to “strongly agree.” The CBMCS consists of four factors related to cultural competence: Sensitivity to Consumers, Non-ethnic Ability, Awareness of Cultural Barriers, and Multicultural Knowledge. Scores range from 21 to 84, with higher scores indicating increasing levels of cultural competence.

Regarding psychometric properties of the CBMCS, Cronbach’s alpha for the overall measure was 0.89 and ranged from 0.75 to 0.90 for the four subscales (Gamst et al., 2004). The CBMCS subscales had low to moderate positive correlations (mean correlation = 0.31) with the Multicultural Counseling Inventory (MCI; Sadowsky et al., 1994) demonstrating criterion-related validity. Content validity of the items was established via consensus from an expert panel (Gamst et al., 2004). Exploratory and confirmatory factor analyses revealed a four-factor structure, providing support for the construct validity of the CBMCS.

Color-Blind Racial Attitudes Scale (COBRAS)

The CoBRAS (Neville et al., 2000) was designed to assess cognitive dimensions of color-blind racial attitudes (i.e., the extent to which respondents deny, distort, and/or minimize the existence of racism). The instrument consists of 20 items and uses a 6-point Likert scale reflecting the response categories of “strongly disagree” to “strongly agree.” Total scores range from 20 to 120 with higher scores corresponding to greater levels of racial blindness or lack of awareness. Example items include “Everyone who works hard, no matter what race they are, has an equal chance to become rich,” and “Racism may have been a problem in the past, but it is not an important problem today.”

The COBRAS includes blindness to three factors: Racial Privileges (i.e., blindness to the existence of White privileges; 7 items), Institutional Discrimination (i.e., limited awareness of the implications of institutional discrimination and exclusion; 7 items), and Blatant Racial Issues (i.e., unawareness of general and pervasive racial discrimination; 6 items).

Reliability of the COBRAS has been found to be adequate with coefficient alphas ranging from 0.82 (Neville et al., 2006) to 0.91 (Neville et al., 2000). The COBRAS also has demonstrated construct validity through its relationship to several social attitude indexes including increased internalized oppression, antiegalitarian beliefs, and victim-blame ideology among African Americans (Neville et al., 2005).

Marlowe-Crowne Social Desirability Scale – Short Form (MC-10)

Because of the face validity of self-report cultural competence questionnaires and because of research suggesting that providers tend to respond in a socially desirable manner on these measures, it was important that a measure of social desirability be

included in this study. The Marlowe-Crowne Social Desirability Scale (MCSDS; Crowne & Marlowe, 1960) is a 33-item self-report instrument that assesses a type of social desirability (i.e., need for approval or avoidance of disapproval). The MCSDS is one of the most used and accepted measures of social desirability in research. The population from which the items were drawn is defined as behaviors that are culturally sanctioned and approved, but which are unlikely to occur (Crowne & Marlowe, 1960). The 33 items describe either desirable but uncommon behaviors (e.g., admitting mistakes), or undesirable but common behaviors (e.g., gossiping). Individuals are asked to respond “True” or “False” to 18 items keyed in the true direction and 15 keyed in the false direction. Scores range from 0 to 33 ($M = 15.5$, $SD = 4.4$), with higher scores representing greater need for approval (Crowne & Marlowe, 1960; Paulhus, 1991). Evidence of construct validity for the MCSDS has been reported, and in previous investigations, internal consistency coefficients for the MCSDS have ranged from 0.73 to 0.88 (Paulhus, 1991).

Because of the busy schedules of active duty mental health providers, we decided that a short form of the MCSDS was prudent. For this reason, a 10-item version of the original MCSDS developed by Strahan and Gerbasi (1972) was used. This short version was found to be lower, but similar, in reliability to the original with internal reliability coefficients ranging from 0.61 to 0.70 vs. 0.73 to 0.83 for the original MCSDS. Scores on the short form range from 0 to 10. Mean scores in a sample of college students was 4.5, $SD = 2.1$.

DATA ANALYTIC STRATEGY

The primary data analytic strategy was a hierarchical multiple regression/correlation (MRC) (details about this analysis appear under the Hypotheses subsection below). Socially desirable responding was checked *a priori* and will be discussed in the next section. Post-hoc analyses will be discussed in their respective sections below. The significance level (alpha) used for all analyses was two-tailed and set at 0.05.

Social Desirability

A short version (10 items) of the original Marlowe-Crowne Social Desirability Scale (Marlowe-Crowne Social Desirability Scale-Short Form (MC-10; Reynolds, 1982) was used to check for socially desirable responding on the main cultural competence measure (CBMCS). A Pearson correlation was calculated between mean total scores on the CBMCS and mean total MC-10 scores. We expected the CBMCS to have a low correlation (i.e., $r < 0.15$) with the MC-10, demonstrating that participants did not respond in a socially desirable manner. However, regardless of this correlation, our original intent was to include the MC-10 in all MRC analyses.

Descriptive Data

Descriptive data (i.e., means, standard deviations, percentages) were computed and reported for all major demographic and background variables (i.e., gender, age, ethnicity, branch of service, years of practice, military rank, provider specialty, amount of cultural competency training, amount of experience with ethnic minorities).

Cultural Competence Levels

Means and standard deviations of cultural competence scores were computed for each of the major demographic variables including gender, ethnicity, branch of service, and provider specialty type. We computed and reported t-tests and one-way ANOVAs (with appropriate post-hoc tests) to determine if there were differences in cultural competence scores based on these important non-modifiable cultural competence predictor variables. A frequency distribution of cultural competence scores was created to assess for normality of cultural competence scores.

We also computed Pearson correlations among mean cultural competence scores and various important modifiable and non-modifiable predictors including amount of cross-cultural clinical experience, amount of cultural competence training, number of years of practice, age, and number of deployments. These results are presented in a correlation table.

Hypotheses

Amount of Cultural Competence Training

The first hypothesis is that military mental health providers who have had more cultural competency training will be more culturally competent than providers who have had less training, regardless of (accounting for) social desirability effects, provider gender, number of years of practice as a military provider, and provider ethnicity. Because the demographics section assesses amount of training on a continuum (i.e., “none” to “a lot”), hierarchical multiple regression/correlation analysis (MRC) was used to test this hypothesis. The primary predictor variable was Amount of Training and the criterion variable was mean total CBMCS scores. In the first step, Social Desirability,

Gender (dummy coded), Number of years of practice as a military mental health provider, and Ethnicity (dummy coded) were entered into the MRC model as important variables. In the second step, Amount of Training was entered into the model as the primary predictor variable. It was expected that when Amount of Training was entered into the hierarchical regression model, the R^2 change would be positive and significant ($p < 0.05$), indicating that amount of training is a significant independent predictor of cultural competence scores, above and beyond social desirability, gender, number of years of practice as a military mental health provider, and ethnicity.

Amount of Cross-Cultural Clinical Experience

The second hypothesis is that military mental health providers with more experience treating ethnic minorities will be more culturally competent than mental health providers with less experience treating ethnic minorities, regardless of (accounting for) social desirability effects, provider gender, number of years of practice as a military provider, and ethnicity. The demographics section assessed amount of cross-cultural clinical experience on a continuum (i.e., “none” to “a lot”). Therefore, similar to hypothesis one, hierarchical MRC analysis was used to test this hypothesis. The primary predictor variable was Amount of Cross-Cultural Clinical Experience and the criterion variable was mean total CBMCS scores. In the first step, Social Desirability, Gender (dummy coded), Number of years of practice as a military mental health provider, and Ethnicity (dummy coded) were entered into the MRC model as important variables. In the second step, Amount of Cross-Cultural Clinical Experience was entered into the model as the primary predictor variable. It was expected that when Amount of Cross-Cultural Clinical Experience was entered into the hierarchical regression model, the R^2

change would be positive and significant ($p < 0.05$), indicating that amount of experience treating ethnic minorities is a significant and independent predictor of their cultural competence scores, above and beyond social desirability, gender, number of years of practice as a mental health provider, and ethnicity.

Additional Exploratory Analyses

Self-Awareness of Biases and Cultural Competence Limitations

Providers' self-awareness of biases and cultural competence limitations was measured with seven ad hoc questions created for this study (see Appendix F) that we believe may help explain the contradictory results of our prior study of military physicians. Responses on these seven items used a 6-point Likert scale with anchors of "strongly agree" and "strongly disagree." A total score was calculated by summing responses on the items, which resulted in a range of scores from 7 to 42. Higher scores reflect greater self-awareness of biases and limitations. A Pearson correlation was calculated between the mean total score on the CBMCS and the mean total score of provider self-awareness. We expected that self-awareness would have a significant inverse relationship with cultural competence, indicating that as providers' self-awareness of their biases and cultural competence limitations increases, their self-reported cultural competence decreases.

The seven self-awareness items were pilot tested for clarity with a group of clinical psychology graduate students enrolled in a cultural diversity course at the Uniformed Services University. We made several minor wording changes based on feedback received by this group of students. However, the content and number of items

were retained. The students also provided feedback on the 24 demographic assessment items resulting in minor wording changes, which again increased the clarity of items.

Awareness of Racial Dynamics

The COBRAS was used because other studies have shown that the COBRAS is a large significant negative predictor of cultural competence. Similar to our two hypotheses, hierarchical MRC analysis was used to test this relationship. The primary predictor variable was mean total COBRAS score and the criterion variable was the mean total CBMCS score. The same variables used in testing our hypotheses were entered in the first step: Social Desirability, Gender (dummy coded), Number of years of practice as a military mental health provider, and Ethnicity (dummy coded). In the second step, Amount of Training (hypothesis #1) was entered into the model, and in the third step Amount of Experience (hypothesis #2) was entered. Mean total COBRAS scores was then entered in the fourth step of the model. It was expected that when the mean total COBRAS score was entered into the hierarchical regression model, the R^2 change would be significant ($p < 0.05$), indicating that providers' color-blind racial attitudes (i.e., mean total COBRAS score) is a significant and independent negative predictor of their self-reported cultural competence, above and beyond social desirability, gender, number of years of practice as a mental health provider, ethnicity, amount of formal cultural competence training, and amount of experience providing health care to ethnic minorities.

Power Analyses

Power analyses were calculated using nQuery Advisor, 4th edition (Elashoff, 2000). Power analyses were based on the effect sizes found in our prior study assessing

the cultural competence of military primary care physicians. Power analyses were not conducted for the additional analyses because of their exploratory nature. Therefore, the following power analyses are for our main hypotheses only.

For hypothesis one (Amount of Cultural Competence Training) and two (Amount of Cross-Cultural Clinical Experience), power analyses were conducted for multiple linear regression/correlation (MRC) analyses. Both hypothesis one and two used the same step one variables including Social Desirability, Gender, Number of years of practice as a military provider, and Ethnicity. For hypothesis one, the primary predictor variable was Amount of Training, and for hypothesis two the primary predictor variable was Amount of Cross-Cultural Clinical Experience. Therefore, for both hypotheses a total of $k = 5$ variables were entered into the MRC model. To add an increase in R^2 of 0.052 (i.e., the R^2 change for Amount of Experience obtained in our prior study) in a model that already includes 4 predictors (Social Desirability, Gender, Number of years of practice as a military provider, and Ethnicity) that already account for 9.1% of the variance in cultural competency scores, 83 participants are needed to detect this difference at $\alpha = 0.05$ and a power of 80%. Similarly, to add an increase in R^2 of 0.119 (i.e., the R^2 change for Amount of Training obtained in our prior study) in a model that already includes 4 predictors (Social Desirability, Gender, Number of years of practice as a military provider, and Ethnicity) that already account for 9.1% of the variance in cultural competency scores, 55 participants are needed to detect this difference at $\alpha = 0.05$ and a power of 80%. Therefore, when considering both hypotheses together, a total sample size of 83 participants is needed to detect significant differences.

Based on this power analysis, our target recruitment total was 95 respondents based on 15% over sampling (i.e., $83 + 12$) to account for potentially unusable data. Because we openly recruited from a convenience sample, we were not able to target a specific number of ethnic minority or female respondents. We expected that the final sample would approximate the demographics of this population. Specifically, current estimates indicate that ethnic minorities account for approximately 14% of all military health care providers (U.S. Navy Bureau of Medicine, 2006). We expected the number of male and female respondents to be relatively equal based on a recent study of military mental health providers (i.e., Kennedy et al., 2007).

The most recent data indicate that there were 1,159 mental health providers (psychologists, psychiatrists, and social workers) on active duty in fiscal year 2007 (Defense Management Data Center (DMDC), 2007). Given the response rate of 11% from our prior study of military physicians, the targeted sample size of 95 appeared feasible for the current study.

RESULTS

All statistical analyses were conducted using Statistical Package for the Social Sciences (SPSS), version 11.0.

Response Rate

Based on current estimates of active duty mental health providers in each discipline, approximately 1,159 mental health providers were contacted. The respondents in the study consisted of 116 mental health providers, which represents an 10.0 % response rate. This response rate closely matches our previous study (11%, Lippy, 2007) of active duty primary care physicians.

Two of the respondents were excluded from any analyses of cultural competence for the following reasons. One respondent was a 45-year old Hispanic female Army Psychologist with one year of uniformed clinical service and one year of civilian clinical service and reported only a Bachelor's-level degree. This respondent also had extreme scores on the cultural competence measure (CBMCS = 84/84, sample mean = 62.5), the Color-Blind Racial Attitudes Scale (COBRAS = 36 [only 6 respondents scored lower], sample mean = 59.1), and the Marlowe-Crowne Social Desirability Scale-Short Form (MC = 10/10, sample mean = 3.4). Because she reported only a Bachelor's degree and because of her positive impression management and her outlier scores, her data was excluded from all analyses. A second Bachelor-level respondent reported being a 48-year old Caucasian female with an "Other" degree. She reported no military or civilian clinical experience and did not report a branch of military service or a mental health specialty. In the comments section at the end of the assessment, she made reference to the apparent exclusion of organizational psychologists in the assessment, possibly

indicating that this was her specialty. Because she appeared to not have a clinical mental health background we also excluded her data. Therefore, exclusion of these two respondents resulted in 114 respondents that were included in all further analyses.

Participant Demographic Characteristics

Participant characteristics (e.g., age, gender, ethnicity, branch of service) are presented in Table 1. The mean age for participants was 41.3 years ($SD = 10.4$, range = 27 - 83 years). The sample as a whole consisted of a significantly greater proportion of men (59%) than women (40%), $\chi^2 (1, N = 113) = 4.25, p = .039$. This proportion closely matches the gender breakdown (men = 60%, women = 40%) of all active duty mental health providers (DMDC, 2007). The sample also consisted of a significantly higher proportion of Caucasian (80%) than ethnic minority participants (20%), $\chi^2 (1, N = 113) = 41.40, p < .001$. Ethnic minorities currently comprise approximately 14% of all active duty mental health providers (DMDC, 2007). Therefore, based on these population demographics, ethnic minorities appeared to be over represented in this sample (20%). The percentage of each of the ethnic minority groups was relatively consistent with general U.S. population statistics (U.S. Bureau of Census, 1996).

The majority of mental health providers in the study came from the two largest military branches (Army, Navy). It is likely that that reason for the larger number of Navy respondents was due to targeted recruitment at two major Navy Medical Treatment Facilities (i.e., National Naval Medical Center and Naval Medical Center, San Diego).

Table 1

Participant Demographics (N = 114)

Characteristics	Number (%)
Age, <i>M (SD)</i>	41.3 (10.4)
Years of Practice (Uniformed), <i>M (SD)</i>	9.0 (7.3)
Years of Practice (Non-Uniformed), <i>M (SD)</i>	4.9 (6.7)
Gender	
Male	69 (59%)
Female	44 (40%)
No response	1 (1%)
Race/Ethnicity	
White	91 (79%)
Minority	23 (21%)
Hispanic or Latino	5 (5%)
Black or African American	5 (4%)
Asian	8 (7%)
American Indian or Alaskan Native	2 (2%)
Native Hawaiian or Other Pacific Islander	1 (1%)
Two or more races	2 (2%)
Branch of Service	
Army	34 (29%)
Navy	48 (42%)
Marine Corps	1 (1%)
Air Force	13 (11%)
Coast Guard	0 (0%)
U.S. Public Health Service	19 (17%)
No response	1 (1%)

The birthplace of respondents and their mother and father were collected. For this assessment item, respondents were asked to type the state where they and their mother and father were born, or the country if born outside the United States. States were divided into the four major regions used by the U.S. Bureau of Census: *West* (Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington), *Midwest* (Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota), *Northeast* (Connecticut, Maine,

Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont), and *South* (Alabama, Arkansas, Washington, DC, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia).

Most respondents were born in the Northeast ($n = 31$) and South regions ($n = 30$), followed by the West ($n = 21$) and Midwest ($n = 20$) regions. The states with the largest percentage (10% for each) of respondents were New York ($n = 12$), Michigan ($n = 11$), and California ($n = 11$). Three respondents simply reported their place of birth as the “U.S.” or “United States.” Ten (10) respondents reported being born outside the U.S. in countries as diverse as India, Panama, and the Philippines.

Similar to respondents, most respondent’s fathers were born in the Northeast ($n = 31$) and South regions ($n = 30$), followed by the Midwest ($n = 20$) and West ($n = 12$) regions. The states with the largest number of respondents were New York ($n = 11$), Pennsylvania ($n = 9$), and North Carolina and Michigan ($n = 7$ each). Fathers born outside the U.S. were greater ($n = 19$) and more diverse than the birthplaces of their sons and daughters. Four fathers were born in the Philippines and two respondents reported having fathers born in Puerto Rico and another two reported having fathers born in Scotland.

Similar to respondents and their fathers, most respondent’s mothers were born in the Northeast ($n = 32$) and South regions ($n = 26$), followed by the Midwest ($n = 23$) and West ($n = 14$) regions. The states with the largest number of respondents were New York ($n = 15$), Michigan ($n = 9$), and Pennsylvania ($n = 8$). A large number of respondents

also had mothers born outside the U.S. ($n = 16$), representing countries such as China, Ecuador, Iran, and Korea.

Professional Background

The professional background of the respondents is presented in Table 2. There was a relatively equal representation of the three mental health specialties. Although not statistically significantly different ($\chi^2 (1, N = 111) = 4.09, p = .129$), descriptively, the largest percentage of respondents were psychiatrists (41%).

With respect to degree type, the largest percentage (35%) of respondents held the Doctor of Medicine (MD) degree. This finding is consistent with psychiatrists representing the largest percentage of respondents. The majority of psychologist respondents appeared to hold the PhD degree (26%) versus the PsyD degree (6%). Although technically allowed to hold Doctorate of Education (EdD) degrees, none of the military psychologists reported holding this degree. The majority of clinical social workers appeared to hold the MSW degree (22%) compared to the LCSW degree (10%), although a few social worker respondents reported holding the higher PhD degree.

Twenty-three percent (23%) of respondents reported holding a Bachelor's level degree, but all but three of these respondents reported this degree in addition to holding other higher-level graduate degrees. In all of these cases, respondents' highest degree was used for all analyses.

Table 2

<i>Participants' Professional Background</i> (N = 114)	
Characteristics	Number (%)
Provider Specialty	
Psychology	34 (30%)
Psychiatry	48 (41%)
Clinical Social Work	30 (26%)
No response	2 (3%)
Type of Degree	
Bachelor's level	25 (23%)
DO	7 (6%)
EdD	0 (0%)
LCSW	12 (10%)
MD	41 (35%)
MPH	3 (2%)
MSW	25 (22%)
PhD	30 (26%)
PsyD	7 (6%)
Other	9 (9%)

Deployment History

The deployment history of the study participants is presented in Table 3. The majority (74%) of respondents reported that they have deployed two or fewer times. However, there were a relatively large number of “seasoned” providers who had deployed three or more times.

As would be expected given current Department of Defense (DoD) military missions such as Operation Enduring Freedom (Afghanistan) and Operation Iraqi Freedom (Iraq), the majority of respondents reported having been deployed to the Middle East (36%). Respondents also reported being deployed to the other two major geographic areas of heavy U.S. Armed Forces presence: Western Europe (e.g., Germany, Italy, Spain, Kosovo; 28%) and Southeast Asia (e.g., South Korea, Japan; 25%).

The providers in this study also reported spending a relatively large amount of time interacting with the local population on their deployments, with approximately one-half (49%) of all respondents interacting an average of three months or longer with the local population. Interestingly, approximately one-third (30%) of the respondents reported spending, on average, one year or more interacting/immersed with the population of the geographic regions to which they were deployed. It is likely that these active duty respondents were stationed at overseas bases facilitating their significant interaction with local populations since this assessment item was worded to include “overseas assignments.”

Table 3

<i>Participant Deployment History</i> (N = 114)	
Characteristics	Number (%)
Number of Deployments	
None	41 (36%)
1	24 (21%)
2	20 (17%)
3	12 (10%)
4	9 (7%)
5	4 (4%)
6	3 (3%)
7	1 (1%)
8 or more	2 (2%)
Geographic regions deployed to	
Middle East	41 (36%)
Western Europe	32 (28%)
Eastern Europe	10 (9%)
Southeast Asia	30 (25%)
Indonesia	3 (3%)
Africa	5 (4%)
South America	7 (6%)
Latin America	8 (7%)
Australia	6 (5%)
None	43 (38%)

Participant Deployment History (cont)

Characteristics	Number (%)
Average amount time interacting with locals on deployment	
Less than 1 week	21 (18%)
1-2 weeks	5 (4%)
3-4 weeks	6 (5%)
5 weeks – 2 months	6 (5%)
3-4 months	3 (3%)
5-6 months	7 (6%)
7-12 months	11 (10%)
Greater than 1 year	36 (30%)

Cultural Competence Background Information

Cultural Competence and Social Desirability

A short version (10 items) of the original Marlowe-Crowne Social Desirability Scale (MCSDS; Crowne & Marlowe, 1960) was used to assess for potentially socially desirable responding on the CBMCS, the cultural competence measure. As predicted, the mean total scores on these two measures did not significantly correlate with one another, $r = .08, p = .39$, indicating that participants' self-reported cultural competence was not unduly distorted by their responding in a socially desirable manner. Although there was little relationship between cultural competence and social desirability, we included mean total social desirability scores as an important predictor in the main MRC analyses as originally planned.

