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ABSTRACT

This paper reviews the literature on assessing elderly Hispanic Americans within the current neuropsychological context. The focus is on operationalizing multicultural competency through developing awareness, acquiring knowledge, and developing skills. In the realm of developing awareness, it is important to become aware of one's own limitations, biases, and values and those of the field. In the realm of acquiring knowledge, it is necessary to pursue specific cultural knowledge, training, and experience working with Hispanic elders. Even so, our knowledge of how cultural variables affect test performance is limited. In the realm of developing skills, it is important to recognize that intelligence may be characterized differently in different cultures. Commonly used assessment instruments may be inappropriate for use with Hispanic elders or may violate Hispanic values. Interpersonal cultural variables will influence the patient examiner relationship and test results as well. Interpreting scores within the patient's cultural and ecological context will likely lead to more accurate diagnoses and the most useful treatment plans. By looking for ways to build awareness, knowledge and skills in these an other ways, neuropsychologists can begin to develop multicultural competency for assessing elderly Hispanic Americans. (Contains 42 references.) (Author)

Running head: NEUROPSYCHOLOGICAL ASSESSMENT OF HISPANIC ELDERS

Neuropsychological Assessment of Hispanic American Elders:

Critical Literature Review

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Abstract

This paper reviews the literature on assessing elderly Hispanic Americans within the current neuropsychological context. The focus is on operationalizing multicultural competency through developing awareness, acquiring knowledge, and developing skills. In the realm of developing awareness, it is important to become aware of one's own limitations, biases, and values and those of the field. In the realm of acquiring knowledge, it is necessary to pursue specific cultural knowledge, training, and experience working with Hispanic elders. Even so, our knowledge of how cultural variables affect test performance is limited. In the realm of developing skills, it is important to recognize that intelligence may be characterized differently in different cultures. Commonly used assessment instruments may be inappropriate for use with Hispanic elders or may violate Hispanic values. Interpersonal cultural variables will influence the patient examiner relationship and test results as well. Interpreting scores within the patient's cultural and ecological context will likely lead to more accurate diagnoses and the most useful treatment plans. By looking for ways to build awareness, knowledge, and skills in these and other ways, neuropsychologists can begin to develop multicultural competency for assessing elderly Hispanic Americans.

Neuropsychological Assessment of Hispanic American Elders: Critical Literature Review

The Census of Population and Housing indicated that in the year 2000, there were over 35 million residents in the United States who identified themselves as Hispanic (United States Census Bureau, 2002), and Hispanics are projected to become the largest minority group in the near future, constituting one-fourth of the population by the year 2050 (Hough, Kolody, & Du Bois, 1993; Perez-Arce, 1999; Puente & Ardila, 2000; Vazquez & Clavijo, 1995). A sizable proportion of Hispanics in the U.S. are elderly (Centeno & Obler, 1996; Grant, 1995) and this number is increasing dramatically (Taussig, 2001). Furthermore, many elderly Hispanics do not speak English, and of those who do, most speak Spanish at home.

A brief review of the literature revealed that elderly Hispanic Americans face the same neuropsychological issues as do other Americans. Some researchers have found that rates of dementia among elderly Hispanics are similar to rates among elderly White Americans, with Mexican Americans displaying higher rates of mild impairment and lower rates of severe impairment (Hough et al., 1993). Others have noted that rate for dementia of the Alzheimer's type is lower for Hispanics than for White populations, while the rate of vascular dementia is either considerably higher or is comparable (Fitten, Ortiz, & Ponton, 2001; Taussig & Ponton, 1996; Yeo, Gallagher-Thompson, & Lieberman, 1996). Complicating research is that an atypical pattern of symptoms may be present (Grant, 1995). Also, major depression with complicating medical problems may be more common among elderly Hispanics than among elderly Whites and non-Hispanic minority groups (Fitten et al., 2001; Vazquez & Clavijo, 1995; Yeo et al., 1996). Additionally, there is a lack of information about race differences in neuropsychological functioning in persons with schizophrenia, and most research does not even report the racial

composition of samples (Lewine & Caudle, 1999). In all, there appears to be little systematic research into mental health issues affecting older Hispanics (Taussig, 2001; Yeo et al., 1996). Taussig pointed out some implications of low inclusion of Hispanic patients in dementia research programs. For example, elderly Hispanics tend to be diagnosed with Alzheimer's disease later in the disease process. While undiagnosed, these persons may be at greater risk of abuse, neglect, and abandonment by caregivers. Social negligence due to embarrassment further impacts patients' quality of life. There appears to be limited knowledge about dementia among many caregivers, and families may experience higher levels of anguish and confusion.