Cultural Competence Training Experiences

The cultural competence training experiences of the study sample is presented in Table 4. Amount of prior cultural competence training was divided into cultural competence training that was required ("Required") by a respondent's training program or other professional requirements and training that a respondent chose ("Elective") to

participate in. The majority of respondents (59%) reported that they had less than two days total of required cultural competence training. Almost one-fifth (19%) of respondents reported the equivalent of a semester-long (e.g., 13 – 20 weeks) course in cultural competence. However, more than one of every ten respondents (12%) reported having no required cultural competence training. Similarly, the majority of respondents (75%) reported less than two days total of elective cultural competence training. Sixteen percent (16%) of respondents reported choosing to participate in the equivalent of a quarter-long (e.g., 3-12 weeks) course or longer of cultural competence training.

Didactic lectures and small group discussions were the two most frequently reported types of formal cultural competence training experiences by respondents (77% and 64%, respectively). Case-based learning was the next most frequently reported cultural competence training modality (44%). Approximately equal percentages of other types of formal training were reported (e.g., audio/visual, online, experiential learning, cultural immersion experiences). The least frequently reported training modality used was standardized/simulated patients (10%).

Table 4

Participants Cultural Competence Training Experiences

Characteristics	Required	Elective
	Number (%)	
Amount of prior cultural competency training		
None	14 (12%)	23 (20%)
1-3 hours	19 (17%)	13 (11%)
4-7 hours	14 (12%)	11 (10%)
8-10 hours	7 (6%)	11 (10%)
11-16 hours	15 (12%)	27 (23%)
2 days–1 week	5 (4%)	6 (5%)
1-2 weeks	3 (3%)	6 (5%)
3-12 weeks	5 (4%)	3 (3%)
13–20 weeks	22 (19%)	3 (3%)

Participants Cultural Competence Training Experiences (cont)

Characteristics	Required	Elective
	Number (%)	
Amount of prior cultural competency training		
21 or more weeks	11 (10%)	11 (10%)
No response	1 (1%)	2 (2%)
Types of formal cultural competency training experiences		
None	6 (5%)	
Small group discussion	75 (64%)	
Cultural immersion experience	30 (25%)	
Didactic (lecture)	89 (77%)	
Case-based learning	51 (44%)	
Audio/visual	23 (19%)	
Online/Internet	28 (24%)	
Experiential learning	26 (22%)	
Standardized/Simulated patients	11 (10%)	

Cultural Competence Clinical Experiences

Provider cross-cultural clinical experiences are presented in Table 5. The modal amount of experience providing health care to racial/ethnic minorities reported by respondents was “occasional” (i.e., ethnic minorities accounted for 26-50% of all the patients seen by a mental health provider). Interestingly, only one respondent reported having no experience providing health care to racial/ethnic minorities, and a large number reported “frequent” (ethnic minorities accounting for approximately 51-75% of all patients seen) and “extensive” (ethnic minorities accounting for approximately 76-100% of all patients seen) experience treating ethnic minorities (32% and 9%, respectively). These results indicate that, as a group, active duty mental health providers have experienced a significant amount of exposure to racial/ethnic minority patients. This result seems somewhat high given that ethnic minorities comprise only 36% of all

active duty personnel (Military Family Resource Center, 2003). Possible reasons for the relatively high amount of cross-cultural experience will be explained in the Discussion section below.

Table 5

Participants Cross-Cultural Clinical Experiences

Characteristics	Number (%)
Amount of experience providing health care to racial/ethnic minorities	
None	1 (1%)
Little (< 25% of all patients seen)	10 (9%)
Occasional (26-50% of all patients)	57 (50%)
Frequent (51-75% of all patients)	37 (32%)
Extensive (76-100% of all patients)	11 (9%)

Cultural Competence Social Experiences

Non-clinical, professional and social cultural competence experiences of this sample are presented in Table 6.

Professional Interaction with Ethnic Minorities

The largest percentage (43%) of respondents reported an “occasional” amount (i.e., ethnic minorities accounting for approximately 26-50% of all the professional interactions of a provider) of exposure to racial/ethnic minority colleagues and coworkers. Similar to providers’ experience providing health care to racial/ethnic minorities, none of the providers reported having no interactions with ethnic minority colleagues or coworkers. A large percentage of respondents indicated having “frequent”

(ethnic minorities accounting for approximately 51-75% of all professional interactions) and “extensive” (ethnic minorities accounting for approximately 76-100% of all professional interactions) experiences with ethnic minority colleagues and coworkers (26% and 9%, respectively).

Personal Interaction with Ethnic Minorities

Similarly, the largest percentage (37%) of respondents reported an “occasional” amount of exposure with racial/ethnic minority family, friends, and close acquaintances. Again, none of the respondents indicated that they have never had any exposure with ethnic minority family, friends, or close acquaintances.

Table 6

Participants Social Cultural Competence Experiences

Characteristics	Number (%)
Amount of exposure/immersion with racial/ethnic minority colleagues and coworkers	
None	0 (0%)
Little (< 25% of all professional interactions)	26 (23%)
Occasional (26-50% of all professional interactions)	49 (43%)
Frequent (51-75% of all professional interactions)	30 (26%)
Extensive (76-100% of all professional interactions)	11 (9%)
Amount of exposure/immersion with racial/ethnic minority family, friends, and close acquaintances	
None	0 (0%)
Little (< 25% of all personal interactions)	32 (28%)
Occasional (26-50% of all personal interactions)	42 (37%)
Frequent (51-75% of all personal interactions)	21 (18%)
Extensive (76-100% of all personal interactions)	21 (17%)

Participant Attitude and Interest in Cultural Competence

Participant attitudes about and interest in cultural competence were assessed and are presented in Table 7. An overwhelming majority (89%) of respondents reported

having at least “some” interest in additional cultural competence training. Only five respondents (4%) said they had no interest in more training. Of the various cultural competence training modalities, the mental health providers in this study sample reported that case-based learning (55%), small group discussion (54%), cultural immersion experiences (44%), and didactic lectures (42%) would be the most helpful to them. In response to the question “How important do you think cultural competence is to your practice as an active duty mental health provider?” most respondents (43%) reported that cultural competence was “Very important,” followed by “Extremely/vitally important” (29%), “Important” (20%), and “Somewhat important” (9%). None of the respondents believed that cultural competence was “Not at all important” to their practice.

Table 7

Participant Attitudes and Interest in Cultural Competence Training

Assessment Question	Number (%)
How interested are you in more training in cultural competence?	
None	5 (4%)
A little	9 (8%)
Some	41 (36%)
Quite a Bit	41 (36%)
A lot	20 (17%)
Which types of cultural competence training would you find most helpful? (you may check more than one)	
Small group discussion	62 (54%)
Cultural immersion experience	52 (44%)
Didactic (lecture)	48 (42%)
Case-based learning	63 (55%)
Audio/Visual	24 (21%)
Online/Internet (e.g., self-directed learning)	36 (31%)
Experiential learning (e.g., role play)	26 (23%)
Standardized/Simulated patients	26 (23%)
None	2 (2%)

How important do you think cultural competence is to your practice as an active duty mental health provider?

Not at all important	0 (0%)
Somewhat important	10 (9%)
Important	23 (20%)
Very important	49 (43%)
Extremely/vitally important	34 (29%)

Overall Cultural Competence Scores

Cultural competence was measured with the California Brief Multicultural Competence Scale (CBMCS; Gamst et al., 2004). The internal consistency reliability of the overall measure was high: Cronbach's coefficient alpha = .897, $p < .001$. CBMCS subscales alphas ranged from .416 to .857 (see Table 8). Scale development experts suggest that coefficient alpha should be greater than .70 for acceptability in the social sciences (Nunnally, 1978; Nunnally & Bernstein, 1994). The scale reliabilities in this study closely matched the reliabilities from the original validation study by Gamst et al. (2004), with the exception of the Sensitivity & Responsiveness to Consumers subscale. The coefficient alpha from the original study for this subscale was .75, but only .42 for our study. It is unclear why the internal consistency for this subscale was low in our particular sample.

Table 8

CBMCS Total and Subscale Mean Scores and Reliability

Variable	<i>M (SD)</i>	%ile	Cronbach's α
	Total Sample (N=114)		
CBMCS, Total Score	62.54 (7.74)	74 th	.897
CBMCS Subscales			
Multicultural Knowledge	12.61 (2.72)	70 th	.795
Awareness of Cultural Barriers	19.43 (2.27)	68 th	.725
Sensitivity & Responsiveness to Consumers	9.94 (1.06)	72 nd	.416
Socio-cultural Diversities	20.55 (3.49)	54 th	.860

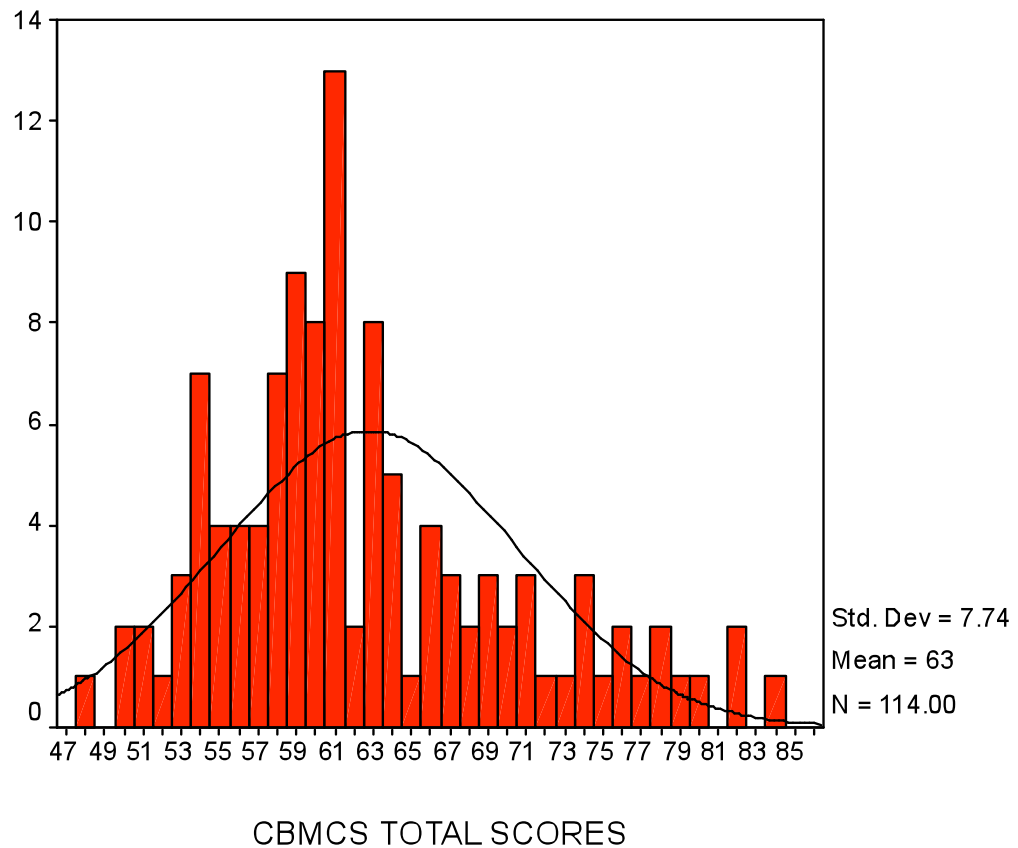
Notes. CBMCS = California Brief Multicultural Competence Survey. %ile norms based on sample of 1,244 mental health professionals (Gamst et al., 2004).

The mean cultural competence score for the entire sample was 62.5 ($SD = 7.7$); see Table 8. This mean score equaled the 74th percentile of the CBMCS normative sample. Respondents' mean subscale scores also were all above the 50th percentile of the normative sample. The normative sample from the original study (Gamst et al., 2004) consisted of a convenience sample of 1,244 California public mental health workers. The characteristics of the normative sample include the following: average age of 37.3 years ($SD = 16.8$); 64% female; 52% Caucasian, 14% Latino, 11% African American, 9% Asian, and 1% American Indian; average number of years working in the mental health field was 10.5 ($SD = 9.6$); and average number of years working with multicultural clients was 12.1 ($SD = 9.6$). These demographic characteristics are relatively similar to the characteristics of our sample, with the exception that our sample contained a smaller percentage of females (40% vs. 64%) and was less ethnically diverse (ethnic minorities =

20% vs. 35%). Because our sample is relatively representative of the normative sample, it is likely that, on average, the active duty mental health providers in our study sample were more culturally competent than their civilian mental health counterparts.

The minimum cultural competence score was 48 and the maximum score was 84 (range of possible scores = 21 to 84). The overall distribution of cultural competence scores was slightly positively skewed (see Figure 1).

Figure 1. Frequency distribution of cultural competence scores for total sample



Correlations Among Cultural Competence Variables

Bi-variate Pearson product moment correlations between total mean cultural competency scores (CBMCS) and various important variables are presented in Table 9. Providers' amount of cultural competence training, amount of cross-cultural clinical experience, and belief in the importance of cultural competence demonstrated significant positive correlations with mean total cultural competence scores ($r = .36, .21$, and $.34$, respectively; all ps significant). Consistent with the literature, color-blind racial attitudes (measured with the COBRAS) demonstrated a significant inverse correlation with cultural competence ($r = -.38, p < .001$), indicating that the more providers espoused color-blind racial attitudes, the less culturally competent they rated themselves. Color-blind racial attitudes also showed significant inverse relationships with several variables including: awareness of cultural competence limitations ($r = -.24, p = .01$), amount of cultural competence training ($r = -.24, p = .01$), providers' interest in cultural competence training ($r = -.36, p < .001$), and providers' attitude on the importance of cultural competence training ($r = -.40, p < .001$). Cultural competence training showed a significant association with providers' interest in ($r = .19, p = .04$), and attitudes concerning, the importance of cultural competence ($r = .23, p = .02$).

Table 9

Intercorrelations Among Cultural Competence Predictors

Variable	1	2	3	4	5	6	7	8	9	10
1. CC Total	---	-.38**	.08	-.07	.17	.36**	.21*	.07	.12	.34**
2. Color Blind attitudes		---	-.04	-.24**	-.04	-.24*	-.05	.09	-.36**	-.40**
3. Social desirability			---	-.29**	-.04	.05	.22*	.03	.08	.19*
4. Awareness of cultural competence limitations				---	.07	.02	-.09	-.01	.02	-.03
5. Years of uniformed service practice					---	-.01	.01	.55**	.04	-.06
6. Amount of cultural competence training						---	.12	.13	.19*	.23*
7. Amount of cross-cultural clinical experience							---	-.14	-.01	.25**
8. Number of overseas deployments/assignments								---	.05	-.12
9. Interest in cultural competence training									---	.58**
10. Importance of cultural competence										---

Notes. * $p < 0.05$ (2-tailed), ** $p < 0.01$ (2-tailed). CC Tot = Mean Cultural Competence Scores on CBMCS. **Bold** = statistically significant correlations

As might be expected, years of practice as a uniformed provider was highly correlated with number of overseas deployments/assignments ($r = .55, p < .001$), and providers' interest in cultural competence was highly correlated with their attitudes on the importance of cultural competence ($r = .58, p < .001$). Interestingly, the more cross-cultural clinical experience providers' had and the more important that they thought cultural competence was to their practice, the more they responded in a socially desirable manner ($r = .22, p = .02$).

Hypothesis One: *Amount of Cultural Competence Training*

The first hypothesis was that mental health providers who have had more cultural competence training would be more culturally competent (as measured by the California Brief Multicultural Competence Scale; CBMCS) than providers with less training, regardless of (accounting for) socially desirable responding, provider gender, provider ethnicity, and number of years of practice as a military mental health provider.

Multiple Regression/Correlation (MRC) modeling was employed to identify the predictive value of amount of cultural competence training on mean total cultural competence (CBMCS) scores. In the first step, social desirability, gender (dummy coded), number of years of practice as a military mental health provider, and ethnicity (dummy coded) were entered into the MRC model as important predictor variables. As predicted, the R^2 change was statistically significant when amount of training was entered into the hierarchical regression model, $R^2\Delta = .121, p < .001$ (see Table 10), indicating that amount of training was a significant independent predictor of cultural competence scores, above and beyond socially desirable responding, gender, number of years of practice as a military provider, and ethnicity. Amount of training accounted for 12.1% of

the total variance in cultural competence scores. The $R^2\Delta$ of .121 also represents a medium effect size according to Cohen's (1988) standards of small, medium, and large effect sizes (.010, .059, and .138, respectively).

Table 10

Summary of Hierarchical Regression Analysis for Amount of Training in Cultural Competence Predicting Provider Cultural Competence (N=114)

Variable	B	Std Error	β	<i>t</i>	<i>p</i>
Step 1					
Social Desirability	.22	.33	.06	0.66	.51
Years of practice	.17	.10	.16	1.76	.08
Gender	.70	1.55	.04	0.45	.65
Ethnicity	-2.07	1.79	-.11	-1.16	.25
Step 2					
Amt Training	.55	.14	.35	3.93	<.001

Model Summary:

Step 1. Covariates alone: $R^2 = .045$

Step 2. Covariates with Amt Training: $R^2 = .166$ ($R^2\Delta = .121, p < .001$)

Notes. The R^2 values correspond to the percentage of variance accounted for by the model including the variables listed.

$R^2\Delta$, *p* represents the p-value, or significance, of the change in R^2 accounted for by Step 2 compared to Step 1.

Yrs Practice = Number of years of practice as a uniformed provider.

Ethnicity = Minority, White (dichotomized)

Amt Training = Amount of prior cultural competence training.

Hypothesis Two: *Amount of Cross-Cultural Clinical Experience*

Hypothesis two addressed the relationship between the amount of cross-cultural clinical experience in treating ethnic minorities and provider cultural competence. We hypothesized that mental health providers with more experience treating ethnic minorities would be more culturally competent (as measured by the CBMCS) than providers with less experience working with ethnic minorities, regardless of (accounting for) socially desirable responding, provider gender, provider ethnicity, and number of years of practice as a military mental health provider.

Hierarchical MRC analysis was again used with mean total CBMCS scores as the main criterion variable, amount of cross-cultural clinical experience as the main predictor variable and the same important control variables entered in the first step (i.e., social desirability, gender, number of years of practice as a military mental health provider, and ethnicity). In the second step of the regression model, amount of cross-cultural clinical experience was entered as the primary predictor variable. As predicted, the R^2 change was statistically significant ($R^2\Delta = .035$, $p = .048$, see Table 11), indicating that amount of prior cross-cultural clinical experience was a significant and independent predictor of self-reported cultural competence, above and beyond socially desirable responding, gender, number of years of practice as a military provider, and provider ethnicity. Cross-cultural clinical experience accounted for 3.5 percent of the variance in cultural competence scores. The $R^2\Delta$ of .035 corresponds to a small effect size according to Cohen's (1988) standards of small, medium, and large effect sizes (.010, .059, and .138, respectively).

Table 11

Summary of Hierarchical Regression Analysis for Amount of Cross-Cultural Clinical Experience Predicting Provider Cultural Competence (N=114)

Variable	B	Std Error	β	<i>t</i>	<i>p</i>
Step 1					
Social Desirability	.15	.35	.04	0.43	.67
Years of Practice	.17	.10	.16	1.61	.11
Gender	.81	1.65	.05	0.49	.62
Ethnicity	-1.57	1.89	-.08	-0.83	.41
Step 2					
Amt Experience	1.96	.98	.19	2.00	.05

Model Summary:

Step 1. Covariates alone: $R^2 = .045$

Step 2. Covariates with Amt Experience: $R^2 = .079$ ($R^2 \Delta = .035, p = .048$)

Notes. The R^2 values correspond to the percentage of variance accounted for by the model including the variables listed.

$R^2 \Delta, p$ represents the p-value, or significance, of the change in R^2 accounted for by Step 2 compared to Step 1.

Yrs Practice = Number of years of practice as a uniformed provider.

Ethnicity = Minority, White (dichotomized)

Amt Experience = Amount of cross-cultural clinical experience.

Additional Exploratory Analyses

Self-Awareness of Biases and Cultural Competence Limitations

We used this study to explore providers' self-awareness of their biases and cultural competence limitations by creating seven questions we believed would assess

this aspect of cultural competence (see Appendix F). A total score was calculated by summing responses on seven Likert-scale items, which resulted in a possible range of scores from 7 to 42, with higher scores reflecting greater self-awareness of biases and limitations.

The overall scale reliability was only .554, indicating relatively poor internal consistency among the seven items. Reliability analysis showed that deleting any of the seven items would not have significantly affected the overall internal consistency of the scale. As shown in Table 9, the Pearson correlation between the mean total score on the CBMCS and the mean total score of provider self-awareness was low, $r = -.07$, $p = .46$. Although this relationship was in the direction (inverse) that we predicted, it was not significant, indicating that there was no relationship between self-reported cultural competence and this brief ad hoc scale.

Our original informal hypothesis was that the more cultural competence training and experience with ethnic minority patients a provider had, the more truly aware they would with regard to their actual level of cultural competence and their inherent biases. However, again, the Pearson correlations between these seven items and providers' amount of cultural competence training ($r = .02$, $p = .83$) and cross-cultural clinical experiences ($r = -.09$, $p = .33$) indicated that this was not the case (see Table 9).

Awareness of Racial Dynamics

We also took the opportunity in this study to measure color-blind racial attitudes (via the Color Blind Racial Attitudes Scale [COBRAS]) because other studies have shown that the COBRAS is a large significant negative predictor of cultural competence.

The overall COBRAS scale reliability was high (Cronbach's $\alpha = .862$; see Table 12). The COBRAS subscale reliabilities also were adequate and ranged from .721 to .775. These reliabilities were similar to those found in other studies (e.g., Neville et al., 2000, 2006). The mean total COBRAS score was 58.9 (see Table 12). This mean was similar to other studies that have used the COBRAS. In the original validation study by Neville and colleagues (2000) using college students and community members, total mean COBRAS scores ranged from 58.21 to 70.65. The mean total COBRAS score in a study by Neville et al. (2006) of 130 psychology students and mental health workers was 48.59 ($SD = 12.79$). The range of possible scores on the COBRAS is from 20 to 120; the range of scores in this study was from 27 to 93.

Table 12

COBRAS Total and Subscale Mean Scores and Reliability

Variable	<i>M (SD)</i>	Reliability (Cronbach's α)
	Total Sample	(<i>N</i> =114)
COBRAS, Total Score	58.94 (13.20)	.862
COBRAS Subscales		
Racial Privilege	22.22 (5.75)	.763
Institutional Discrimination	24.29 (6.34)	.775
Blatant Racial Issues	12.43 (4.17)	.721

Similar to our two main hypotheses, hierarchical MRC analysis was used to test the relationship between color-blind attitudes and self-reported cultural competence. The primary predictor variable was mean total COBRAS score and the criterion variable was the mean total CBMCS score. The same variables used in testing our hypotheses were

entered in the first step: Social Desirability, Gender (dummy coded), Number of years of practice as a military mental health provider, and Ethnicity (dummy coded). In the second step, mean total COBRAS scores were entered as the primary predictor variable.

As predicted, the R^2 change was statistically significant ($R^2\Delta = .146, p < .001$, see Table 13), indicating that provider color-blind attitudes was a significant and independent predictor of self-reported cultural competence, above and beyond socially desirable responding, gender, number of years of practice as a military provider, and ethnicity. The beta coefficient was negative ($\beta = -.394$) indicating that, as expected, color-blind attitudes demonstrated an inverse relationship with cultural competence. Color-blind racial attitudes accounted for 14.6 percent of the variance in cultural competence scores in this particular regression model. The $R^2\Delta$ of .146 corresponds to a large effect size according to Cohen's (1988) standards of small, medium, and large effect sizes (.010, .059, and .138, respectively).

Table 13

Summary of Hierarchical Regression Analysis for Color-Blind Racial Attitudes

Predicting Provider Cultural Competence (N=114)

Variable	B	Std Error	β	<i>t</i>	<i>p</i>
Step 1					
Social Desirability	.30	.32	.09	0.92	.361
Years of Practice	.15	.10	.14	1.55	.124
Gender	1.09	1.54	.07	0.71	.481
Ethnicity	-.41	1.80	-.02	-0.23	.822

Summary of Hierarchical Regression Analysis for Color-Blind Racial Attitudes

Predicting Provider Cultural Competence (cont)

Variable	B	Std Error	β	<i>t</i>	<i>p</i>
Step 2					
COBRAS	-.23	.05	-.39	-4.37	<.001

Model Summary:

Step 1. Covariates alone: $R^2 = .045$ ($R^2 \Delta = .045, p = .296$)

Step 2. Covariates + COBRAS: $R^2 = .190$ ($R^2 \Delta = .146, p < .001$)

Notes. The R^2 values correspond to the percentage of variance accounted for by the model including the variables listed.

$R^2 \Delta, p$ represents the p-value, or significance, of the change in R^2 accounted for by current step compared to the previous step.

Yrs Practice = Number of years of practice as a uniformed provider.

Ethnicity = Minority, White (dichotomized).

COBRAS = Color Blind Racial Attitudes Scale

To determine if color-blind racial attitudes still predicted cultural competence after controlling for the predictors from our two main hypotheses, we conducted a second MRC that included amount of prior cultural competence training and prior cross-cultural clinical experience as additional predictor variables. Similar to our other MRCs, the same control variables (social desirability, gender, number of years of practice as a military mental health provider, and ethnicity) were entered in the first step of the model. In the second step Amount of Training (hypothesis #1) was entered into the model, and in the third step Amount of Experience (hypothesis #2) was entered. Mean total COBRAS scores was then entered in the fourth step of the model.

As predicted, the $R^2\Delta$ change was statistically significant ($R^2\Delta = .096, p < .001$, see Table 14), indicating that provider color-blind attitudes remained a significant and independent negative predictor of self-reported cultural competence even after accounting for providers' prior cultural competence training and cross-cultural clinical experiences. The beta coefficient was negative ($\beta = -.330$), again indicating an inverse relationship between color-blind attitudes and cultural competence. Color-blind racial attitudes accounted for 9.6 percent of the variance in cultural competence scores in this particular regression model. Although including cultural competence training and experiences in this model reduced the overall effect of color-blind racial attitudes, the $R^2\Delta$ of .096 when color-blind attitude scores were included into the regression model still corresponded to a medium effect size according to Cohen's (1988) standards of small, medium, and large effect sizes (.010, .059, and .138, respectively).

Table 14

Summary of Hierarchical Regression Analysis for Color-Blind Racial Attitudes

Predicting Provider Cultural Competence (N=114)

Variable	B	Std Error	β	<i>t</i>	<i>p</i>
Step 1					
Social Desirability	.21	.31	.06	0.70	.489
Years of Practice	.14	.09	.13	1.52	.132
Gender	1.75	1.48	.11	1.18	.239
Ethnicity	-.45	1.71	-.02	-0.26	.794
Step 2					
Amt Training	.41	.14	.26	2.98	.004

Summary of Hierarchical Regression Analysis for Color-Blind Racial Attitudes

Predicting Provider Cultural Competence (N=114)

Variable	B	Std Error	β	<i>t</i>	<i>p</i>
Step 3					
Amt Experience	1.79	.87	.17	2.05	.043
Step 4					
COBRAS	-.19	.05	-.33	-3.74	<.001

Model Summary:

Step 1. Covariates alone:	$R^2 = .045$	$(R^2 \Delta = .045, p = .296)$
Step 2. Step 1 + Amt Trng:	$R^2 = .166$	$(R^2 \Delta = .121, p < .001)$
Step 3. Step 2 + Amt Exper:	$R^2 = .191$	$(R^2 \Delta = .026, p = .071)$
Step 4. Step 3 + COBRAS:	$R^2 = .287$	$(R^2 \Delta = .096, p < .001)$

Notes. The R^2 values correspond to the percentage of variance accounted for by the model including the variables listed.

$R^2 \Delta$, *p* represents the p-value, or significance, of the change in R^2 accounted for by current step compared to the previous step.

Yrs Practice = Number of years of practice as a uniformed provider.

Ethnicity = Minority, White (dichotomized).

Amt Training = Amount of provider prior cultural competence training.

Amt Experience = Amount of provider prior cross-cultural clinical experience.

COBRAS = Color Blind Racial Attitudes Scale

Relationship between Cultural Competence and Non-modifiable Predictors

Mean total cultural competence scores on the CBMCS were compared between the important non-modifiable predictors in this study. A summary of mean total cultural competence scores for the following predictors is presented in Table 15.

Table 15

Cultural Competence Differences by Various Predictors

Predictor	<i>n</i>	CBMCS <i>M (SD)</i>	<i>F</i> -value (Omnibus)	<i>p</i> -value.
Gender			<i>t</i> = 0.063	.950
Male	69	62.6 (7.4)		
Female	44	62.5 (8.4)		
Race/Ethnicity			1.763	.159
White	91	62.2 (6.9)		
Hispanic/Latino	5	63.0 (8.9)		
Black/African American	5	67.8 (14.0)		
Asian	8	58.4 (3.8)		
American Indian/Alaskan Native	2	56.0 (2.8)		
Native Hawaiian/Pacific Islander	1	79.0 (0.0)		
Two or more races	2	80.0 (2.8)		
All minorities	23	64.0 (10.5)	<i>t</i> = -0.797	.432
White	91	62.2 (6.9)		
Branch of Service			0.402	.752
Army	33	61.6 (7.4)		
Navy	48	63.2 (7.7)		
Air Force	13	61.7 (6.7)		
U.S. Public Health Service	19	63.4 (9.3)		
Provider Degree Type			2.960	.010
MD	40	60.6 (7.4)		.953 ^a
DO	7	63.6 (8.1)		
PhD	30	64.9 (6.2)		.962 ^b
PsyD	7	67.9 (9.6)		
LCSW	12	65.6 (9.4)		.262 ^c
MSW	15	59.1 (6.6)		
MD/DO	47	61.0 (7.5)	3.790	.026
PhD/PsyD	37	65.5 (6.9)		
LCSW/MSW	27	61.9 (8.5)		
Provider Specialty			2.771	.067
Social Worker	30	62.3 (8.3)		
Psychiatrist	48	61.0 (7.4)		
Psychologist	34	65.0 (7.2)		

Notes. CBMCS = California Brief Multicultural Competence Scale; Mean Total Score + Standard Deviation. **a** = Tukey's post-hoc comparison MD vs. DO, **b** = Tukey's post-hoc comparison PhD vs. PsyD, **c** = Tukey's post-hoc comparison LCSW vs. MSW. **Bold** = significantly different scores evidenced by Tukey's post-hoc analysis.

Gender

Cultural competence scores were not statistically significantly different between male and female providers, $t(112) = 0.063, p = .950$.

Race/Ethnicity

A oneway ANOVA was used to test for overall differences in mean total cultural competence scores among racial/ethnic respondents. Native Hawaiian/Other Pacific Islanders ($n = 1$), American Indian/Alaskan Natives ($n = 2$), and respondents of Two or more races ($n = 2$) were excluded from the analysis because of their small cell size. The overall ANOVA with the other four remaining racial/ethnic groups (Caucasian, Hispanic/Latino, Black/African American, and Asian) revealed that there were no significant differences in cultural competence between these racial/ethnic groups, $F(3, 105) = 1.763, p = .159$.

Because of the relatively small number of minorities in each racial/ethnic category we conducted a follow-up analysis with all minorities combined into a single group and compared to Caucasians. This dichotomous comparison also revealed that cultural competence scores were not significantly different between Caucasians and ethnic minorities, $t(112) = -0.797, p = .432$. Therefore, both of these analyses confirmed that there were no significant differences in self-reported cultural competence among racial/ethnic groups.

Branch of Service

There were no statistically significant differences in cultural competence among providers from the four main military branches, $F(3, 109) = 0.402, p = .75$.

Provider Degree

We also compared mean total cultural competence scores based on type of provider degree. We did not include Bachelor degrees because it was not considered a primary degree. We also excluded from these analyses the three respondents who reported only an “Other” degree. A oneway ANOVA with Tukey’s post-hoc comparisons among the remaining six degree types revealed that there were no differences between MD ($M = 60.55$, $SD = 7.42$) and DO ($M = 63.57$, $SD = 8.06$) degree types ($p = .953$), between PhD ($M = 64.90$, $SD = 6.17$) and PsyD ($M = 67.86$, $SD = 9.58$) degree types ($p = .962$), or between LCSW ($M = 65.58$, $SD = 9.39$) and MSW ($M = 59.07$, $SD = 6.62$) degree types ($p = .262$). Therefore, we combined similar degree types into three main primary degree types (LCSWs/MSWs, MDs/DOs, and PhDs/PsyDs) and conducted follow-up analyses. The overall omnibus ANOVA revealed significant differences between the three combined degree types, $F(2, 108) = 3.790$, $p < .05$. In post-hoc analyses, PhD and PsyD providers ($M = 65.46$, $SD = 6.88$) were more culturally competent than MD and DO providers ($M = 61.00$, $SD = 7.50$), $p < .05$.

Provider Specialty

A oneway ANOVA showed a trend for cultural competence differences between the three mental health provider specialties, $F(2, 109) = 2.771$, $p = .067$. Tukey’s post-hoc analyses revealed that psychologists ($M = 65.0$, $SD = 7.1$) reported higher levels of cultural competence than their psychiatry counterparts ($M = 61.4$, $SD = 7.4$), $p = .054$. This result equaled an effect size (Cohen’s d) of 0.547, or a medium effect size according to Cohen’s (1988) standards of small, medium, and large effect sizes ($d = 0.2$, 0.5 , and 0.8 , respectively). Because most PhD and PsyD providers in this survey study were

psychologists and all MD and DO providers were psychiatrists, there appears to be good evidence that psychologists report higher levels of cultural competence than psychiatrists.

To explore the nature of these specialty differences, a more detailed analysis of CBMCS (cultural competence) scores was conducted. Follow-up tests revealed statistically significant differences between provider specialties on two of the four CBMCS subscales: Multicultural Knowledge and Awareness of Cultural Barriers (see Table 16). In particular, psychologists had higher Knowledge subscale scores ($M = 13.88$, $SD = 2.48$) than psychiatrists ($M = 12.21$, $SD = 2.46$), $p < .05$, and social workers ($M = 11.80$, $SD = 2.99$), $p < .01$. Similarly, psychologists ($M = 20.00$, $SD = 2.10$) reported significantly higher scores on the Awareness subscale than psychiatrists ($M = 18.77$, $SD = 2.26$), $p < .05$. There were no differences between social workers, psychiatrists, and psychologists on the other two cultural competence subscales: Sensitivity and Responsiveness to Consumers and Socio-cultural Diversities.

Table 16

Cultural Competence Differences by Provider Specialty

Variable	S/W ($n = 30$)	Psychiatrists ($n = 48$)	Psychologists ($n = 34$)	F -value	p
	$M (SD)$				
CBMCS, Total Score	62.30 (8.33)	61.04 (7.43)	65.03 (7.15)	2.77	.067
CBMCS subscales					
Knowledge	11.80 (2.99)	12.21 (2.46)	13.88 (2.48)	6.02	.003
Awareness	19.83 (2.25)	18.77 (2.26)	20.00 (2.10)	3.76	.026
Sensitivity to Consumers	10.00 (1.23)	9.85 (0.95)	10.03 (1.09)	0.32	.728
Socio-cultural Diversities	20.67 (3.94)	20.21 (3.36)	21.12 (3.18)	0.69	.505

Notes. CBMCS = California Brief Multicultural Competence Scale. S/W = Clinical Social Workers.

Individual cultural competence (CBMCS) item analysis was conducted to investigate more detailed cultural competence differences among the three provider specialties. Results of this individual item analysis are presented in Table 17. Six of the 21 CBMCS items showed statistically significant differences between specialties: items 7, 17, and 19 (Knowledge subscale) and items 10, 11, and 16 (Awareness items).

Similar to total and subscale CBMCS differences, psychologists scored significantly higher than psychiatrists ($M = 2.85$, $SD = 0.66$ vs. $M = 2.21$, $SD = 0.80$; $p < .05$) and social workers ($M = 2.85$, $SD = 0.66$ vs. $M = 2.13$, $SD = 0.90$; $p < .05$) on knowledge item # 7 (“I have an excellent ability to identify the strengths and weaknesses of psychological tests in terms of their use with persons from different cultural, racial and/or ethnic backgrounds”). This difference seems reasonable and expected given that specialized training in psychological testing is unique to the training of psychologists. Psychologists also scored higher than social workers ($M = 2.97$, $SD = 0.63$ vs. $M = 2.57$, $SD = 0.68$; $p < .05$) on knowledge item # 17 (“I can discuss research regarding mental health issues and culturally different populations”). Again, this difference makes sense given that, in general, psychologists receive more training in conducting and referring to research than social workers. Post-hoc analyses also revealed that psychologists again scored higher than their psychiatry ($M = 2.88$, $SD = 0.64$ vs. $M = 2.44$, $SD = 0.65$; $p < .01$) and social worker ($M = 2.88$, $SD = 0.64$ vs. $M = 2.50$, $SD = 0.68$; $p < .05$) colleagues on knowledge item # 19 (“I am knowledgeable of acculturation models for various ethnic minority groups.”). Again, this difference is likely due to differences in content and depth of training.

Because these three knowledge items are unique to the training of psychologists, we removed them and conducted the analysis again to determine if these specialty differences in cultural competence still existed. A follow-up one-way ANOVA revealed that after removing these three items, there were no longer specialty differences in total cultural competence scores ($F = 1.618, p = .203$).

With regard to Awareness subscale items, psychologists showed a trend towards higher scores than psychiatrists ($M = 3.35, SD = 0.54$ vs. $M = 3.04, SD = 0.68; p = .063$) on item # 10 (“I am aware that being born a White person in this society carries with it certain advantages.”). Social workers also showed a similar trend towards higher scores than psychiatrists ($M = 3.33, SD = 0.55$ vs. $M = 3.04, SD = 0.68; p = .063$) on this item. On item # 11 (“I am aware of how my cultural background and experiences have influenced my attitudes about psychological processes.”), social workers scored significantly higher than psychiatrists ($M = 3.53, SD = 0.57$ vs. $M = 3.21, SD = 0.46; p < .05$). Finally, psychologists and social workers both scored significantly higher than psychiatrists ($M = 3.29, SD = 0.46$ and $M = 3.27, SD = 0.45$ vs. $M = 3.06, SD = 0.38; ps < .05$, respectively) on item # 16 (“I can identify my reactions that are based on stereotypical beliefs about different ethnic groups.”).

Table 17

Provider Specialty Differences on Individual Cultural Competence Measure items

CBMCS Item	S/W (<i>n</i> = 30)	Psychi. (<i>n</i> = 48)	Psycho. (<i>n</i> = 34)	<i>p</i>
	<i>M (SD)</i>			
1. I am aware that being born a minority in this society brings with it certain challenges that White people do not have to face.	3.37 (0.62)	3.23 (0.66)	3.47 (0.51)	.20
2. I am aware of how my own values might affect my client.	3.43 (0.68)	3.48 (0.51)	3.41 (0.50)	.85
3. I have an excellent ability to assess, accurately, the mental health needs of persons with disabilities.	2.77 (0.77)	2.75 (0.60)	2.79 (0.73)	.96
4. I am aware of institutional barriers that affect the client.	3.30 (0.54)	3.13 (0.44)	3.24 (0.55)	.31
5. I have an excellent ability to assess, accurately, the mental health needs of lesbians.	2.83 (0.75)	2.63 (0.76)	2.74 (0.71)	.47
6. I have an excellent ability to assess, accurately, the mental health needs of older adults.	2.77 (0.77)	3.08 (0.45)	3.03 (0.63)	.07
7. I have an excellent ability to identify the strengths and weaknesses of psychological tests in terms of their use with person from different cultural, racial and/or ethnic backgrounds.	2.13 (0.90)	2.21 (0.80)	2.85 (0.66)	.00
8. I am aware that mental health providers frequently impose their own cultural values upon minority clients.	3.07 (0.74)	3.21 (0.65)	3.35 (0.60)	.23
9. My communication skills are appropriate for my clients.	3.27 (0.52)	3.25 (0.48)	3.38 (0.49)	.47
10. I am aware that being born a White person in this society carries with it certain advantages.	3.33 (0.55)	3.04 (0.68)	3.35 (0.54)	.04

CBMCS Item	S/W	Psychi.	Psycho.	<i>p</i>
11. I am aware of how my cultural background and experiences have influenced my attitudes about psychological processes.	3.53 (0.57)	3.21 (0.46)	3.29 (0.52)	.03
12. I have an excellent ability to critique multicultural research.	2.37 (0.85)	2.35 (0.70)	2.56 (0.71)	.43
13. I have an excellent ability to assess, accurately, the mental health needs of men.	3.03 (0.81)	3.21 (0.50)	3.38 (0.55)	.08
14. I am aware of institutional barriers that may inhibit minorities from using mental health services.	3.27 (0.58)	3.02 (0.60)	3.24 (0.61)	.14
15. I can discuss, within a group, the differences among ethnic groups (e.g., low socioeconomic status (SES) Puerto Rican client vs. high SES Puerto Rican client).	2.23 (0.73)	2.50 (0.65)	2.62 (0.74)	.09
16. I can identify my reactions that are based on stereotypical beliefs about different ethnic groups.	3.27 (0.45)	3.06 (0.38)	3.29 (0.46)	.03
17. I can discuss research regarding mental health issues and culturally different populations.	2.57 (0.68)	2.71 (0.65)	2.97 (0.63)	.04
18. I have an excellent ability to assess, accurately, the mental health needs of gay men.	2.77 (0.86)	2.56 (0.77)	2.74 (0.75)	.46
19. I am knowledgeable of acculturation models for various ethnic minority groups.	2.50 (0.68)	2.44 (0.65)	2.88 (0.64)	.01
20. I have an excellent ability to assess, accurately, the mental health needs of women.	3.43 (0.57)	3.17 (0.60)	3.29 (0.63)	.16
21. I have an excellent ability to assess, accurately, the mental health needs of persons who come from very poor socioeconomic backgrounds.	3.07 (0.79)	2.81 (0.64)	3.15 (0.56)	.06

Follow-up Regression Analyses with Provider Specialty Included

Given that we found differences in cultural competence based on providers' specialty, we recomputed the MRC analyses from our main hypotheses and included specialty as an additional control variable. The original control variables were included in step one (social desirability, gender, ethnicity, and years of practice), followed by the addition of provider specialty in step two, and finally amount of cultural competence training (hypothesis #1) and amount of cross-cultural clinical experience (hypothesis #2) in the third step, respectively. The results of the new MRC analyses are presented below in Tables 18 and 19.