Although there are significant gaps in our knowledge regarding the epidemiology of neuropsychological symptoms among elderly Hispanic Americans, it is clear there is a great need for neuropsychological services for these populations. Yet there are less than a handful of appropriate assessment instruments and few multiculturally competent neuropsychologists to provide these services (Grant, 1995; Perez-Arce & Puente, 1996; Vazquez & Clavijo, 1995). The number of ethnic minorities enrolling in doctoral psychology programs in general, and specializing in neuropsychology in particular, is not enough to meet the needs of minorities in this country (Perez-Arce, 1999). Hence, there is a significant need at this time for non-Hispanic neuropsychologists to develop the appropriate expertise and to acquire the appropriate tools to provide services for elderly Hispanics.

This paper reviews the literature on neuropsychological assessment of elderly Hispanic Americans. Using PsycINFO, English-language publications were located that incorporated the keywords "elderly" and "Hispanic" or "minorities" along with "assessment" or "neuropsychological tests." The reference sections of pertinent chapters and articles found in this way were then perused to locate additional publications. In reviewing the literature, the focus

was on operationalizing multicultural competency using the framework proposed by Sue et al. (1998). No constraint was put on date of publication. I have chosen to use the term "Hispanic" throughout this paper because, as Ponton and Leon-Carrion (2001) pointed out, while the terms Hispanic and Latino are often used interchangeably, the term Hispanic is most often used in the context of demographics and health.

Becoming Multiculturally Competent – Developing Awareness

Sue and Sue (1999) noted that it is easier for non-minority clinicians to cope with the cognitive dimension of their own cultural heritage, including values and standards of normality, than it is to cope with the emotional impact of being part of a dominant and oppressive culture. Yet to be multiculturally competent, a clinician must work through his or her biases, feelings, fears, and guilt. In the dimension of awareness, Sue et al. (1998) noted that a multiculturally skilled psychologist is one who has moved from being culturally unaware to being aware of his or her own cultural heritage and valuing and respecting the differences between one's own and others' cultures. He or she will be aware of his or her own values and biases and how these might affect providing services to minority clients. He or she will be comfortable with the differences that exist between clinician and client because of culture and also is aware of situations in which it is best to refer because of one's own limited expertise or biases. Also, the multiculturally competent clinician must become aware of and acknowledge his or her own racist attitudes, beliefs, and feelings as a result of being socialized in a racist society and realize that he or she possesses qualities that may be detrimental to minority clients.

In the field of neuropsychology, a multiculturally competent psychologist will be aware of his or her own limitations as well as the limitations inherent in the current state of the field. In this respect, perhaps more than in any other area of psychology, neuropsychology operates

within a traditional White male arena (Puente & Ardila, 2000). For example, within the Clinical Neuropsychology Division of the American Psychological Association, membership is predominantly White and male, in considerably greater proportion than in other divisions. Neuropsychological training protocols, interviews and assessment instruments, interpretations, and research generally reflect the dominant culture and may be inappropriate for use with Hispanic American patients. Ponton (2001) pointed out some basic differences in Anglo-American and Hispanic cultural worldviews that may affect neuropsychological assessment. These include basic assumptions about the organization of the universe and one's place in it, natural and supernatural relationships, time, and success. These also include values relating to competition and cooperation, change, individualism and family, and decision-making.

From a theoretical perspective, current neuropsychological research generally searches to establish empirical, pragmatic models (Perez-Arce, 1999). Researchers look for universal elements in cognitive functioning, and a direct connection is drawn from the physical brain, to cognitive processes, to behavior. While neuropsychological assessment strategies consider the strengths and limits of testing and brain functioning, it appears that little has been done to take into account patients' biopsychosocial context (Perez-Arce & Puente, 1996). Henderson (1996) pointed out that many clinicians appear to perceive that their professionally derived knowledge is factual versus part of an evolving cultural and professional belief system. Thus assessment may be decontextualized, without a focus on how brain functioning relates to fundamental socioenvironmental variables (Perez-Arce, 1999). Since socioeconomic, cultural, lingual, and other factors have an effect on the way information is processed, multiculturally appropriate neuropsychological assessment must take these factors into account.

In addition, because of professional and personal cultural differences as well as a history of discrimination, it may be more difficult for a non-Hispanic clinician to establish a therapeutic working alliance with elderly Hispanic patients (Grant, 1995). These difficulties may be further exacerbated by differences in age, social class, and income. For these reasons, becoming cross-culturally competent with Hispanic American elders takes personal commitment and experience. Acquiring training and/or developing referral and consultation networks is a very important element in attaining multicultural competency. This is the case especially since there is considerable diversity among Hispanic populations in the U.S., and a single neuropsychologist may not achieve expertise with all subgroups. Here it is important to be aware of one's own limitations as well as the limitations of the field and to refer or consult accordingly.

Likely the most difficult task faced by a neuropsychologist who wants to develop a greater level of multicultural competency will be in the realm of personal exploration (Sue & Sue, 1999). This involves searching deep within oneself for values and biases that may conflict with appropriate patient care and exploring one's own cultural heritage in depth. In this regard, it may be especially useful to follow the lead of Patricia Perez-Arce and Marcel Ponton in pursuing competency assessing Hispanics through participation in a professional group dedicated to this purpose (Ponton & Ardila, 1999). Alternately, a non-Hispanic neuropsychologist can seek the aid of a Hispanic mentor (A. Lopez-Vasquez, personal communication, August 9, 2002). The goal is to examine issues relating to multiculturally competent services that is more than a mere intellectual exercise (Sue, 1993). Contact with Hispanics, including lay and professional multicultural experts, along with consultation with competent Hispanic neuropsychologists, can aid the clinician not only in confronting his or her own difficult emotions but in learning to look closely at patient cultures.

Becoming Multiculturally Competent – Acquiring Knowledge

In their framework for developing multicultural competency, Sue et al. (1998) pointed out that it is important to see and accept other world views in a nonjudgmental manner and to acquire practical knowledge about the client's cultural background, daily living experience, hopes, fears, and aspirations. This involves acquiring specific knowledge of the cultural group to which one's patients belong as well as a good understanding of the role the U.S. sociopolitical system has played with respect to treatment of minorities. It involves understanding the assumptions of the field of psychology, including value assumptions and how these may affect services. Further, it includes awareness of institutional barriers to accessing services.

In the dimension of pursuing knowledge, a multiculturally competent psychologist is aware of the breadth or limitation of his or her own knowledge in working with a particular group (Sue & Sue, 1998). He or she will not assume that a brief review of the literature is sufficient to inform one of how to proceed but will actively pursue training and experience, stay up-to-date with pertinent literature, and continually expand his or her own level of cross-cultural contact (Perez-Arce & Puente, 1996). Yet even if a neuropsychologist working with Hispanic American elders keeps up to date with all the literature, it is important to understand that our current knowledge is very limited regarding how ethnic and cultural variables affect brain functioning (Perez-Arce & Puente, 1996). There are numerous culturally determined social roles, beliefs, and values that influence the way individuals operate in and make sense of the world and we don't yet have good ways of measuring how these affect neuropsychological test performance (Perez-Arce, 1999). The picture is further complicated by limits to our knowledge about how advanced age affects brain functioning (Grant, 1995).

The term "Hispanic" is a reflection of ethnicity, not race (Bryan, 1999; Puente & Ardila, 2000). Perez-Arce and Puente (1996) pointed out that ethnicity is more behaviorally oriented, as distinguished by such things as customs, characteristics, and language. Within the Hispanic ethnic designation, the population is not homogeneous and each subgroup has been influenced by numerous cultures (Ponton & Ardila, 1999; Tran & Dhooper, 1996). Furthermore, there are interactions between ethnic variables and other variables such as age, acculturation, language, and educational experiences.