With regard to amount of prior cultural competence training (see Table 18), the addition of provider specialty as an important predictor had the effect of increasing the total amount of variance accounted for in cultural competence by 0.5% (original $R^2 = .166$, new $R^2 = .171$). Results from this new MRC analysis revealed that prior cultural competence training remained a large and significant predictor of self-reported cultural competence even after additionally controlling for provider specialty ($R^2 \Delta = .125$, $p < .001$; original $R^2 \Delta = .121$, $p < .001$). However, provider specialty did not account for significant unique variance in cultural competence in this specific regression model ($R^2 \Delta = .005$, $p = .448$).

With regard to amount of prior cross-cultural clinical experience (see Table 19), the addition of provider specialty as an important predictor had the effect of actually *decreasing* the total amount of variance accounted for in cultural competence by 0.6% (original $R^2 = .079$, new $R^2 = .073$). Results revealed that prior cross-cultural clinical experience no longer remained a significant predictor of self-reported cultural

competence after additionally controlling for provider specialty ($R^2 \Delta = .027, p = .086$; original $R^2 \Delta = .035, p = .048$), although it did show a trend towards being a significant independent predictor of cultural competence. Again, provider specialty did not account for significant unique variance in cultural competence in this specific regression model ($R^2 \Delta = .005, p = .448$).

Table 18

Summary of New Hierarchical Regression Analysis for Amount of Training in Cultural Competence Predicting Provider Cultural Competence (N=114)

Variable	B	Std Error	β	<i>t</i>	<i>p</i>
Step 1					
Social Desirability	.23	.33	.07	0.69	.489
Years of practice	.17	.10	.16	1.73	.087
Gender	.19	1.62	.01	0.12	.905
Ethnicity	-2.41	1.83	-.13	-1.32	.192
Step 2					
Specialty	-1.18	1.02	-.13	-1.17	.246
Step 3					
Amt Training	.63	.16	.40	3.94	<.001

Model Summary:

Step 1. Covariates alone:	$R^2 = .040$ ($R^2 \Delta = .040, p = .359$)
Step 2. Step 1 + Specialty:	$R^2 = .046$ ($R^2 \Delta = .005, p = .448$)
Step 3. Step 2 + Amt of Training:	$R^2 = .171$ ($R^2 \Delta = .125, p < .001$)

Notes. The R^2 values correspond to the percentage of variance accounted for by the model including the variables listed.

$R^2 \Delta, p$ represents the p-value, or significance, of the change in R^2 accounted for by the current step compared to the previous step.

Yrs Practice = Number of years of practice as a uniformed provider.

Ethnicity = Minority, White (dichotomized).

Specialty = Provider Specialty (i.e., Psychologists, Psychiatrists, Social Workers).

Amt Training = Amount of prior cultural competence training.

Table 19

Summary of New Hierarchical Regression Analysis for Amount of Cross-Cultural Clinical Experience Predicting Provider Cultural Competence (N=114)

Variable	B	Std Error	β	<i>t</i>	<i>p</i>
Step 1					
Social Desirability	.16	.35	.05	0.45	.658
Years of Practice	.15	.10	.14	1.46	.146
Gender	.86	1.72	.05	0.50	.617
Ethnicity	-1.45	1.93	-.08	-0.75	.453
Step 2					
Specialty	.32	.97	.04	0.33	.739
Step 3					
Amt Experience	1.77	1.02	.18	1.74	.086

Model Summary:

Step 1. Covariates alone:	$R^2 = .040$ ($R^2 \Delta = .040, p = .359$)
Step 2. Step 1 + Specialty:	$R^2 = .046$ ($R^2 \Delta = .005, p = .448$)
Step 3. Step 2 + Amt of Experience:	$R^2 = .073$ ($R^2 \Delta = .027, p = .086$)

Notes. The R^2 values correspond to the percentage of variance accounted for by the model including the variables listed.

$R^2 \Delta, p$ represents the p-value, or significance, of the change in R^2 accounted for by Step 2 compared to Step 1.

Yrs Practice = Number of years of practice as a uniformed provider.

Ethnicity = Minority, White (dichotomized).

Specialty = Provider Specialty (i.e., Psychologists, Psychiatrists, Social Workers).

Amt Experience = Amount of cross-cultural clinical experience.

Provider Specialty Differences

Because of the provider specialty differences in cultural competence found above, it was important to determine if there were differences among the specialties on other important variables that could have contributed to cultural competence differences. A comparison of provider specialties on these other variables is presented in Table 20.

Although there were no differences among the specialties in number of years of clinical practice ($p = .519$), there was a trend toward social workers being slightly older than psychiatrists ($M = 43.4$, $SD = 9.8$ vs. $M = 38.7$, $SD = 9.5$, Tukey's post-hoc $p = .087$). There was a significantly higher percentage of male psychiatrists (75%) than male social workers (41%), $\chi^2 (2, N=112) = 12.78$, $p < .05$. With regard to race/ethnicity, there were significantly more ethnic minority social workers (43%) than minority psychiatrists (17%), and minority psychologists (6%), $\chi^2 (2, N=112) = 7.91$, $p < .05$.

An overall omnibus ANOVA revealed significant differences among the specialties in amount of total prior cultural competence training ($F = 39.259$, $p < .001$). Tukey's post-hoc analyses showed that psychologists ($M = 11.2$, $SD = 4.5$) had significantly more training than social workers ($M = 8.7$, $SD = 4.3$) and psychiatrists ($M = 3.9$, $SD = 2.9$), $p < .05$ and $p < .001$, respectively. Social workers reported more training than psychiatrists, $p < .001$. In addition, prior cultural competence training was divided into required and elective training. With regard to required training, psychologists ($M = 6.8$, $SD = 2.7$) again reported more training than social workers ($M = 4.6$, $SD = 3.1$) and psychiatrists ($M = 2.1$, $SD = 1.7$), post-hoc $ps < .05$ and $.001$, respectively. Social workers also reported more required training than psychiatrists, $p < .001$. Similar differences were found with regard to elective/optional cultural competence training with psychologists again reporting more training than psychiatrists ($M = 4.5$, $SD = 2.8$, vs. $M = 1.9$, $SD = 2.4$, $p < .001$). Social workers also reported more training than psychiatrists ($M = 4.3$, $SD = 2.3$, vs. $M = 1.9$, $SD = 2.4$, $p < .001$).

Active duty social workers ($M = 2.9$, $SD = 0.8$) reported significantly more experience working with ethnic minority patients than psychiatrists ($M = 2.3$, $SD = 0.7$, p

< .05) and psychologists ($M = 2.3$, $SD = 0.7$, $p < .05$), but there was no difference in experience between psychiatrists and psychologists, $p = .996$.

Providers' interest in cultural competence training was measured on a 5-point Likert scale from "none" (= 0) to "A lot" (= 4). Social workers reported statistically significantly more interest in training than psychiatrists ($M = 2.9$, $SD = 0.9$ vs. $M = 2.3$, $SD = 1.2$, $p < .05$). Similarly, providers' attitude on the importance of cultural competence to practice as an active duty mental health provider also was measured on a 5-point Likert scale from "Not at all important" (= 0) to "Extremely/vitally important" (= 4). Again, social workers reported significantly more importance in cultural competence than psychiatrists ($M = 3.4$, $SD = 0.8$ vs. $M = 2.7$, $SD = 1.0$, $p < .05$).

There were no differences among the three specialties in their awareness of their biases and cultural competence limitations ($p = .333$) or in their levels of socially desirable responding ($p = .202$). However, there was a trend toward psychiatrists reporting more color-blind racial attitudes (measured on the COBRAS) than psychologists ($M = 62.0$, $SD = 14.1$ vs. $M = 55.8$, $SD = 11.6$, $p = .098$).

Table 20

Provider Specialty Differences

Variable	S/W ($n = 30$)	Psychi. ($n = 48$)	Psycho. ($n = 34$)	F -value (Omnibus)	p
Age, M (SD)	43.5 (9.8)	38.4 (9.5)	42.9 (11.5)	2.990	.054
Years of Practice, M (SD)	10.1 (8.6)	9.7 (7.1)	8.2 (6.2)	0.660	.519
Gender, No. (%)					
Male	12 (41%)	36 (75%)	21 (62%)	$\chi^2 = 12.783$.002
Female	17 (59%)	12 (25%)	13 (38%)	$\chi^2 = 1.00$.607

Provider Specialty Differences (cont)

Variable	S/W	Psychi.	Psycho.	<i>F</i> -value	<i>p</i>
Race/Ethnicity, No. (%)					
Caucasian	17 (57%)	40 (83%)	32 (94%)	$\chi^2 = 9.191$.010
Latino	3 (10%)	1 (2%)	1 (3%)	$\chi^2 = 1.600$.449
African American	5 (17%)	0 (0%)	0 (0%)		
Asian	3 (10%)	4 (8%)	1 (3%)	$\chi^2 = 1.750$.417
Native American	1 (3%)	1 (2%)	0 (0%)		
Native HI/Pac. Is.	0 (0%)	1 (2%)	0 (0%)		
Two or more races	1 (3%)	1 (2%)	0 (0%)		
All ethnic minorities	13 (43%)	8 (17%)	2 (6%)	$\chi^2 = 7.913$.019
Amount of training, <i>M</i> (<i>SD</i>)					
Required	4.6 (3.1)	2.1 (1.7)	6.8 (2.7)	37.015	<.001
Elective	4.3 (2.3)	1.9 (2.4)	4.5 (2.8)	13.160	<.001
Total	8.7 (4.3)	3.9 (2.9)	11.2 (4.5)	39.259	<.001
Amt of experience, <i>M</i> (<i>SD</i>)	2.9 (0.8)	2.3 (0.7)	2.3 (0.7)	8.232	<.001
Cultural competence, <i>M</i> (<i>SD</i>)					
Interest	2.9 (0.9)	2.3 (1.2)	2.6 (0.7)	3.442	.036
Importance	3.4 (0.8)	2.7 (1.0)	2.9 (0.7)	6.242	.003
Social desirability, <i>M</i> (<i>SD</i>)	4.0 (2.3)	3.1 (2.3)	3.1 (2.1)	1.622	.202
Aware. of biases/lims, <i>M</i> (<i>SD</i>)	26.2 (4.1)	27.3 (3.4)	27.6 (4.4)	1.110	.333
Color-Blind attitudes, <i>M</i> (<i>SD</i>)	57.6 (13.5)	62.0 (14.1)	55.8 (11.6)	2.387	.097

Notes. S/W = Clinical Social Worker, Psychi = Psychiatrists, Psycho. = Psychologists. Aware. of biases/lims = Provider awareness of their biases and cultural competence limitations (7-item ad hoc assessment). Color-Blind attitudes = Mean total Color-Blind Racial Attitudes Scale (COBRAS) scores. **Bold** = significantly different scores evidenced by Tukey's post-hoc analysis.

Specialty Differences in Cultural Competence When Accounting for Training

Given that cultural competence training was a significant predictor of cultural competence and given that there were differences in cultural competence training by

specialty, we conducted a follow-up MRC to determine if the observed specialty differences in cultural competence could be explained by differences in provider cultural competence training. In step one of the model we included the original control variables from our main hypotheses: social desirability, provider gender, provider ethnicity, and years of uniformed practice. In the second step, cultural competence training was added, and in the third step provider specialty was added (dummy coded). The results of this MRC are presented in Table 21.

As found in the previous MRC analysis for hypothesis one, cultural competence training was a large and significant predictor of self-reported cultural competence, even after controlling for social desirability, gender, ethnicity and years of practice ($R^2 \Delta = .120, p < .001$). However, after controlling for prior cultural competence training, provider specialty was no longer a significant predictor of cultural competence ($R^2 \Delta = .011, p = .246$), indicating that differences in cultural competence by provider specialty can largely be explained by prior cultural competence training. Therefore, it is likely that the reason active duty psychologists in this sample reported more cultural competence than active duty psychiatrists is due to psychologists having more prior cultural competence training.

Table 21

*Summary of Follow-up Hierarchical Regression Analysis for Specialty Predicting**Provider Cultural Competence after Controlling for Training (N=114)*

Variable	B	Std Error	β	<i>t</i>	<i>p</i>
Step 1					
Social Desirability	.23	.33	.07	0.69	.489
Years of Practice	.17	.10	.16	1.73	.087
Gender	.19	1.62	.01	0.12	.905
Ethnicity	-2.41	1.83	-.13	-1.32	.192
Step 2					
Amt Training	.63	.16	.40	3.94	<.001
Step 3					
Specialty	-1.18	1.02	-.13	-1.17	.246

Model Summary:

Step 1. Covariates alone: $R^2 = .040$ ($R^2 \Delta = .040, p = .359$)

Step 2. Step 1 + Training: $R^2 = .160$ ($R^2 \Delta = .120, p < .001$)

Step 3. Step 2 + Specialty: $R^2 = .171$ ($R^2 \Delta = .011, p = .246$)

Notes. The R^2 values correspond to the percentage of variance accounted for by the model including the variables listed.

$R^2 \Delta, p$ represents the p-value, or significance, of the change in R^2 accounted for in the current step compared to the previous step.

Ethnicity = Minority, White (dichotomized).

Amt Training = Amount of prior cultural competence training.

Specialty = Provider Specialty (i.e., Psychologists, Psychiatrists, Social Workers).

Regression Incorporating All Significant Predictors of Cultural Competence

We decided to compute one final MRC analysis that included all the significant predictors of self-reported cultural competence from this study. The original control variables (social desirability, gender, ethnicity, and years of clinical practice) were excluded from this final regression equation because none of these variables significantly

predicted cultural competence in any of the previous MRC analyses. Therefore, the final MRC predictor variables included the main hypothesis variables (amount of prior cultural competence training and amount of prior cross-cultural clinical experiences), color-blind racial attitudes (measured with the COBRAS), provider specialty, and attitudes on the importance of cultural competence. The results of this final MRC are presented in Table 22.

This final MRC model accounted for 29.3 % of the total variance in mean cultural competence scores, corresponding to a large effect size according to Cohen's (1988) standards of small, medium, and large effect sizes (.010, .059, and .138, respectively). In this model, cultural competence training was again a significant independent positive predictor of cultural competence ($R^2 \Delta = .128, p < .001$). Amount of cross-cultural clinical experience was reduced to demonstrating a trend towards being a significant positive cultural competence predictor ($R^2 \Delta = .027, p = .066$). Color-blind racial attitudes also were still a significant negative predictor of provider cultural competence ($R^2 \Delta = .094, p < .001$). In this particular regression model, provider specialty was a significant independent positive predictor of cultural competence ($R^2 \Delta = .031, p = .034$) even though it was not a significant predictor in the previous follow-up MRC analyses. The only variable that was not a significant predictor in this model was providers' attitudes on the importance of cultural competence to their active duty clinical practice ($R^2 \Delta = .014, p = .156$).

Table 22

Summary of Final Hierarchical Regression Analysis for all Significant Study Predictors

Predicting Provider Cultural Competence (N=114)

Variable	B	Std Error	β	<i>t</i>	<i>p</i>
Step 1					
Amt Training	.52	.15	.33	3.55	.001
Step 2					
Amt Experience	1.71	.85	.18	2.01	.048
Step 3					
COBRAS	-.15	.05	-.26	-2.87	.005
Step 4					
CC-importance	1.47	.80	.17	1.84	.068
Step 5					
Specialty	-1.98	.92	-.21	-2.15	.034

Model Summary:

Step 1. Amt Trng:	$R^2 = .128$	$(R^2 \Delta = .128, p < .001)$
Step 2. Step 1 + Amt Experience:	$R^2 = .155$	$(R^2 \Delta = .027, p = .066)$
Step 3. Step 2 + COBRAS:	$R^2 = .249$	$(R^2 \Delta = .094, p < .001)$
Step 4. Step 3 + CC-importance:	$R^2 = .263$	$(R^2 \Delta = .014, p = .156)$
Step 5. Step 4 + Specialty:	$R^2 = .293$	$(R^2 \Delta = .031, p = .034)$

Notes. The R^2 values correspond to the percentage of variance accounted for by the model including the variables listed.

$R^2 \Delta$, p represents the p-value, or significance, of the change in R^2 accounted for by current step compared to the previous step.

Amt Training = Amount of provider prior cultural competence training.

Amt Experience = Amount of provider prior cross-cultural clinical experience.

COBRAS = Color Blind Racial Attitudes Scale.

CC-importance: Provider attitude on the importance of cultural competence to clinical practice

Specialty: Provider specialty (i.e., Psychologist, Psychiatrist, and Clinical Social Worker)

DISCUSSION

The purpose of this study was to conduct an assessment of the cultural competence of military mental health providers (psychologists, psychiatrists, social workers) and to determine if modifiable (e.g., amount of cultural competence training, amount of clinical experience with ethnic minorities) and non-modifiable (e.g., age, gender, ethnicity) variables significantly predicted cultural competence in military mental health providers. Results seemed to indicate that, in general, the military providers in this sample perceived themselves to be more culturally competent than a normative sample of civilian counterparts. In addition, we found that providers' prior cultural competence training (modifiable predictor) was a strong positive predictor of their self-perceived cultural competence. Providers' prior cross-cultural clinical experience (modifiable predictor) was a modest positive predictor of cultural competence. Providers' color-blind racial attitudes (modifiable predictor) also were a strong, but negative, predictor of cultural competence. Finally, we found that provider gender, race/ethnicity, and number of years of active duty clinical practice (non-modifiable predictors) were not related to cultural competence. Results seemed to indicate that psychologists reported more cultural competence than psychiatrists, however this difference was largely attributed to psychologists having more cultural competence training.

Hypothesis One: *Amount of Cultural Competence Training*

Results showed that mental health providers' prior cultural competence training had a large and significant relationship to their self-reported cultural competence. This relationship was found even after accounting for provider gender, race/ethnicity, number of years of practice as a military provider, and potentially socially desirable responding.

This result is consistent with the majority of studies that have shown a significant association between cultural competence training and improvements in cross-cultural knowledge, awareness, and skills (i.e., cultural competence) (e.g., Constantine, 2001a; Ottavi et al., 1994; Pope-Davis et al., 1994, 1995). In addition, the effect sizes that we found for cultural competence training in our study ranged from 12.1 to 12.8% ($= R^2 \Delta$), and were slightly larger than the effect sizes found in previous similar studies. For example, in an analogue study of 52 counseling psychology graduate students, Constantine (2001a) found that the number of previous multicultural courses taken accounted for 8% of the unique variance in cultural competence scores measured by the Cross-Cultural Clinical Inventory-Revised (LaFromboise et al., 1991). Similarly, Sadowsky et al. (1998) found that cultural competence training contributed to 10% of the variance in cultural competence scores in a survey of 176 practicing counseling psychologists from across the United States. However, it is worth noting that cultural competence training included several variables including ethnic minority caseload, number of multicultural research projects, number of multicultural courses taken, and number of multicultural workshops completed, and only multicultural courses contributed statistically significant independent variance.

In their meta-analytic review of 82 high quality studies, Smith and colleagues (2006) found a moderate effect size (0.49) for the association between cultural competence training and cultural competence from retrospective survey studies similar to ours.

Our particular finding contributes to the literature in two ways. First, the majority of previous studies have used mostly graduate student samples. Our study is one of the

few that has demonstrated the effectiveness of cultural competence training in a sample of *practicing* providers. Second, this is one of the first studies to document cultural competence using a newer, but psychometrically sound, empirically-designed measure of cultural competence (i.e., the California Brief Multicultural Competence Survey; CBMCS).

Hypothesis Two: *Amount of Cross-Cultural Experience*

Results revealed that active duty mental health clinicians with more experience treating ethnic minorities perceived themselves as more culturally competent than clinicians with less experience treating ethnic minorities, regardless of clinician gender, race/ethnicity, number of years of military practice, and potentially socially desirable responding.

Several studies have shown that prior clinical experience with ethnic minorities is associated with increased cultural competence. Our finding further supports this particular area of research. Three separate studies of counseling psychology graduate students found positive effects for multicultural caseload being significantly associated with self-reported cultural competence as measured by the Multicultural Counseling Inventory (MCI; Sadowsky et al., 1994). Ottavi and colleagues (1994) found a significant positive correlation ($r = .34$) between number of contact hours with clients of color and the MCI Awareness subscale. Pope-Davis et al. (1995) found a significant association between the same independent variable and three of the four MCI subscales, with the highest correlation being $r = .28$. Using the same variables, Sadowsky et al. (1998) found a correlation of $r = .32$. Bellini (2002) operationalized prior cross-cultural clinical experience in a manner very similar to our study: multicultural caseload = “none

to 25%,” “26-50%,” “51-75%,” and “more than 75%.” She found similar results ($r = .24$) using the MCI in her sample of 175 vocational rehabilitation counselors. The Pearson correlation that we found in this study ($r = .21$) closely matched these studies.

Additional Exploratory Analyses

Color-Blind Racial Attitudes and Cultural Competence

We found a strong relationship between providers’ color-blind racial attitudes and their self-perceived cultural competence. Although there is a dearth of information on the relationship between these two variables, our finding is consistent with the few published studies.

Using hierarchical multiple regression, Chao (2005) found that color-blind racial attitudes (measured with the COBRAS) were a significant negative predictor of self-reported cultural competence (measured with the Multicultural Counseling Knowledge and Awareness [MCKAS]; Ponterotto et al., 2002) in a sample of 338 members of the American Psychological Association or the American Counseling Association. The author found a large effect size (i.e., R^2 change = 0.29), even after accounting for social desirability, racial status, ethnic identity status, and prior multicultural training. Although we also found a large effect size (R^2 change of .146), the effect size found by Chao (2005) was nearly double ours. Even though we used similar control variables to the author (i.e., social desirability, racial status, and prior multicultural training), it is likely that Chao’s much larger sample ($n = 338$) contributed to the larger effect that she found.

Neville et al. (2006) found similar results in two samples of 130 psychology graduate students and mental health workers using the same measures as Chao (2005). After accounting for social desirability, participant ethnicity, and prior multicultural

training, COBRAS scores exhibited a large effect size (i.e., R^2 change = 0.21). This effect size was closer to the effect size that we found using a similar sample size. We also included years of clinical practice in our model, which accounted for a relatively significant amount of variance in cultural competence scores, thereby attenuating the unique variance accounted for by COBRAS scores.

In sum, our study adds to this relatively new line of research exploring the association between color-blind racial attitudes and cultural competence. In conjunction with other studies, our study indicates that color-blind racial ideology may be an important component of cultural competence, perhaps even more important than other studied predictors such as cultural competence training and cross-cultural clinical experience, given that the effect of color-blindness was larger than these other predictors. Our study also extends the literature to two new populations: *practicing* providers, and *military* providers.

Self-Awareness of Biases and Cultural Competence Limitations

In our prior study of military primary care physicians, we found that increased cultural competence training and cross-cultural clinical experience were both associated with *lower* cultural competence, in direct contradiction to the literature. Because of these perplexing results, we created seven questions that we believed might have accounted for the relationship between these predictors and cultural competence. Our hypothesis was that the more training and experience a provider had, the more aware they would be of their inherent biases, how their biases affected their clinical practice with ethnic minorities, and how their cultural competence was limited. As a result of this self-awareness, providers would then rate their cultural competence more *accurately* (i.e., rate

themselves lower in cultural competence), thus demonstrating an inverse effect. There is some research to support this inference. Drawing on previous research showing that individuals tend to hold overly favorable views of their abilities in many social and intellectual domains, Kruger and Dunning (1999) found that individuals low in competence tend to overestimate their abilities due to their lack of meta-cognitive skills. The authors claim that individuals low in competence suffer a “dual burden” due to being both unskilled and lacking insight into the true extent of their skills (p. 1121). The authors further found that the more competent individuals became, the more accurate they were in their assessment of their true competence levels.

Based on this prior work, we used the current study as an opportunity to assess the psychometric properties of a brief self-awareness instrument developed for this study, and to determine if the instrument demonstrated an inverse relationship with cultural competence as predicted. Unfortunately, results showed that this new self-awareness measure had virtually no relationship with cultural competence ($r = -.07$, see Table 9 above). Although this relationship was in the direction we predicted (inverse), it was not significant ($p = .46$). Furthermore, these seven items demonstrated poor consistency with one another (i.e., Cronbach’s $\alpha = .554$), indicating that these items reflected no clear construct.

Interestingly, this self-awareness measure demonstrated significant relationships with color-blind racial attitudes and social desirability. Similar to cultural competence (CBMCS), this 7-item measure was inversely related to color-blind racial attitudes (COBRAS) ($r = -.241, p = .010$; see Table 9). This relationship suggests that greater self-awareness of personal biases and cultural competence limitations was related to lower

levels of racism-related (i.e, color-blind) racial ideology. This finding lends partial support to this 7-item measure's reflection of awareness. In other words, cultural self-insight appears to be related to cultural environmental/ institutional insight.

With regard to social desirable responding, the greater respondents' awareness of personal biases and cultural competence limitations, the less they engaged in positive impression management. This relationship seems to suggest that these seven items capture a more accurate perception of respondents' true attitudes about themselves. Because of this important relationship, it is perhaps worth continuing to explore the utility of this brief cultural competence self-awareness instrument. However, improving the internal consistency of this measure would need to be the priority. Because increasing the number of items tends to improve the internal consistency of a measure (Nunnally & Bernstein, 1994), the measure could be expanded to include additional items reflecting the construct of interest.

Specialty Differences in Cultural Competence

With regard to the relationship between various non-modifiable variables (e.g., gender, race/ethnicity, branch of service, degree type, number of deployments, specialty) and cultural competence, the only significant predictor that we found was provider specialty. In particular we found that psychologists, on average, rated themselves to be higher in cultural competence knowledge and awareness than psychiatrists. However, follow-up analyses revealed that two of the three significantly different knowledge items were related to psychological tests and research (see Table 17). These differences make intuitive sense given that psychologists are uniquely trained in psychological testing and, by virtue of their graduate (versus medical) degree, receive more training in reviewing,

conducting, and evaluating research. The third knowledge item that differentiated these two specialties related to knowledge of acculturation models. Again, psychologists are much more likely to encounter this training during their graduate coursework than psychiatrists might during their medical coursework.

Because of these idiosyncratic items, we removed these three items to determine if these specialty differences in cultural competence still existed. Follow-up analyses revealed that after removing these three items, there were no longer specialty differences in total cultural competence scores.

With regard to cultural competence awareness, psychologists scored higher than psychiatrists on two items: “I am aware that being born a White person in this society carries with it certain advantages,” and “I can identify my reactions that are based on stereotypical beliefs about different ethnic groups.” These two items seem to indicate that psychologists for possibly unexplained reasons tend to possess greater insight into their own stereotypical beliefs as well as environmental effects related to race differences. Another possible explanation is that there are no differences in awareness between these two specialties, but that psychologists are more willing to admit and report their biases. The 7-item ad hoc measure that we created contained a similar self-awareness of biases item: “I am aware that I may have personal biases regarding racial/ethnic minorities.” Descriptively, psychologists more strongly endorsed this item than psychiatrists, although this difference did not reach statistical significance ($p = .398$).

Another measure that may shed some light on this specialty difference in awareness is the Color-Blind Racial Attitudes Scale (COBRAS). As shown in Table 20

above, there was a trend toward psychiatrists endorsing more color-blind racial attitudes than psychologists ($M = 62.0$, $SD = 14.1$ vs. $M = 55.8$, $SD = 11.6$, respectively, $p = .098$). The COBRAS is largely a measure of awareness (to the existence of racism in the U.S.). In particular, one of the three COBRAS subscales is “Racial Privilege,” which reflects blindness to the existence of White privilege (Neville et al., 2000), and is conceptually very similar to the CBMCS item “I am aware that being born a White person in this society carries with it certain advantages.” Thus, it is possible that psychologists reported more awareness than psychiatrists because of their lower levels of color-blind ideology.

It is also important to point out that although psychologists reported higher levels of cultural competence than psychiatrists, psychiatrists still scored above average (compared to the normative sample of civilian mental health providers) with regard to their overall cultural competence score, as well as their knowledge and awareness subscales scores (percentile rank = 62nd, 59th, and 68th, respectively). In addition, with regard to clinical significance, one can argue that it may be difficult (and therefore, less meaningful) to discriminate true cultural competence differences between psychologists and psychiatrists whose overall scores differ by only four points on a 63-point scale.

The most empirically valid explanation for the differences in cultural competence between active duty psychologists and psychiatrists most likely involves the amount of providers’ prior cultural competence training. As shown in Table 20, the psychologists in this study sample reported more overall cultural competence training than psychiatrists. An argument could be made that the reason psychologists report more cultural competence training is due to cultural competence training being an inherent part of their graduate training. However, as the results in Table 20 also show, psychologists reported

more elective training compared to psychiatrists when this variable was further partialled into required and elective training. These findings seem to demonstrate that psychologists not only experience more training as part of their required coursework, but that they seek out additional training more frequently than psychiatrists. We tested the effect of training and reported the results in Table 21 above. In this follow-up MRC we tested whether provider specialty remained a significant predictor of cultural competence after accounting for amount of total prior cultural competence training. The results showed that specialty was no longer a significant predictor after controlling for amount of training, indicating that provider differences in cultural competence could be explained by differences in their cultural competence training. In conclusion, although it would appear that military psychologists are more culturally competent than military psychiatrists, this difference is likely due to differences in general graduate level training and in specific cultural competence training.

Finally, it is important to consider possible career self-selection differences between psychologists and psychiatrists. Anecdotally, it is probable that many psychologists enter into their chosen field because of inherent values and beliefs that involve forming deep (i.e., therapeutic) relationships with their clients. These personality differences could therefore be translated into increased cultural competence. On the contrary, a similar broad generalization can be made that psychiatrists self-select medical school and medical training because of personality characteristics that are more conducive to a rational/analytical approach to client care.

Race/Ethnicity Differences

It is worth noting that there were no statistically significant differences in cultural competence between ethnic minority and Caucasian mental health providers in this sample. Although ethnic minority providers scored descriptively higher than Caucasian providers ($M = 64.4$, $SD = 10.5$ vs. $M = 64.4$, $SD = 10.5$), this difference was not statistically significant ($p = .432$). Furthermore, post-hoc power analyses revealed that, based on the effect size we found (0.202), power set at 80%, and alpha level set at .05 (two-tailed), a total sample size of 1,191 respondents (Caucasian providers = 948, ethnic minority providers = 243) would have been necessary to detect statistically significant differences. In addition, African American providers ($M = 67.8$, $SD = 14.0$) and providers of two or more races ($M = 80.0$, $SD = 2.8$) reported descriptively higher levels of cultural competence than Caucasians ($M = 62.2$, $SD = 6.9$). However, these were statistically invalid comparisons because of the small number of respondents in each of these ethnic groups (African Americans = 5, Two or more races = 2). These severely unequal cell sizes (i.e., Caucasian respondents = 91) were the reason we combined all minorities into a single group for all analyses using race/ethnicity.

However, this descriptive cultural competence difference among racial providers is inconsistent with the published literature. For example, Pope-Davis and Ottavi (1994) found that Asian American and Hispanic doctoral-level counselors scored significantly higher than Caucasian counselors in cultural competence knowledge and that African American, Asian American, and Hispanic counselors scored significantly higher than Caucasians in cultural competence awareness. Pope-Davis and colleagues (1995) found similar results in a survey of psychology graduate students. In their study minority

counselors (all races/ethnicities combined) reported significantly more competence in multicultural awareness, knowledge and relationships than Caucasians. Other correlational studies have shown an ethnic difference with minority providers self-reporting more cultural competence than Caucasian providers (Acosta, 1995; Bellini, 2002; Holcomb-McCoy & Myers, 1999; Sadowsky et al., 1998; Whitehead, 2004) using sample sizes ranging from 117 to 500 participants. A single study by Constantine (2001a) used objective observer ratings of cultural competence (Cross-Cultural Counseling Inventory-Revised; CCCI-R, LaFromboise et al., 1991) to assess ethnic differences in cultural competence. The author found that African American and Latino counselors were rated by clients as having higher cultural competence than Caucasian counselors.

In addition to being underpowered to detect a statistical difference, it is possible that the reason we did not find an effect for provider race/ethnicity was due to the use of a different/new cultural competence measure (i.e., the California Brief Multicultural Competence Survey; CBMCS). All the studies reviewed above used the Multicultural Counseling Inventory (MCI; Sadowsky et al, 1994), the Multicultural Counseling Competence and Training Survey (MCCTS; Holcomb-McCoy & Myers, 1999), the Multicultural Awareness-Knowledge-Skills Survey (MAKSS; D'Andrea et al., 1991) or the Cross-Cultural Counseling Inventory-Revised (CCCI-R; LaFromboise et al., 1991). Furthermore, in the original validation study of the CBMCS among a large sample (N = 1,244) of practicing providers Gamst et al. (2004) found no effects of provider ethnicity.

Cultural Competence Importance and Interest

We added two simple items to our study to assess respondents' interest in cultural competence training and attitude on the importance of cultural competence to their active duty practice. Responses were measured on 5-point Likert scales from "None" to "A lot" ("How interested are you in more cultural competence training?") and from "Not at all important" to "Extremely/vitally important" ("How important do you think cultural competence is to your practice as an active duty mental health provider?").

Attitudes on the Importance of Cultural Competence

An interesting finding from our study was the significant correlation between respondents' attitudes on the importance of cultural competence and their total cultural competence scores ($r = .338, p < .001$; see Table 9), corresponding to a medium effect size. This positive correlation indicates that the more that respondents believed cultural competence was important to their practice, the more they perceived themselves to be culturally competent. From an intuitive standpoint, this finding is not all that surprising, although the fact that the association with cultural competence was stronger than the association between years of provider cross-cultural clinical experience and cultural competence ($r = .213$) is noteworthy.

More detailed analyses revealed an even stronger association between providers' attitude on the importance of cultural competence and their scores on the Awareness subscale of the CBMCS ($r = .443, p < .001$). The six Awareness items on the CBMCS primarily reflect respondents' awareness of racial privilege (e.g., "I am aware of being born a White person in this society carries with it certain advantages."), personal biases (e.g., "I can identify my reactions that are based on stereotypical beliefs about different

ethnic groups.”), and the effect of provider attitudes on ethnic minority patients (e.g., “I am aware that counselors frequently impose their own cultural values upon minority clients.”). Thus, the more aware active duty mental health providers are of their biases, racial privilege and institutional discrimination, the more important they tend to believe that cultural competence is to their practice.

In addition, there was a small, but significant positive relationship between providers’ attitudes on the importance of cultural competence and socially desirable responding ($r = .185, p = .049$; see Table 9). This finding indicates that the more providers espoused the importance of cultural competence training to their practice, the more likely they were presenting overly favorable views of themselves. This association somewhat attenuates the significance of the association between providers’ attitude on the importance of cultural competence and their levels of cultural competence.

Interest in Cultural Competence Training

Providers’ interest in more cultural competence training was not statistically significantly related to their total cultural competence scores ($r = .124, p = .188$; see Table 9), but it was highly related to their Awareness subscale scores ($r = .338, p < .001$; effect size = medium). This finding indicates that the more interested in cultural competence training expressed by providers, the more aware they tend to be of their stereotypes, institutional discrimination, and the effect of their biases and culture on their clinical care. Given that the providers in this sample had relatively little cultural competence training (i.e., the majority reported less than two days of required and elective training, 59% and 75%, respectively), this finding could mean that providers generally feel inadequate and are simply interested in more cultural competence training.

However, two findings would provide evidence against this conclusion. First, on average, the mental health providers in this study reported relatively high levels of cultural competence (i.e., mean cultural competence score = 62.5 [see Table 8], corresponding to the 74th percentile of the CBMCS normative sample). Second, the providers were generally honest in their reporting (i.e., mean social desirability scores = 3.3 on scale from 0 – 10; mean scores in a normative sample of college students = 4.5).

Study Limitations

As with any study, this study was not without limitations. We will discuss limitations related to the internal validity of the study first, followed by a discussion of external validity limitations.

Threats to Internal Validity

There are at least three possible variables that may have affected the results of our study: 1) measurement error, 2) selection bias of the sample, and 3) socially desirable responding. These variables that are a threat to the internal validity of this study are germane to most correlational studies.

Measurement Error/Issues

The internal validity of this study could have been affected by systematic measurement error or poor measurement of the variables of interest.

Primary outcome measure. The primary outcome measure in this study was the California Brief Multicultural Competence Scale (CBMCS; Gamst et al., 2004). It was not likely that the CBMCS was contaminated by systematic measurement error because the overall reliability of the measure in this study was high ($\alpha = .897, p < .001$), indicating that the CBMCS demonstrated good internal consistency among its 21 items.

In addition, it also is unlikely that there was significant quantitative data reduction and analytic error in the study due to the on-line nature of the study. An on-line computerized assessment eliminates measurement errors due to potential human error involved in paper-and-pencil administration. Therefore, any measurement errors due to scale reliability and/or data reduction are negligible, and likely would not have affected the overall statistical differences observed in our study.

It also is possible that our primary outcome measure poorly captured the construct of cultural competence. Although the CBMCS is new and has been used relatively little in published research, the strengths of the measure include its excellent psychometric properties, empirical creation and validation, and expanded assessment of cultural competence (i.e., measures more than racial/ethnic minority competence), and normative data. These were the reasons this particular instrument was chosen over the several other cultural competence measures that have been in existence much longer and have been used much more frequently in the published literature. In addition, there is no accepted “gold standard” measure of cultural competence. As discussed in the review of the literature in the introduction section above, a variety of measures (e.g., MCI, MAKSS, CCCI-R) based on a variety of cultural competence theories and frameworks (e.g., Cross et al., 1989; Bennett, 1986, 1993; Sue et al., 1982, 1992) have been postulated.

The main limitation of the CBMCS relates to its face validity. As is true of all self-report measures, the CBMCS is vulnerable to respondents distorting their responses. Although respondents’ social desirability scores did not significantly correlate with their cultural competence scores, it is likely that intelligent respondents (such as the graduate level providers in this sample) could intentionally skew their responses so as to appear

more culturally competent than they actually are. The CBMCS could be improved with the inclusion of items that more directly assess culturally competent behavior. Examples of more behaviorally-oriented items might include: “I always include important culturally-significant factors when formulating my client case conceptualizations,” or “I ask ethnic minority clients to help me understand important aspects of their culture, when appropriate and clinically indicated.”

Another limitation of the CBMCS is its lack of inclusion of reverse-coded/scored items. By lacking this questionnaire design feature, the CBMCS is potentially vulnerable to acquiescence bias (i.e., ‘yea-saying’ or ‘nay-saying’) and ceiling effects. However, results showed that respondents’ total scores were relatively normally-distributed and represented nearly the full range of possible CBMCS scores. Therefore, it is not likely that this potential vulnerability invalidated the use of the CBMCS in the study.

Due to study constraints, we were only able to measure cultural competence with a single brief measure. Given the complexity of cultural competence, a more valid measurement of this construct would involve multimodal assessment. An ideal study measuring cultural competence might include a self-report measure such as the ones previously discussed, in addition to including a more objective observer-rated assessment such as the Cross-Cultural Clinical Inventory-Revised (CCCI-R; LaFromboise et al, 1994), which is usually completed by a patient or, more ideally, by a blind rater in the case of a true empirical study. In addition, a better test of cultural competence is demonstrated cultural competence skills. The closest the published literature has come to assessing cultural skill is several studies documenting the association between cultural competence and multicultural case conceptualization ability (e.g., Allstetter-Neufeldt et

al., 2006; Constantine et al., 2005; Likier, 2005). In addition, a common medical school examination technique (Objective Structured Clinical Examination; OSCE) could be used to more objectively assess cultural competence. Cultural competence knowledge could have been more directly assessed by asking respondents specific knowledge questions about the cultures of various ethnic minority groups, ethnic minority mental health behaviors, or epidemiology of racial psychopathology. Since one of the ultimate goals of culturally competent providers is patient satisfaction, a measure related to this construct might also be included in an ideal study. Finally, since many researchers believe in a continuum of cultural competence (e.g. Campinha-Bacote, 2002; Cross et al., 1989) rather than a dichotomous “either/or” concept, a more accurate reflection of provider cultural competence might involve repeated measurements over time.

In sum, because of the psychological complexity of cultural competence and the lack of a single comprehensive measure, cultural competence is probably most accurately reflected via multimodal assessment. However, due to several study constraints mostly involving the attempted recruitment of very busy practicing active duty military mental health providers, a multimodal assessment of cultural competency was not possible. In addition, the methods of our study are consistent with similar correlational studies in the literature.

Amount of cross-cultural clinical experience. Prior published studies have measured respondents’ clinical experience a number of ways including client contact hours with persons of color (e.g., Ottavi et al., 1994; Pope-Davis et al., 1995) and number of ethnic minority clients (e.g., Allison et al., 1996; Crawford, 2001; Sadowsky et al., 1998). The study that came closest to measuring prior experience the way we did in our

study was conducted by Bellini (2000). The author divided the percentage of respondents' ethnic minority caseload into categories that included "none – 25%," "26 – 50%," "51 – 75%," and "more than 75%." All these studies found significant associations between prior experience and self-reported cultural competence. The effects they found, however, were slightly larger than ours (average $r = .30$ vs. $r = .21$).

We decided to operationalize providers' previous experience treating ethnic minority patients (hypothesis two) using a 5-point Likert-type scale: "None," "Little," "Occasional," "Frequent," and "Extensive." Because these descriptors are subject to interpretation, we assisted potential respondents in discriminating among the categories by adding the following statements in parentheses following each rating: "racial/ethnic minorities account for (less than 25% / approximately 26-50% / approximately 51-75% / approximately 76-100%) of all the patients you have ever seen." The reason we chose to operationalize experience in the way we did was because we felt it would be easier (and thus, more accurate) for respondents to estimate the percentage of their ethnic minority caseloads rather than trying to estimate the actual number of ethnic minority clients that they may have seen or the number of contact hours over potentially many years.

Although this operationalization provided more discriminative information, we are aware of its limitation because it still required respondents to attempt to accurately recall several years of clinical experience. Therefore, respondents' ratings on this variable were vulnerable to recall bias, and respondents may have under- or over-estimated their total amount of experience providing health care to ethnic minorities. Our study may have over-estimated their true amount of clinical experience with ethnic minorities. As we previously mentioned, because there are so few ethnic minorities (e.g.,

29% of U.S. population, 36% of military population), it appears improbable that the providers in our sample could have as much cross-cultural experience as they reported. Our sample either over-reported their true level of experience or represent a unique sample of the population that has explicitly focused their practice with ethnic minorities.