A multiculturally competent psychologist will become familiar with similarities and differences among the Hispanic subgroups (Bryan, 1999). The role of traditional culture will likely play a greater role in the lives of elderly versus younger Hispanics in these populations. In the U.S., there are three main subgroups of non-White Hispanics. Over half are Mexican American, and there are also significant numbers of Puerto Ricans and Cuban Americans. Similarities among these groups include language, religion, and family values. Each subgroup also has unique diversity issues, including differences in family and gender roles, linguistic preference and proficiency, socioeconomic status, patterns of immigration and acculturation, and modes of interacting with others. Furthermore, each group has historical and current experiences and encounters with the dominant culture and sociopolitical system. On the other hand, it is important to understand and appreciate the heterogeneity that exists within subgroups as well, especially with respect to regional differences (Padilla & Medina, 1996). This paper presents only a brief overview of variables in the three main subgroups, and a multiculturally competent neuropsychologist will explore these in greater depth. In this regard, Ponton (2001) recommended exploring cultural literature, art, and music in addition to accessing psychological literature.

The ethnicity of Mexican Americans has been influenced not only by Mexican ancestors but by Spanish conquistadors, native Indians, and African slaves. At one time, Texas, California, Arizona, New Mexico, Nevada, Utah, and half of Colorado were part of Mexico, and Mexican history is marked by conflict with White settlers (Ponton & Leon-Carrion, 2001). The experience of Mexicans in this country has continued to involve racism and discrimination and, until recently, there has been little political influence. Mexican Americans are the most likely Hispanic subgroup to speak English (Vazquez & Clavijo, 1995).

Kivett (1993) noted that, in Mexican American families, the following are commonly found: 1) intergenerational daily living, 2) functional dominance of males, 3) sex-role distinctions in child-rearing, 4) strong family bonds, 5) centrality of children in the family, 6) repression of feminine attributes in males, and 7) men serving as heads of households. In traditional Mexican families, men were dominant and protective and women were submissive, raised children, and filled a nurturing role within the family (Bryan, 1999). These roles served as a defense against oppression and struggle and enhanced survival in rural and isolated areas (Kivett, 1993). Because of prevailing agrarian lifestyles, this male-female role differentiation often persists. Strong kinship bonds continue to help families overcome adversities in an oppressive dominant society. However, because large families are valued, often many people must be supported by small incomes. In many Mexican American families, there is still considerable influence of traditional family roles, but acculturation affects the strength of these roles and often decreases the traditional respect shown to the elderly (Centeno & Obler, 1996; Ponton, 2001). Extended families continue to be important for the elderly, who may fulfill a valuable reciprocal role in the family through babysitting, providing religious guidance, and allowing family members to move into their homes.

Cuban culture has been influenced by Spanish immigrants, African slaves, Chinese indentured servants, and native Indians. The U.S. intervened in Cuban affairs over the course of many years and attempted to annex Cuba in the war of 1890 against Spain (Ponton & Leon-Carrion, 2001). These U.S. interventions ceased after the Castro revolution of 1959. Thus, elderly Cuban Americans may have had a very different experience with U.S. culture than have younger Cuban Americans, and several waves of immigration into the U.S. has resulted in different experiences and levels of acculturation (Bryan, 1999). For example, the second wave of Cuban immigrants were generally well-educated, of high social status in Cuban society, had significant previous contact with the U.S., and had some financial resources. Later waves of immigrants were predominantly poorer economically, educationally, and socially. Cubans are the least likely of the main Hispanic subgroups to speak English (Vazquez & Clavijo, 1995) but many families are bilingual (Bryan, 1999).

Cuban elderly achieve social status through strong roles in ethnic politics and through safeguarding group values (Kivett, 1993). Also, aged Cubans tend to live independently more often than other Hispanic Americans, perhaps due to previous exposure to U.S. culture while in Cuba and higher levels of acculturation into Western society (Bryan, 1999). In addition, patriarchal family structure underwent significant change when Cuban women entered the labor market. Because of these factors, elderly persons often face greater isolation when health declines. In addition, behaviors reflecting social non-fitness, such as those often resulting from dementia, may degrade respect for the elderly (Henderson, 1996).