Amount of cultural competence training. A similar limitation exists with the way the providers' amount of prior cultural competence training (hypothesis one) was operationalized. Response categories for this assessment item included the following: "None," "1-3 hours," "4-7 hours," "8-10 hours," "11-16 hours," "2 days - 1 week," "1-2 weeks," "3-12 weeks," "13-20 weeks," and "21 or more weeks." In contrast to amount of prior cross-cultural experience, there was a wider range of response options for amount of training, which allows for a more detailed discrimination on this particular item. However, similar to amount of cross-cultural clinical experience, responding to this question required providers to recall all of their training experiences, discriminate those that were related to cultural competence, and the sum all of these cultural competent experiences. Therefore, similar to amount of experience, this item also was vulnerable to respondent recall bias.

In addition, at the end of the question "How much training have you had in cultural competence?" we added the following statement in parentheses: "(i.e., training on acquiring the knowledge, awareness, or skills to communicate and work effectively in cross-cultural encounters)." We specifically added this statement so that "training in cultural competence" would not be left open to a blanket interpretation. However, given the wide variety of cultural competence training that exists and the variety of modalities in which it might be taught (e.g., lectures, small group discussions, reading, on-line

training), it is plausible that respondents may still have had difficulty in deciding which of all their training met this definition (Lippy, 2007). For example, a psychiatrist respondent may have had difficulty in deciding if a single class on interviewing ethnic minorities in a medical school course on clinical assessment constituted “cultural competence training.” Another example might include a respondent subjectively reasoning that an undergraduate course on “cultural diversity” constituted cultural competence training as defined in this study.

In sum, although a concerted effort was made to define cultural competence training as objectively as possible, individual differences in respondents’ interpretation and reasoning may have increased the variability of answers to this question, and thereby affected the results of the study.

Selection Bias

It also is possible that selection bias existed in this sample of mental health providers. The providers who responded to this on-line study may have been different than providers who decided not to respond to the study. Most of the potential participants were members from comprehensive professional list serves (e.g., American Psychological Association (APA) Division 19 (Military Psychology) practice list serve, American Psychiatric Military Members list serve, and the Institute for the Advancement of Social Work Research list serve). It is highly likely that not all military mental health providers were members of these particular list serves. In addition, we also contacted the mental health departments at several military medical treatment facilities including the National Naval Medical Center (NNMC) in Bethesda, Maryland, Naval Medical Center San Diego (NMCSD) in San Diego, California, Walter Reed Army Medical Center

(WRAMC) in Washington, DC, and Malcolm Grow Medical Center (MGMC) at Andrew Air Force Base, Maryland. Although not likely, it is possible that the providers at these particular clinics were not necessarily representative of all active duty mental health providers. There also may have been differences between providers at these larger military treatment facilities from providers practicing at smaller clinics.

Due to study constraints and because we used a sample of convenience, we were unable to collect demographic information (e.g., age, gender, ethnicity, branch of service) of non-respondents, which would have allowed comparison with the sample respondents. However, the demographics of the respondents were, in general, similar to the demographic characteristics of military mental health providers with regard to gender and ethnicity. In addition, the providers who chose to respond were given little incentive (i.e., were not potentially coerced with monetary compensation or other material gain). With regard to recruitment efforts, anonymity also was guaranteed decreasing the possibility of providers being less than forthright regarding their true attitudes and beliefs. In addition, participation in the study involved a relatively small time commitment (i.e., approximately 15 minutes), potentially minimizing the effect that providers' limited time may have had on the results. Therefore, these study design factors should have minimized possible selection bias effects.

The most definitive way to assess selection bias and to test whether or not respondents were truly different from non-respondents would be to administer our cultural competence measure to both groups to determine if the providers in this sample were more culturally competent than the providers not a part of these organizations.

Socially Desirable Responding

Socially desirable responding is also a factor that may have potentially influenced the results of the study. Because cultural competence includes topics related to culture, race, racism, discrimination, and bias, it is logical to assume that respondents may become uncomfortable with the topic and might naturally distort their responses so as to reflect a more favorable view of themselves. Several researchers have pointed to the susceptibility of self-report measures of cultural competence (such as the one used in this study) to social desirability effects (e.g., Constantine & Ladany, 2000; Pope-Davis & Dings, 1995; Sadowsky, 1996; Sadowsky et al., 1998; Worthington et al., 2000). The study results showed that the mental health providers in this sample did not respond in a significantly socially desirable manner (i.e., respondent social desirability did not correlate with cultural competence; see Table 9), at least as measured by the Marlowe-Crown Social Desirability Scale-Short Form (MC-10, Strahan & Gerbasi, 1972). As we have previously commented, given this emotional topic and providers' inherent bias and likely desire to not want to appear culturally biased, it seems likely that this sample engaged in some form of socially desirable responding. The reason it may not have been reflected on the Marlowe-Crowne Social Desirability Scale may have been due to the intelligence of our graduate-level respondents and some of the respondents familiarity with social desirability concepts (e.g., many psychologists are familiar with social desirability scales, of which the Marlowe-Crowne Social Desirability Scale is one of the most well-known).

Despite the lack of association between cultural competence and social desirability, we still included social desirability as a control variable in our main

regression analyses. Our main findings were all still significant after accounting for social desirability. Regression analyses also showed that social desirability was not a significant independent predictor of cultural competence. Therefore, we can be reasonably confident that social desirability was not a significant confound in this study, and by itself did not cause significant selection bias or measurement error.

External Validity and Generalizability

A potential limitation to the study relates to the representativeness of the sample. Based on the most recent demographic statistics, our sample appears, on average, to reflect the total population of active duty DoD mental health providers

With regard to gender, our study respondents were 59% men and 40% women, very closely matching the study population (60% men, 40% women). With regard to race/ethnicity, 5% of the respondents were Hispanic or Latino, 4% were African Americans, 7% were Asians, 2% were American Indian/Alaskan Native, 1% were Native Hawaiian/Pacific Islander, and 1% were two or more races, meaning 20% of the total sample was an ethnic minority. The total population of all active duty mental health providers consists of slightly higher percentage of African Americans (9% vs 4%), a slightly lower percentage of Asians (4% vs. 7%), and approximately the same percentage of American Indian/Alaskan Natives (1% vs. 2%), and Caucasians (77% vs. 79%) (DMDC, 2007). Approximately 9% of the population's race is unknown (DMDC, 2007). Demographics statistics also do not contain information on the percentage of Latinos/Hispanics (DMDC, 2007). With all minorities combined, the study sample consisted of higher percentage of ethnic minorities (20%) than the population of all active duty mental health providers (14%).

Demographic statistics also can be broken down by provider specialty. In our sample, social workers were the most ethnically diverse (43% minorities), followed by psychiatrists (17%), and psychologists (6%). This relative ranking among the specialties matches the study population in which social workers also are the most diverse (24%), followed by psychiatrists (11%), and then psychologists (8%). Compared to the study population, it appears that the social workers and psychiatrists in our study sample were more ethnically diverse (43% vs. 24% and 17% vs. 11%, respectively) and psychology respondents were slightly less ethnically diverse (6% vs. 8%). Based on the total number of mental health providers in each branch, Navy providers appeared to be over represented in our sample, likely due to the targeted recruitment at two major Navy military treatment facilities.

In sum, it appears that, on average, our sample is relatively representative of the study population of all active duty psychiatrists, psychologists, and social workers. The one exception is that our study appeared to over sample ethnic minorities based on their representation in the study population. This over-representation of ethnic minorities may be an artifact of using a sample of convenience, or it may be due to ethnic minorities being more likely to respond to a survey of cultural competence. Although the former conclusion could be verified in the future through random sampling from the population, the latter conclusion is an empirical question that remains to be answered.

Study Implications and Future Directions

Research Implications

Although our results were consistent with the published literature, there is a need to replicate the results because this was the first assessment of cultural competence in a

military mental health provider population. Furthermore, because this was the first study of its kind with this particular population, we used methodology and data analytic strategy (i.e., cross-sectional, correlational) that also was consistent with the majority of current cultural competence research. One purpose of this study was to conduct a baseline assessment of cultural competence in active duty mental health providers. Now that we have accomplished this task, the next logical step would be to replicate and expand this study with more sophisticated methodology. For example, longitudinal analyses would help to determine if provider cultural competence increases over time. It would also be important to determine if the change in provider cultural competence is linear or some other relationship (e.g., exponential, quadratic, etc.)

This study was one of the first studies to use a new measure of cultural competence: California Brief Multicultural Competence Survey (CBMCS). The CBMCS demonstrated good psychometric properties in this study. For example, the overall and subscales scores had high internal consistency (all Cronbach's alphas greater than .72), with the exception of the Sensitivity to Consumers subscale. This measure represents an improvement over previous self-report cultural competence scales for several reasons: excellent psychometric properties, empirical development and validation, brevity, statistically controlled for social desirability effects, and normative data with practicing (versus college students) professionals. Another unique feature of the CBMCS is its assessment of a broader conception of cultural competence that includes competence with other groups (e.g., persons with disabilities, lesbians, older adults, gay men, low SES, women). This study demonstrates the utility of the CBMCS for use in future self-report cultural competence research. However, as we discovered, the instrument can produce

artificial differences between different mental health specialties because of several idiosyncratic items. This fact should be taken into consideration in future studies. Normative data for different provider specialties also would be helpful. In addition, future researchers should consider the CBMCS's lack of inclusion of behavioral assessment items.

Another research implication of the present study is the need for a more thorough assessment of cultural competence. All the significant predictors together in this study only accounted for 29% of the variance in total cultural competence scores (see Table 22), meaning there are still more unknown variables related to self-perceived cultural competence than known variables. Future research needs to continue to explore other more predictive variables of cultural competence.

Similarly, because of the complexity of cultural competence and the variety of definitions, conceptualizations, and theories of cultural competence, cultural competence should be assessed via a variety of modalities. In particular, recent research has called for more objective measurement of cultural competence, to include skills assessment and patient ratings (e.g., Smith et al., 2006; Worthington et al., 2007). In fact, a recent comprehensive analysis of the cultural competence literature by Worthington and colleagues (2007) found that only 8% of the 81 studies reviewed included assessment of client outcomes such as satisfaction with providers and/or care received, self-disclosure, and attrition. Only 12% of the studies used objective ratings of provider cultural competence such as multicultural case conceptualization ability (Worthington et al., 2007).

Although most of the published cultural competence research has used samples of convenience, more progress needs to be made towards increasing external validity. External validity could be increased through the use of random sampling instead of samples of convenience. Although this study proved to be adequately powered to detect differences in our hypotheses, future studies should include larger sample sizes. In particular, although research has shown that ethnic minority providers self-report more cultural competence than their Caucasian counterparts, our study was seriously underpowered to detect this difference. Because provider ethnicity effects have important policy implications, it is important to continue to study this variable, especially because the military is more ethnically diverse than the general civilian population.

Future researchers also should endeavor for high response rates. The response rate in our study (approximately 10%) was relatively low. Response rates are of particular importance because of the difficulty of surveying this traditionally very busy population. There are several ways that response rates could be improved. A major strategy would be to obtain buy-in and official support and endorsement from senior leadership. Providers may have been more likely to respond to our survey if it had been officially endorsed by the Surgeon Generals of the three main services. Future surveys could also originate or be distributed by senior military medicine organizations. The time constraints of our study prevented us from exploring these particular options.

Another strategy for improving response rates with practicing providers could involve sending surveys to a random sample of providers and then following up by freeing up a specific block of time to allow these providers to log-on and complete the survey. Therefore, providers would not be forced to complete the survey during their

already precious free time or after working hours. A potential strategy for use with graduate students might involve integrating a survey similar to the one used in our study into the curriculum or making it a requirement of specific cultural competence training. All of these proposed ideas would likely involve much work and preparation. In addition, for these ideas to work and come to fruition would require a strong advocate of cultural competence and someone with sufficient knowledge and leadership to clearly articulate the benefits of these strategies.

Theoretical Implications

Social Desirability

For the most part, respondents in this study did not appear to respond in a highly socially desirable manner. Respondents' overall social desirability scores were lower than a group of "average" college students. In addition, social desirability, as measured by a short form of the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960), did not significantly correlate with CBMCS total or subscale scores. The exception was a significant, but small, correlation with the CBMCS Knowledge subscale ($r = .216, p = .021$). This finding suggests that the mental health providers in this study may have exaggerated slightly their level of cultural competence knowledge. In their examination of the influence of social desirability on the subscales of four popular self-report cultural competence measures, Constantine and Ladany (2000) also found that Knowledge subscales were the most susceptible to the influence of socially desirable responding. It also is worth noting that in the original validation study of the CBMCS, the authors (Gamst et al., 2004) found a similar correlation between social desirability and the CBMCS Knowledge subscale, $r = .18$, although the correlation did not reach

statistical significance. The fact that the CBMCS demonstrated low susceptibility to the influence of social desirability is not surprising given that the authors aggressively scanned for and excluded individual items that correlated significantly with social desirable attitudes (as measured on the Marlowe-Crowne Social Desirability Scale) in the original development of the scale.

Support for the influence of social desirability on self-reported cultural competence has been mixed. Many studies have found significant positive correlations between these two variable (e.g., Constantine & Ladany, 2000; Granello & Wheaton, 1998; Worthington et al., 2000), while others have not (e.g., Chao, 2005; Lippy, 2007). Although studies have found that social desirability is associated with several popular self-report cultural competence measures (e.g., MAKSS, MCKAS, CCCI-R), there seems to be some consistent evidence for the particular influence of social desirability on the Multicultural Counseling Inventory (MCI; Sadowsky et al., 1994) (e.g., Constantine & Ladany, 2000; Granello & Wheaton, 1998; Worthington et al., 2000).

Another important point to consider is the face validity of most of these self-report cultural competence measures. Although face validity is normally a desired trait of self-report measures, in this case, items whose content and implications are clear make it easier for respondents to potentially over-report their true knowledge, awareness, and skill levels. The presumed high intelligence of our sample of experienced, graduate level mental health professionals may have resulted in over-reporting of cultural competence in this study. That is not to say that items should be written to obfuscate their meaning. On the contrary, self-report measures such as these should directly represent the latent variable of cultural competence. The trade-off, however, is increased vulnerability to

distorted responding. In addition, because of the necessity for informed consent before participation in most studies, respondents are given further insight into the purpose and potential implications of an assessment of their cultural competence (Lippy, 2007).

Given this information, self-report cultural competence measures should probably continue to be administered in conjunction with some measure of socially desirable responding. As Constantine and Ladany (2000) point out, the CCCI-R, MAKSS, and MCI in particular should be accompanied by a social desirability index. Because of its empirical development and its robustness against social desirability, the CBMCS represents an improvement in the line of multicultural competence self-report instruments.

After finding that the MCI did not significantly correlate with the Marlowe-Crowne Social Desirability Scale, Sadowsky et al. (2003) developed a more appropriate index of multicultural social desirable responding called the Multicultural Social Desirability Scale (MSDS). The MCSDS consists of 26 true/false items designed to measure “a preference to make a good impression on others by self-reporting that one is very responsive in all personal and social interactions with minorities and that one always favors institutional policies for diversity...such extreme affinity for minority concerns is not realistic in the context of U.S. racial relations” (Sadowsky et al., 1998, p. 258). Sadowsky et al. (1998) found that the MSDS was relatively independent of the Marlowe-Crowne scale, suggesting that this new scale reflects a different aspect of socially desirable responding. Although this scale appears to be a more appropriate social desirable index for use with self-report measures, only two studies using the measure

could be found in the literature (e.g., Sadowsky et al., 1998; Sheu & Lent, 2007). Future studies using self-reported cultural competence should consider using the MSDS.

Strategies to protect against socially desirable responding. However, there are other methodological strategies for guarding against the effects of socially desirable responding. One strategy is to use anonymous assessments such as was done in this study, or to make efforts to guarantee respondents' confidentiality (Lippy, 2007). This strategy may allow participants to respond more openly and honestly regarding their true attitudes without fear or shame that others may find out about their hidden attitudes. Of course if a respondent truly believes she is culturally competent and is prideful of this competence, anonymity may not guard against this person's potential to over-report their cultural competence. Perhaps a better strategy is to simply account/control for socially desirable responding through the use of statistical analyses such as multiple regression or Analysis of Covariance (ANCOVA). Although social desirability had little effect on our study results, we still decided to include it as a predictor in the analyses of our main hypotheses.

Still another strategy is to assess cultural competence using a variety of methods (i.e., multimodal assessment). Due to respondent time constraints in our study, we only included a single self-report measure of cultural competence. Only two studies have used both self-report and objective observer ratings of providers' cultural competence. Constantine (2001a) found that there was no relationship between patient ratings of cultural competence (using the CCCI-R; LaFromboise et al., 1994) and provider's self-perceived levels of cultural competence (using the MCI; Sadowsky et al., 1996) in a group of 52 graduate level counselors. Worthington and colleagues (2000) found the

same results in a similar study using the same two measures in a sample of 55 counselors. These two convergent findings are important because they appear to indicate that these two scales, which are both designed to measure cultural competence, may, in fact, be measuring two separate constructs (Worthington et al., 2000). An alternative explanation is that the two scales are measuring two separate, non-overlapping aspects of cultural competence. Both of these hypotheses have important implications to the theoretical literature of cultural competence. Worthington and colleagues (2000) conclude that self-report cultural competence measures are more likely measuring respondents' cultural competence self-efficacy (i.e., their belief in their ability to produce desired actions or outcomes; Bandura, 1997). Ottavi and colleagues (1994) offered a similar conclusion that self-report measures may more likely represent anticipated, rather than actual, behaviors and attitudes. In fact, Sheu and Lent (2007) recently developed such a measure, called the Multicultural Counseling Self-Efficacy Scale-Racial Diversity Form (MCSE-RD). Although the preliminary psychometrics of this new instrument appear adequate, the instrument needs further validation.

Another strategy to triangulate on the assessment of cultural competence is to include specific patient outcome variables related to receiving culturally competent care, such as patient satisfaction, increased well being, and therapeutic attrition. Unfortunately, very few of these types of studies exist (Smith et al., 2006).

Inherent provider biases. Given the sensitive nature of cultural competence and its natural association to topics of cultural sensitivity, racism, and discrimination, it is not surprising that providers would want to appear culturally competent, or at the very least, would not want to appear overtly biased and/or racially prejudiced (Lippy, 2007). It is

generally accepted that most individuals, including health care providers and those with the most egalitarian beliefs, hold certain racial biases and stereotypes. Despite an absence of clear evidence in this study, it is likely that our experienced sample of mental health professionals over-reported their true level cultural competence, which is likely related to their inherent beliefs and a desire to appear non-biased.

However, Green and colleagues (2007) were the first to document the effect of physician implicit (i.e., outside of conscious awareness) bias on health care outcomes. Not surprisingly, most physicians in the study did not admit to any explicit racial biases. However, using an Implicit Association Test (IAT) measuring the association between race (Caucasian or African American) and judgmental attitudes (good or bad), the authors found that physicians consistently attributed more negative attributes (e.g., bad and uncooperative) to African American than to Caucasian patients. In addition, as the providers' implicit negative attitudes toward African Americans increased, the less likely they were to recommend thrombolysis treatment (i.e., an empirically supported intervention for suspected myocardial infarction, regardless of patient race/ethnicity). This study is important because it is the first to document a link between unconscious provider racial bias and racial disparities in health care. Although this study was of physician bias, it is highly likely that the same implicit racial biases affect the care received by mental health providers.

The implication of Green and colleagues' work is that implicit bias is a real phenomenon that does affect care. Therefore, it would appear from an applied standpoint, future cultural competence training should take these factors into account. Recently, Burgess et al. (2007) outlined an insightful recommendation for integrating

racial bias awareness into cultural competence training. The authors discuss a comprehensive training program designed to increase providers' motivation to reduce bias, to increase knowledge about the psychological basis of bias (i.e., normalize inherent bias), and to increase provider skills with regard to inhibiting bias once it is recognized through the social-cognitive psychology principle of individuation (i.e., focusing on the individual attributes of a patient opposed to their similarities to group member stereotypes). The authors therefore provide a training framework for future use in reducing implicit provider bias using empirically supported psychological principles.

Color-Blind Racial Attitudes

Another implication of our study was the strength of provider color-blind racial attitudes as a negative predictor of their self-reported cultural competence. Color-blind racial attitudes (measured with the Color-Blind Racial Attitudes Scale; COBRAS, Neville et al., 2000) demonstrated the largest effect size of all the cultural competence predictors in our study. This finding is consistent with the few published studies of the relationship between color-blind attitudes and cultural competence (e.g., Chao, 2005; Neville et al., 2006). These effect sizes have been larger than other more researched predictors including cultural competence training, cross-cultural clinical/immersion experiences, provider ethnicity, multicultural case conceptualization ability, and social desirability. These results seem to imply that color-blind attitudes are an important component of cultural competence and that more research attention should be focused on this area rather than on correlates that have now shown consistent efficacy, such as cultural competence training and cross-cultural clinical experience.

Because racial color-blindness has only recently begun to be studied (Neville et al., 2006), theoretical interpretations on the relationship between these attitudes and cultural competence are tentative. The essence of color-blind racial attitudes is an awareness of the role that race plays from an institutional, social, and psychological point of view. The less color-blind individuals are, the more aware they appear to be of the effects of racism. In other words, those who have transcended color-blind racial ideology appear to understand the reality of the continued existence of racism in our society and have learned how it truly feels to be a person of color in the context of this continued reality. Perhaps it is this special insight and empathy that allow providers to be attuned to and respond to the cultural nuances of ethnic minority patients (i.e., to be more culturally competent).

There is some evidence of the deleterious effects of providers utilizing color-blind ideology. For example, in an analogue study Thompson and Jenal (1994) found that counselors who avoided talking about salient race issues with an African American client experienced an exasperated type of interaction and an eventual breakdown in communication, with the patient eventually capitulating and joining their counselor in avoiding discussion of race-relevant issues. Potential consequences of this style of interaction could include decreased therapeutic alliance, delayed symptoms improvement, or early termination. Burkard and Knox (2004) found similar results in a sample of 247 psychologists. The authors found that therapists high in color-blind attitudes rated themselves as less empathetic towards others regardless of client race. Burkard and Knox (2004) speculate that racially color-blind providers may be less likely to respond to racial issues and to important race issues with patients during counseling or therapy sessions.

Applied Implications

The active duty mental health providers in this study reported relatively little training in cultural competence. Despite this limitation, on average, they reported higher levels of cultural competence than their civilian counterparts (i.e., normative sample), and appeared to be mostly honest in their self-reports (i.e., social desirability). Although this finding appears to imply that active duty mental health providers, overall, are doing well with regard to cultural competence, care should be taken before making this conclusion. First, the question remains of how this respondent sample could report such overall high levels of cultural competence despite very little overall cultural competence training. Second, the fact that the respondents' cultural competence levels reflect self-report means that their actual levels of cultural competence may differ from what they perceive.

To truly test the extent of military mental health providers' multicultural competence, additional studies should be conducted with this population using more sophisticated methodology. In addition, although the study respondents scored higher than the normative sample, to definitively determine if they are more culturally competent than their civilian counterparts requires an empirical study using samples from both groups. One of our original study ideas was to conduct such a comparison. However, we were limited from answering this research question by time and financial constraints.

Another important applied implication of our study results relates to the efficacy of cultural competence training. Despite our sample having relatively little cultural competence training, their training still demonstrated a strong positive effect on providers' cultural competence. These results are consistent with the cultural competence

literature. In their recent meta-analysis examining the overall effects of cultural competence training Smith and colleagues (2006) found that the evidence for the efficacy of cultural competence is so strong that they concluded “the benefit of conducting even one more retrospective survey of multicultural education seems negligible (p. 140).” It would appear that the authors are correct in this statement. However, we would argue that, although our study falls into this category of being another retrospective survey, our study was important because it extended the literature by determining if these phenomena generalized to a military population. Although military demographics generally reflect the general U.S. population, it is not always the case. As previously mentioned, the military is much more racially diverse. With respect to military health care providers, there are often additional training, qualification, and accreditation requirements. Therefore, there was no reason to assume that our knowledge of cultural competence would generalize to a military population, which necessitated this study being conducted.

Given that cultural competence training has been consistently shown to increase cultural competence (Smith et al., 2006), an important policy implication is the importance of cultural competency training. Although our findings seem to indicate that military mental health providers are culturally competent, significant provider differences in cultural competence training point to the need for targeted training. Although our initial analyses showed that psychologists appeared to be more culturally competent than psychiatrists, this effect was attenuated when psychologists’ additional training was taken into account. Efforts to increase the cultural competence training of military physicians (which includes psychiatrists) have already begun at the Uniformed Services University. Researchers and clinicians at this prestigious military graduate medical education

institution have implemented a phased training program designed to introduce military medical students to the concepts of cultural competence, as well as expose them to knowledge related to racial health care disparities and teach them strategies for increasing their cultural competence. A recent study by these trainers (Carter et al., 2006) showed that even a brief small-group cultural competence workshop was effective in increasing the cultural competence awareness of these future physicians.

Furthermore, an overwhelming majority (89%) of the active duty mental health providers in this study reported having at least “some” interest in additional cultural competence training. These providers expressed the most interest in more experiential learning modalities including case-based learning, small group discussion, and cultural immersion experiences. Based on this feedback, future training efforts should consider training incorporating these particular modalities. In addition, we also found that the majority of providers in the study felt that cultural competent was from “very” to “extremely/vitally” important to their practice as an active duty provider. This finding is also telling and speaks to the importance of continuing to explore cultural competence in military populations.

The fact that these two single items assessing providers’ attitudes on the importance of cultural competence and their interest in additional training were highly related to providers’ self-reported cultural competence awareness also may have applied implications. The single item questions could be used to obtain a general estimate of provider’s self-perceived cultural competence. Because time is always a constraint in sampling busy professionals, these questions would be simple and brief. Admittedly, these questions would need further evaluation with other samples before utilizing them in

such a manner. Given the complexity of the construct of cultural competence and the relative infancy of research on the topic, extreme caution would be warranted to prevent these single items from being used to determine dichotomous decisions of whether a provider was cultural competent or not.

Our study did not show differences in cultural competence between ethnic minority and Caucasian providers. Although these results are inconsistent with the research, it should be noted that our study was severely underpowered to detect this difference. Research has consistently shown that ethnic minority providers report more (Acosta, 1995; Bellini, 2002; Holcomb-McCoy & Myers, 1999; Sadowsky et al., 1998; Whitehead, 2004) and are rated as having (Constantine, 2001a) more cultural competence than Caucasian providers. Therefore, the military should continue to recruit, retain, and promote ethnic minority physicians and other staff. Recently, the Surgeon General of the Navy, Vice Admiral Adam M. Robinson, Jr., demonstrated his commitment to diversity in Navy Medicine by creating a new Diversity Council within the Bureau of Medicine and Surgery to spearhead efforts to accomplish diversity goals. In a written statement, the Surgeon General proclaimed “Navy Medicine’s effort to develop a more diverse workforce is not new. What is new is the expanded, strategic approach to diversity as a force multiplier and mission enhancer, and our commitment to implement this vision throughout the Navy Medicine enterprise. To that end, all barriers to equality of opportunity must be eliminated, and we must make sure appropriate effort is made to recruit, retain and progress employees from all different backgrounds” (Bureau of Medicine & Surgery, 2008, p. 1).

Additionally, our results showed that the more providers encounter ethnic minorities in practice, the more cultural competent they perceive themselves to be. Again this finding is consistent with the published literature (e.g., Allison et al., 1996; Bellini, 2002; Diaz-Lazaro & Cohen, 2001; Salzman, 2000). Because most of the literature has used correlational study designs, it is unclear whether providers are more culturally competent as a result of their exposure, or whether providers who are already highly culturally competent seek out cross-cultural experiences. This is an empirical question that has yet to be studied.

From an intuitive standpoint, it makes sense that increased exposure to ethnic minority patients would lead to increased competence with working with that group. Allison and colleagues (1996) found that this was indeed the case. In their study psychologists who treated certain ethnic groups generally perceived themselves to be competent with that group. What is less known in the literature are the mechanisms for how exposure and immersion lead to cultural competence. Some researchers such as Wittig and Thompson (1998) have turned to Social Psychology principles such as Allport's (1979) Contact Hypothesis to explain conditions leading to decreased racial bias. There also is little knowledge on whether there are differential effects from differing forms of exposure/immersion. Most of the research studies have combined cross-cultural experiences and have included a variety of experiences such as multicultural caseload, number of contact hours with patients of color, and cultural immersion training experiences.

Nonetheless, the fact that military mental health providers will likely continue to see their exposure to racial/ethnic minorities increase, should further enhance their cultural competence, and benefit military medicine as a whole.

Summary and Final Conclusions

Because of the growing ethnic diversity in the U.S., there has been an exponential increase in research and interest in the cultural competence of health care providers. The U.S. military is even more diverse. Despite the increasingly diverse patient population and increased diversity of practice environments of military providers, little is known about the cultural competence of military mental health providers. This study provided baseline information documenting that military psychologists, psychiatrists, and social workers self-report relatively high overall levels of cultural competence. This study also extended the cultural competence literature by documenting the large effect that cultural competence training has on increasing provider cultural competence. This study also found that prior experience treating ethnic minority patients was related to increased cultural competence. Although these findings are not particularly profound, they are important because these cultural competence predictors are modifiable, meaning that there are opportunities for providers to increase their competence. We also found that color-blind racial attitudes were more related to cultural competence than training and prior experience. Very few studies have documented the importance of provider color-blind racial ideology to cultural competence.

These findings would appear to indicate that military mental health providers are in a good position to meet the challenges of their increasingly diverse patient population. However, a limitation of this survey study was that these cultural competence levels were

based upon self-report, which can be vulnerable to over inflated responding due to social desirability. In addition, as this research and prior research shows, providers can benefit from a variety of training and cross-cultural experiences. Military mental health providers should continue to seek out these opportunities, and military policies should support these types of opportunities. In addition, this study represents a first step that should be followed by additional studies within this population. Similar to the cultural competence field in general, there is still much that we do not know about cultural competence in military mental health providers. The ultimate goal of increasing provider cultural competence is to reduce racial health care disparities, increase patient satisfaction, and increase quality of care. However lofty these goals may seem, they are nonetheless important to improving the quality of military medicine, which is an especially critical goal in this time of global war on terrorism.

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APPENDIX A

Proposal to various mental health organizations requesting permission to solicit volunteers via their list serve

Request:

Permission to send an email announcement using your organization's listserv inviting participation in a study to assess multicultural competence in military mental health providers.

The Need for Studying Cultural Competence in Military Medicine:

- Ethnic minorities currently account for approximately 36% of the total active duty Department of Defense (DoD) force, a higher percentage than the 29% of ethnic minorities in the total U.S. population.
- With this increase in ethnic minorities and with increasing military operations in diverse locations and regions, the ability of military health care providers to recognize important cultural differences and to meet the needs of their increasingly diverse patient population is critical to the quality and readiness of military medicine.
- To effectively meet the health care needs of minorities, it has become clear that health care professionals must be “culturally competent”, i.e, prepared with the knowledge, skills, and attitudes to work effectively in cross-cultural situations.
- To date, cultural competence has never been empirically assessed in practicing military mental health providers.

The Benefits of Culturally Competent Providers:

- **Better health outcomes.** Skills that enhance providers' ability to recognize different cultural values, beliefs, and practices and to address these factors in interventions are likely to lead to more successful treatment outcomes.
- **More satisfied patients.** Improved patient-provider communication, an important component of cultural competency, has been shown to increase patient satisfaction.
- **Lower costs.** The U.S. Department of Health and Human Services has identified the following ways that cultural competency may reduce the cost of care:
 - It allows the provider to obtain more specific and complete information to make a more appropriate diagnosis.
 - It facilitates the development of treatment plans that are followed by the patient and supported by the family.
 - It reduces delays in seeking care and allows for timelier and more appropriate use of health services (i.e., primary prevention).
 - It enhances overall communication and the clinical interaction between provider and patient.
 - It enhances the compatibility between Western health practices and traditional cultural health practices.

Research Purpose:

The purpose of this project is to:

- (1) conduct the first ever assessment of cultural competency in practicing military mental health providers.
- (2) determine if modifiable (e.g., amount of previous cultural competency training and experience with ethnic minority patients) and non-modifiable (e.g., age, gender, ethnicity) variables predict cultural competence in military mental health providers.

Research Procedure:

- Interested participants will complete three brief self-report questionnaires via a secure Internet website hosted by USU.
- This project has been approved by the USU Human Subjects Institutional Review Board.

Protection of Participant Confidentiality:

- The survey is completely anonymous - no identifying information will be collected.
- Completed survey information will be automatically encrypted before transmission to the main server located at USU.

Cost & Time Commitment:

There will be no costs involved for your organization or for research volunteers in this study. The online survey will take each volunteer approximately 15 – 20 minutes to complete.

Principal Investigator:

Any questions about the specifics of the research protocol or this request should be directed to the principal investigator via the below contact information:

Robert D. Lippy, M.S.
LT/MSc/USN

Department of Medical & Clinical Psychology
Uniformed Services University of the Health Sciences
4301 Jones Bridge Rd
Bethesda, Maryland 20814-4799
301-295-8269 (office)
240-543-9351 (cell)
rlippy@usuhs.mil

APPENDIX B

Recruitment e-mail announcement to potential study participants

Would you like to find out how competent you are in caring for multicultural clients?

You are being invited to participate in an online research study about providing care to ethnically diverse clients (i.e., cultural competency). Your participation in this study is important because as a military mental health practitioner your clinical and educational experiences will provide critical knowledge about this important topic in our increasingly diverse military. The purpose of this study is to learn about predictors of cultural competency, such as formal training and experience working with ethnic minority clients. This Internet-based study consists of 3 brief questionnaires that should take you about 10 minutes to complete. It is completely anonymous (no personally identifying information will be collected). The survey can be accessed at the following link:
<http://cim01.usuhs.mil/culturalcompetency/>.

In exchange for your generous participation, you will be provided with your overall cultural competency score and how it compares with others who have completed the questionnaire. You also will be provided with a list of resources (including a CME) for learning more about cultural competency and enhancing your skills with diverse clients.

This IRB-approved study is sponsored by the Uniformed Services University of the Health Sciences (USU) and the Uniformed Services University Center for Health Disparities (USUCHD) and has been endorsed by APA Division 19 (Society for Military Psychology). Please feel free to contact the principal investigator if you have any questions: LT Robert Lipsey, USN (240-543-9351, rlipsey@usuhs.mil).

We know your time is valuable, so thank you in advance for participating in this important project!

APPENDIX C

Website Conditional Feedback Based on Final Participant Cultural Competence Score

Thank you very much for taking the time to complete this assessment. We appreciate your valuable time. Your participation will strengthen our knowledge of cultural competency in the military, which may ultimately improve patient care.

Your total cultural competence score was between 21-41 (out of a possible 84 points). You scored in the 2–10 percentile range among other mental health providers who completed this questionnaire.

Your honest answers indicate that you could benefit from additional information and training on cultural competence. It is also important to remember that cultural competence is an ongoing process and that it is possible to improve your cultural competence.

We have provided several resources for you to learn more about mental health care in various ethnic groups and ways to improve your cultural competence with these groups. To access these resources, click on the link below (you may have to copy and paste the link into your browser).

<http://cim.usuhs.mil/research/rlippy/feedback.html>

Thank you very much for taking the time to complete this assessment. We appreciate your valuable time. Your participation will strengthen our knowledge of cultural competency in the military, which may ultimately improve patient care.

Your total cultural competence score was between 61-62 (out of a possible 84 points). You scored in the 61-70 percentile range among other mental health providers who completed this questionnaire.

Congratulations! Your answers indicate that, relative to your peers, you are on your way towards becoming culturally competent. However, it is important to realize that cultural competence is a process and not an end state. Everyone has room to enhance their knowledge, skills, and awareness with regard to providing care to culturally diverse groups.

For this reason, we have provided several resources for you to learn more about mental health care in various ethnic groups and ways to improve your cultural competence with these groups. To access these resources, click on the link below (you may have to copy and paste the link into your browser).

<http://cim.usuhs.mil/research/rlippy/feedback.html>

Thank you very much for taking the time to complete this assessment. We appreciate your valuable time. Your participation will strengthen our knowledge of cultural competency in the military, which may ultimately improve patient care.

Your total cultural competence score was between 70-73 (out of a possible 84 points). You scored in the 91-95 percentile range among other mental health providers who completed this questionnaire.

Congratulations! Your answers indicate that, relative to your peers, you are likely to be highly culturally competent. However, it is important to realize that cultural competence is a process and not an end state. In addition, you can be culturally competent in one setting or with one cultural group and not as competent in a different setting or with a different group. Everyone has room to enhance their knowledge, skills, and awareness with regard to providing care to culturally diverse groups.

For this reason, we have provided several resources for you to learn more about mental health care in various ethnic groups and ways to improve your cultural competence with these groups. To access these resources, click on the link below (you may have to copy and paste the link into your browser).

<http://cim.usuhs.mil/research/rlippy/feedback.html>

APPENDIX D

Website List of Cultural Competence Resources

CONTINUING MEDICAL EDUCATION:

A Physician's Practical Guide to Culturally Competent Care. U.S. DHHS, Office of Minority Health. (A CME activity for psychiatrists to earn 9 free CME credits while exploring engaging case examples and learning about cultural competency in health care). <https://cccm.thinkculturalhealth.org/>

GENERAL SUGGESTIONS FOR ENHANCING CULTURAL COMPETENCE (Arrendondo et al., 1996):

- Seek out and attend conferences and workshops on diversity, cultural competence, and treatment strategies with culturally diverse groups.
- Enroll in ethnic studies courses at local community colleges or universities that focus on culturally diverse groups.
- Engage a mentor from your own cultural group who you identify as someone who has made significant strides toward becoming culturally competent.
- Engage a mentor(s) from other cultural groups who are willing to provide honest feedback regarding your behavior, attitudes, and beliefs. Be willing to listen and work toward change.
- Spend time in communities different from your own.
- Read newspapers and other periodicals targeting different cultural groups.
- Watch videos/films on the impact of race (e.g., “The Color of Fear” by Lee Mun Wah, “A Class Divided” Jane Elliott’s social experiment with children produced by PBS for “Frontline”)
- Read materials regarding racial identity development. For example, a Caucasian provider may read materials on White Identity Development (e.g., Helms, J. (1990). *White Identity Development*. New York: Greenwood Press) or an African American may read materials on Black Identity Development. Researchers have found that racial identity development is related to cultural competence.

RESOURCES:

Color Blind: Seeing Beyond Race in a Race-Obsessed World. Cose, E. Publisher 1998. See <http://www.amazon.com/>

The Compelling Need for Cultural and Linguistic Competence. National Center for Cultural Competence. (This document discusses several important reasons for and implications of cultural competence in mental health care). <http://www11.georgetown.edu/research/gucchd/nccc/foundations/need.html>

Find a consultant. National Center for Cultural Competence. (This service provided by the NCCC, allows you to search their prior-screened pool of consultants with expertise in cultural and linguistic competence in a broad range of health, mental health, education, and human service areas).

<http://www11.georgetown.edu/research/gucchd/nccc/consultants/index.html>

Cultural Competence Basics. National Center for Cultural Competence. (This webpage provides a list of basic minimum requirements for becoming culturally competent).

<http://www11.georgetown.edu/research/gucchd/nccc/information/providers.html>

ETHNIC: A Framework for Culturally Competent Ethical Practice. (This document provides a summary of a brief, but useful, mnemonic that can be used in providing clinical care with any ethnic minority patient). Levin, S.J., Like, R.C., Gottlieb, and J.E. 2000. *Patient Care* 34 (9), 188-189.

Mental Health, Culture, Race, and Ethnicity. A Supplement to Mental Health: A Report of the Surgeon General. U.S. Department of Health and Human Services, 2001. (This seminal report documents the existence of mental health disparities between ethnic minority groups and Caucasians in the U.S.).

<http://www.surgeongeneral.gov/library/mentalhealth/cre/>

Mental Health fact sheets/resources on:

African Americans (<http://www.healthyminds.org/bhm08.cfm>)

Asian American/Pacific Islanders (<http://www.healthyminds.org/aapiamonth07.cfm>)

Native Americans (<http://www.healthyminds.org/naian07.cfm>)

Latinos (<http://www.healthyminds.org/hispanicmh.cfm>)

American Psychiatric Association, Office of Minority and National Affairs. (Links to web pages that provide additional information on mental health and treatment issues with each respective patient population)

National Alliance of Multi-Ethnic Behavioral Health Associations. (This webpage represents four racial/ethnic behavioral health associations including: Native Americans, Asian Americans, Latinos, and African Americans. It provides links to the homepages of these four associations, which provide further information for working with patients from these ethnic minority groups.). <http://www.nambha.org/>

Selected Books on Cultural Competence and Mental Health Care. American Psychiatric Association. (This webpage provides a list and summary of content of books on how to provide culturally competent psychiatric care to ethnic minorities).

<http://www.psych.org/Resources/OMNA/apaculturalpublications.aspx>

Self-Assessment Checklist for Personnel Providing Behavioral Health Services and Supports to Children, Youth and their Families. National Center for Cultural Competence. (This checklist provides concrete examples of the kinds of values and practices that foster an environment of cultural diversity and cultural competence in a human service setting).

<http://www11.georgetown.edu/research/gucchd/nccc/documents/ChecklistBehavioralHealth.pdf>

Sue, D.W. & Sue, D. (2003). Counseling the culturally diverse: Theory and Practice (4th ed.). New York: John Wiley & Sons. (Excellent source book – provides detailed information on cultural competence, racial identity development and counseling various cultural groups).

Ten Things You Can Do to Eliminate Ethnic and Racial Disparities in Mental Health.

American Psychiatric Association, Office of Minority and National Affairs. (Very useful list of personal strategies for providing culturally competent care with the ultimate goal of reducing health disparities).

<http://www.psych.org/Resources/OMNA/10ThingsYouCanDo.aspx>

U.S. Census Bureau, State and County Quick Facts.

<http://www.quickfacts.census.gov/qfd/> (Provides information on the population statistics of each state).

APPENDIX E

Informed Consent Document

Informed Consent Form for Participation in a Research Study

Title of Project: A Self-Assessment of Cultural Competence in Military
Mental Health Providers
Principal Investigator: Robert D. Lippy, M.S.
Faculty Sponsor: David S. Krantz, Ph.D.

TO INDIVIDUALS WHO AGREE TO PARTICIPATE IN THIS STUDY:

The following information is provided to inform you about the research project and your participation in it. Please read this form carefully.

It is important that you understand your participation in this study is totally voluntary.
You may refuse to participate or choose to withdraw from this study at any time.

If you should have any questions about the study or your participation in the study, you may contact:

Robert D. Lippy, M.S.
(240) 543-9351
Department of Medical and Clinical Psychology
Uniformed Services University of the Health Sciences
Bethesda, MD 20814-4799

1. THE PURPOSE OF THIS STUDY

The United States is becoming increasingly ethnically diverse. Ethnic minorities currently account for approximately 29% of the total U.S. population. The military is even more diverse with approximately 36% of our active duty forces consisting of ethnic minorities. The percentage of active duty ethnic minorities has risen by over 7% since 1990, paralleling the upward trend in the U.S. civilian population.

With this increase in ethnic minorities and with increased deployments of our uniformed providers to ethnically and geographically diverse regions, the ability of military health care providers to recognize important cultural differences in our diverse patient populations is critical to the quality and readiness of military medicine. In order to effectively meet the health care needs of minorities, it has become clear that health care professionals must be “culturally competent”, i.e, prepared with the knowledge, skills, and attitudes to work effectively in cross-cultural situations. In addition, improving the cultural competence of health care providers has been identified as an important mechanism for improving the health outcomes of ethnic minority Americans, who have

consistently been found to receive less health care and suffer worse physical and mental health.

Despite the recognized need for and increase in cultural competency training, cultural competence has never been empirically assessed in practicing military health care providers. The purpose of this research project is to assess the current state of cultural competence among military mental health care providers and to determine if certain variables such as prior cultural competence training and prior experience working with ethnic minorities affect the cultural competence of mental health providers. Your experience as a military psychologist, psychiatrist or clinical social worker will help increase our knowledge of this important topic in military medicine. There are no exclusion criteria for this study, other than volunteers must be a minimum of 18 years old.

2. THE PROCEDURES TO BE FOLLOWED

If you decide to volunteer, you must first read and accept this consent by clicking on a button shown on the screen at the end of this form. Then, you will complete three brief questionnaires and a short section on your demographics (e.g., age, gender, ethnicity, branch of service, etc.). This should take you approximately 10-15 minutes to complete. These questionnaires will ask about your knowledge of certain cultural information (example: “health disparities experienced by different racial groups”), your skills (“prescribing/negotiating a culturally sensitive plan”), your comfort in different encounters/situations (“caring for a patient who insists on using or seeking folk healers or alternative therapies”), and your attitudes about others (“how important environment is as a factor contributing to health disparities”).

3. THIS STUDY IS BEING DONE SOLELY FOR THE PURPOSES OF RESEARCH.

4. DISCOMFORTS, INCONVENIENCES, AND/OR RISKS THAT CAN BE REASONABLY EXPECTED ARE:

The risks associated with this study are minor. You may find that some of the questionnaire items make you uncomfortable. You will NOT be forced to do anything you do not want to do. You can decline to answer any question that you do not want to answer. You may decline to participate at any time.

5. COMPENSATION / BENEFITS OF PARTICIPATION

Volunteers for this study will not receive any direct compensation. However, at the end of the assessment you will be given your total cultural competence score, how it compares with other mental health professionals who have completed the questionnaire, and a list of resources where you can learn more about cultural competence and how to enhance your cultural competency.

In addition, your participation will benefit the military health care system by potentially improving the health care of our diverse patient population due to improvements in our knowledge of provider cultural competency. Increasing provider cultural competency may also help reduce health disparities in the military health care system.

6. CONFIDENTIALITY: YOUR RIGHTS, WELFARE, AND PRIVACY WILL BE PROTECTED IN THE FOLLOWING MANNER:

All information you provide as part of this study will be confidential and will be protected to the fullest extent provided by law. Information that you provide and other records related to this study will only be accessible to those persons directly involved in conducting this study including the study investigators (Robert Lippy & Dr. Krantz) and members of the Uniformed Services University of the Health Sciences Institutional Review Board (IRB). IRBs provide oversight for the protection of human research volunteers.

Before your questionnaire data is electronically transmitted to the URL server located at the Uniformed Services University of the Health Sciences (USU), it will be protected through encryption (recoding) using a method that is equivalent to the industry standard for handling credit card information. This will ensure that any data intercepted during transmission cannot be decoded and individual responses cannot be traced back to you. Once research data is stored on the USU server, it will be held in an isolated database that can only be accessed by the study investigators with the correct username and password. We will be asking for some demographic information such as age, gender, ethnicity, branch of service, etc., but we will not be asking for any personally identifying information such as your name, date of birth, or any contact information.

7. YOU ARE FREE TO WITHDRAW THIS CONSENT AND TO STOP PARTICIPATING IN THIS STUDY AT ANY TIME FOR ANY REASON WITHOUT PREJUDICE OR PENALTY.

If you decide to end your participation in the study, your care and relations with the faculty, staff, and administration at your clinic / hospital / command will not be changed in any way. If you wish to stop participating in this questionnaire study at any time, you should simply exit the website.

8. RECOURSE IN THE EVENT OF INJURY:

This study should not entail any physical or mental risk beyond those described above. We do not expect complications to occur, but if, for any reason, you feel that continuing this study would constitute a hardship for you, we will end your participation in the study.

If at any time you believe you have suffered an injury or illness as a result of participating in this research project, you should contact the Office of Research at the Uniformed Services University of the Health Sciences (USU), Bethesda, Maryland at

(301) 295-3303. This office can review the matter with you, can provide information about your rights as a subject, and may be able to identify resources available to you. Information about judicial avenues of compensation is available from the General Counsel at USU, (301) 295-3028.

9. QUESTIONS

If you have any questions about this research study, you should contact Robert Lippy at 240-543-9351. If you have any questions about your rights as a research participant, you should call the Director of Research Programs in the Office of Research at the Uniformed Services University of the Health Sciences at (301) 295-3303. This individual is your representative and has no connection to the people conducting the study.

10. CONSENT

If you have read and understand the above statements, please click on the 'next' button below to indicate your consent to participate in this study. If you do not wish to continue with this study, please exit this website, and we thank you for your time.

NEXT

APPENDIX F

California Brief Multicultural Competence Scale (CBMCS)

Below is a list of statements dealing with multicultural issues within a mental health context. Please indicate the degree to which you agree with statement by circling the appropriate number.

1	2	3	4
<i>Strongly</i>	<i>Disagree</i>	<i>Agree</i>	<i>Strongly</i>
<i>Disagree</i>			<i>Agree</i>

___ 1. I am aware that being born a minority in this society brings with it certain challenges that White people do not have to face.

___ 2. I am aware of how my own values might affect my client.

___ 3. I have an excellent ability to assess, accurately, the mental health needs of persons with disabilities.

___ 4. I am aware of institutional barriers that affect the client.

___ 5. I have an excellent ability to assess, accurately, the mental health needs of lesbians.

___ 6. I have an excellent ability to assess, accurately, the mental health needs of older adults.

___ 7. I have an excellent ability to identify the strengths and weaknesses of psychological tests in terms of their use with persons from different cultural, racial and/or ethnic backgrounds.

___ 8. I am aware that mental health providers frequently impose their own cultural values upon minority clients.

___ 9. My communication skills are appropriate for my clients.

___ 10. I am aware that being born a White person in this society carries with it certain advantages.

___ 11. I am aware of how my cultural background and experiences have influenced my attitudes about psychological processes.

___ 12. I have an excellent ability to critique multicultural research.

___ 13. I have an excellent ability to assess, accurately, the mental health needs of men.

CBMCS

___ 14. I am aware of institutional barriers that may inhibit minorities from using mental health services.

___ 15. I can discuss, within a group, the differences among ethnic groups (e.g., low socioeconomic status (SES), Puerto Rican client vs. high SES Puerto Rican client).

___ 16. I can identify my reactions that are based on stereotypical beliefs about different ethnic groups.

___ 17. I can discuss research regarding mental health issues and culturally different populations.

___ 18. I have an excellent ability to assess, accurately, the mental health needs of gay men.

___ 19. I am knowledgeable of acculturation models for various ethnic minority groups.

___ 20. I have an excellent ability to assess, accurately, the mental health needs of women.

___ 21. I have an excellent ability to assess, accurately, the mental health needs of persons who come from very poor socioeconomic backgrounds.

Gamst, G., Dana, R., Der-Karabetian, A., Aragon, M., Arellano, L., Morrow, G., and Martenson, L. (2004). Cultural competency revised: The California Brief Multicultural Competence Scale. *Measurement and Evaluation in Counseling and Development*, 37, 163-183.

APPENDIX G

Color-Blind Racial Attitudes Scale (COBRAS)

Directions. Below is a set of questions that deal with social issues in the United States (U.S.). Using the 6-point scale, please give your honest rating about the degree to which you personally agree or disagree with each statement. Please be as open and honest as you can; there are no right or wrong answers. Record your response to the left of each item.

1	2	3	4	5	6
Strongly					Strongly
Disagree					Agree

___ 1. Everyone who works hard, no matter what race they are, has an equal chance to become rich.

___ 2. Race plays a major role in the type of social services (such as type of health care or day care) that people receive in the U.S.

___ 3. It is important that people begin to think of themselves as American and not African American, Mexican American or Italian American.

___ 4. Due to racial discrimination, programs such as affirmative action are necessary to help create equality.

___ 5. Racism is a major problem in the U.S.

___ 6. Race is very important in determining who is successful and who is not.

___ 7. Racism may have been a problem in the past, but it is not an important problem today.

___ 8. Racial and ethnic minorities do not have the same opportunities as White people in the U.S.

___ 9. White people in the U.S. are discriminated against because of the color of their skin.

___ 10. Talking about racial issues causes unnecessary tension.

___ 11. It is important for political leaders to talk about racism to help work through or solve society's problems.

___ 12. White people in the U.S. have certain advantages because of the color of their skin.

COBRAS

___ 13. Immigrants should try to fit into the culture and adopt the values of the U.S.

___ 14. English should be the only official language in the U.S.

___ **15. White people are more to blame for racial discrimination in the U.S. than racial and ethnic minorities.**

___ 16. Social policies, such as affirmative action, discriminate unfairly against White people.

___ **17. It is important for public schools to teach about the history and contributions of racial and ethnic minorities.**

___ 18. Racial and ethnic minorities in the U.S. have certain advantages because of the color of their skin.

___ 19. Racial problems in the U.S. are rare, isolated situations.

___ **20. Race plays an important role in who gets sent to prison.**

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*** Items 2, 4, 5, 6, 8, 11, 12, 15, 17, and 20 are reverse-scored.**

APPENDIX H

Marlowe-Crowne Social Desirability Scale- Short Form (MC-10; Strahan & Gerbasi, 1972)

Personal Reaction Inventory

Listed below are a number of statement concerning personal attitudes and traits. Read each item and decide whether the statement is *true* or *false* as it pertains to you personally.

- T ___ F ___ 1. I like to gossip at times.
T ___ F ___ 2. There have been occasions when I took advantage of someone.
T ___ F ___ 3. I'm always willing to admit it when I make a mistake.
T ___ F ___ 4. I always try to practice what I preach.
T ___ F ___ 5. I sometimes try to get even rather than forgive and forget.
T ___ F ___ 6. I never resent being asked to return a favor.
T ___ F ___ 7. At times I have really insisted on having things my own way.
T ___ F ___ 8. I have never been irked when people expressed ideas very different from my own.
T ___ F ___ 9. I have never deliberately said something that hurt someone's feelings.
T ___ F ___ 10. There have been occasions when I felt like smashing things.

* Bold items are keyed items = 1 point each

* Minimum score = 0, Maximum score = 10; higher score means higher socially desirable responding

* Reliability: KR-20 ranges from .59 - .70 (Strahan & Gerbasi, 1972)

APPENDIX I

Self-awareness of biases and cultural competence limitations questions

1. There is much that I have to learn about cultural competency.

1	2	3	4	5	6
STRONGLY					STRONGLY
DISAGREE					AGREE

- 2. I find that I know a lot about the cultures of other racial/ethnic minority groups.**

1	2	3	4	5	6
STRONGLY					STRONGLY
DISAGREE					AGREE

3. I know less than I should about caring for racial/ethnic minority patients.

1	2	3	4	5	6
STRONGLY					STRONGLY
DISAGREE					AGREE

4. I am aware that I may have personal biases regarding racial/ethnic minorities.

1	2	3	4	5	6
STRONGLY					STRONGLY
DISAGREE					AGREE

- 5. I sincerely believe that I provide the same level/quality of care to my patients, regardless of their race/ethnicity.**

1	2	3	4	5	6
STRONGLY					STRONGLY
DISAGREE					AGREE

6. I have seen that my personal biases can affect the care that I give to racial/ethnic minorities.

1	2	3	4	5	6
STRONGLY					STRONGLY
DISAGREE					AGREE

7. I am aware of how cultural differences can influence my relationships with patients.

1	2	3	4	5	6
STRONGLY					STRONGLY
DISAGREE					AGREE

*** Items 2 and 5 are reverse-scored.**

APPENDIX J

Background and demographics questions

1. Age: _____
2. Sex: Male _____ Female _____
3. Race/Ethnicity:
 - _____ White
 - _____ Hispanic or Latino
 - _____ Black or African American
 - _____ Asian
 - _____ American Indian or Alaskan Native
 - _____ Native Hawaiian or Other Pacific Islander
 - _____ Two or more races
4. Where were you born? (State, or Country if born outside the U.S.) _____
5. Where was your father born? (State, or Country if born outside the U.S.) _____
6. Where was your mother born? (State, or Country if born outside the U.S.) _____
7. Branch of Service:
 - _____ Army
 - _____ Navy
 - _____ Marines
 - _____ Air Force
 - _____ Coast Guard
 - _____ U.S. Public Health Service
8. Provider type:
 - _____ Psychiatrist
 - _____ Psychologist
 - _____ Clinical Social Worker

9. Type of Degree: (you may check all that apply)

- ☐ Bachelor level
- ☐ DO
- ☐ EdD
- ☐ LCSW
- ☐ MD
- ☐ MPH
- ☐ MSW
- ☐ PhD
- ☐ PsyD
- ☐ Other

10. Total years of practice in the uniformed service (including practica, externship, internship or residency): ____ years (round to nearest whole year)

11. Total years of non-uniformed practice (including practica, externship, internship or residency): ____ years (round to nearest whole year)

12. How *much* required training (by training program, for licensure, etc.) have you had in cultural competency (i.e., training on acquiring the knowledge, awareness, or skills to communicate and work effectively in cross-cultural encounters)?

- ☐ None
- ☐ 1 – 3 hours
- ☐ 4 – 7 hours
- ☐ 8 – 10 hours
- ☐ 11- 16 hours (e.g., several lectures, seminars, workshops, etc.)
- ☐ 2 days – 1 week (e.g., brief course)
- ☐ 1 – 2 weeks
- ☐ 3 – 12 weeks (e.g., formal course in a quarter system)
- ☐ 13 – 20 weeks (e.g., formal course in a semester system)
- ☐ 21 or more weeks

13. How *much* elective training have you had in cultural competency (i.e., training that you chose on your own to participate in)?

- ☐ None
- ☐ 1 – 3 hours
- ☐ 4 – 7 hours
- ☐ 8 – 10 hours
- ☐ 11- 16 hours (e.g., several lectures, seminars, workshops, etc.)
- ☐ 2 days – 1 week (e.g., brief course)
- ☐ 1 – 2 weeks
- ☐ 3 – 12 weeks (e.g., formal course in a quarter system)
- ☐ 13 – 20 weeks (e.g., formal course in a semester system)
- ☐ 21 or more weeks

14. What *types* of formal training experiences in cultural competency have you had?
(check all that apply)

- ☐ None
- ☐ Small group discussion
- ☐ Cultural immersion experience
- ☐ Didactic (Lecture)
- ☐ Case-based learning
- ☐ Audio/visual
- ☐ Online/Internet (e.g., self-directed learning)
- ☐ Experiential learning (e.g., role-play)
- ☐ Standardized/Simulated patients

15. How much experience have you had *providing health care* to racial/ethnic minorities?

- ☐ **None**
- ☐ **Little** (e.g., racial/ethnic minorities account for less than 25% of all the patients you have seen)
- ☐ **Occasional** (e.g., racial/ethnic minorities account for approximately 26-50% of all the patients you have seen)
- ☐ **Frequent** (e.g., racial/ethnic minorities account for approximately 51-75% of all the patients you have seen)
- ☐ **Extensive** (e.g., racial/ethnic minorities account for approximately 76-100% of all the patients you have seen)

16. How much exposure/immersion (e.g., communicating, socializing, interacting, etc.) have you had with racial/ethnic minority *colleagues and coworkers*?

- ☐ **None**
- ☐ **Little** (e.g., racial/ethnic minorities account for less than 25% of all your professional interactions)
- ☐ **Occasional** (e.g., racial/ethnic minorities account for approximately 26-50% of all your professional interactions)
- ☐ **Frequent** (e.g., racial/ethnic minorities account for approximately 51-75% of all your professional interactions)
- ☐ **Extensive** (e.g., racial/ethnic minorities account for approximately 76-100% of all your professional interactions)

17. How much exposure/immersion (e.g., communicating, socializing, interacting, etc.) have you had with racial/ethnic minority *family, friends, or close acquaintances*?

- ☐ **None**
- ☐ **Little** (e.g., racial/ethnic minorities account for less than 25% of all your non-professional/personal interactions)
- ☐ **Occasional** (e.g., racial/ethnic minorities account for approximately 26-50% of all your non-professional/personal interactions)
- ☐ **Frequent** (e.g., racial/ethnic minorities account for approximately 51-75% of all your non-professional/personal interactions)
- ☐ **Extensive** (e.g., racial/ethnic minorities account for approximately 76-100% of all your non-professional/ personal interactions)

18. How many overseas deployments and/or overseas duty assignments have you been on where you interacted at least minimally with other cultural or ethnic groups? ____

19. What geographic regions have you deployed and/or been assigned to? (check all that apply)

- ☐ Middle East
- ☐ Western Europe
- ☐ Eastern Europe
- ☐ Southeast Asia
- ☐ Indonesia
- ☐ Africa
- ☐ South America
- ☐ Latin America
- ☐ Australia
- ☐ None

20. Considering all your overseas deployment/assignment experiences, what is the average length of time that you interacted on a regular basis with other cultural or ethnic groups?

- ☐ Less than 1 week
- ☐ 1 – 2 weeks
- ☐ 3- 4 weeks
- ☐ 5 weeks – 2 months
- ☐ 3 – 4 months
- ☐ 5 – 6 months
- ☐ 7 – 12 months
- ☐ Greater than 1 year

21. How interested are you in more cultural competence training?

- ☐ None
- ☐ A little
- ☐ Some
- ☐ Quite a bit
- ☐ A lot

22. Which types of cultural competency training would you find most helpful? (you may check more than one)

- ☐ Small group discussion
- ☐ Cultural immersion experience
- ☐ Didactic (Lecture)
- ☐ Case-based learning
- ☐ Audio/visual
- ☐ Online/Internet (e.g., self-directed learning)
- ☐ Experiential learning (e.g., role-play)
- ☐ Standardized/Simulated patients
- ☐ None

23. How important do you think cultural competence is to your practice as an active duty mental health provider?

- ☐ Not at all important
- ☐ Somewhat important
- ☐ Important
- ☐ Very important
- ☐ Extremely/vitally important

24. Please use this space to provide any additional information or feedback (optional).

APPENDIX K

USU Institutional Review Board Approval Letter



UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES
4301 JONES BRIDGE ROAD
BETHESDA, MARYLAND 20814-4735



December 11, 2007

MEMORANDUM FOR LT ROBERT D LIPPY, BS, MEDICAL AND CLINICAL PSYCHOLOGY

SUBJECT: Uniformed Services University Institutional Review Board Approval (DoD Assurance No. P60001 and FWA # 00001628) of Amendment to T072HQ

The amendment to your protocol T072HQ entitled, "*An Assessment of Cultural Competency in Military Healthcare Providers*," was reviewed and approved for execution on December 11, 2007 by Edmund G. Howe, M.D., J.D., Chairperson, Institutional Review Board, under the provisions of 32 CFR 219.101(b)(2). This approval will be reported to the full Uniformed Services University IRB scheduled to meet on January 10, 2008.

The main purpose of this project is to conduct an assessment of cultural competency in military healthcare providers through online questionnaires. Specific aims of this project are to: 1) conduct a baseline assessment of cultural competency levels of military healthcare providers; and 2) determine predictors of cultural competency in military healthcare providers. The two questionnaires are the Marlowe-Crown Social Desirability Scale and the Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals - Revised Questionnaire. This study has been completed and the PI has collected and analyzed pilot data on levels and predictors of cultural competency for 178 military primary care physicians (i.e., Family Medicine, Internal Medicine, and Pediatrics specialties). Although the results were statistically significant, they were in the opposite direction to what the PI hypothesized. The PI would like to extend the study to include military psychologists, psychiatrists, and clinical social workers for comparison with his pilot sample of military primary care physicians. The same recruitment methods and the same secure internet website will be used. Email will be sent to all members of this list serve with an introductory statement that contains all the required elements of an informed consent. All identifiers, including IP addresses, will be removed from responses. Waiver of signed informed consent is authorized under 32 CFR 219.117 (c)(2).

This action approves Amendment #2 to extend the study to include military psychologists, psychiatrists, and clinical social workers. The PI will also be authorized to add two new questionnaires to the study, the *California Brief Multicultural Competence Scale (CBMCS)* and the *Color-Blind Racial Attitudes Scale (CoBRAS)*.

You are required to submit amendments to this protocol, changes to the informed consent document (if applicable), adverse event reports, and other information pertinent to human research for this project to this office for review. No changes to this protocol may be implemented prior to IRB approval. If you have questions regarding specific issues on your protocol, or questions of a more general nature concerning human participation in research, please contact me at 301-295-0819/9534 or mpickerel@usuhs.mil.

cc: REA
Chair, MPS
File

Margaret Pickerel
Institutional Review Board Coordinator

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