Puerto Rican culture is a mixture of European, African, Taino Indian, and American cultures (Ponton & Leon-Carrion, 2001). Puerto Rico became a U.S. possession in 1898, and its people are U.S. citizens. Puerto Rico has been self-governing since 1952 and has rejected the

option of statehood. Currently, there are as many Puerto Ricans living in the territory as there are in the mainland U.S. Many Puerto Ricans have come to the U.S. in search of a better life. Among Puerto Rican elders, reciprocity with extended family and friends generally leads to effective support systems (Bryan, 1999; Kivett, 1993). However, elderly persons are often isolated from the general population and contact may be mostly limited to other Puerto Ricans. Respect for the elderly is seen by many to be declining as young Puerto Ricans undergo acculturation into White society. Respect for the elderly is also compromised for persons with dementia because of decreased social fitness (Henderson, 1996).

Religious expression is usually important in the everyday life of elderly Hispanics and is maintained through social interactions (Ponton, 2001). While most Hispanics in these three subgroups are Christian, regionally specific religions may be followed as well (Bryan, 1999). These include *curanderismo*, a traditional healing system among Mexican Americans that is derived from folk Catholicism and Mexican Indian traditions (Baer, Clark, & Peterson, 1998; Centeno & Obler, 1996). In this tradition, health flows from social and spiritual harmony through faith, nutrition, and good living. Disease is seen to come from God, and it is believed that he might take it back if the patient approaches him correctly (Puente & Ardila, 2000). Thus, memory impairment may be denied or considered temporary if someone eats well and is religious (Centeno & Obler, 1996). Likewise, dementia may be seen as just punishment for improper behavior. In either case, herbal and home remedies may be preferred to mainstream medicine (Puente & Ardila, 2000).

Somewhat less information was found in the literature about Cuban and Puerto Rican healing traditions. In Cuban tradition, *santeria* is a healing system that is used as a mental health care system (Baer et al., 1998). It is derived from West African and folk Catholicism healing

traditions. A spiritual world is acknowledged that exists parallel to ours, and forces within that spiritual world are seen to affect the physical one. These forces include saints, gods, and bewitchment. In this tradition, health is seen to result from human and environmental balance. Thus, health results when natural is balanced with supernatural, mind with body, and hot with cold. *Espiritismo* is a traditional healing system among Puerto Ricans that derives from French and Afro-Caribbean traditions. In this healing system, health is God's gift and illness his punishment. Spirits in a parallel world and bewitchment also are believed to cause illness. Life is expected to be full of suffering, and people go to spiritualists for mental health services.

There are several similarities among Hispanic folk healing traditions (Koss-Chioino, 2000). A mind-body distinction may not be observed. Illness and misfortune are seen to have a locus of control that is mostly spiritual in nature and external to the individual. Malicious or impersonal non-human forces are seen to cause suffering, distress, and personal problems. In all three healing traditions, morality is integral to the healing process and may be a condition for recovery (Koss-Chioino, 2000). Imbalance is seen as a moral issue, and immorality can cause illness through upsetting the natural balance. Thus for healing to occur, it is necessary for physical, social, and existential elements to become balanced within the patient, between the patient and others, and in the cosmos. The healer may be expected to "know" what the complaints are without being told. The individual is then treated within the family system, and group participation in healing ritual is often preferred. Although various healing methods are employed, in general healing depends largely on nonverbal symbolic interactions, with restoration of balance as the goal. Concern and caring are conveyed as the healer ritually shares the sufferer's pain.

While traditional culture often has the most significant impact on elderly Hispanic patients' daily lives, conversely, acculturation may be the most important variable affecting performance on neuropsychological tests (Perez-Arce & Puente, 1996; Puente & Ardila, 2000). Acculturation impacts familiarity with testing situations as well as with specific stimuli (Ponton, 2001). Some have argued that what is actually measured in neuropsychological assessment is acculturation levels, not brain functioning. In turn, acculturation is itself affected by immigration variables, including time of migration, age at which one learned English, years spent in the American school system, sociopolitical experiences in the country of origin, gender, and whether or not family was left behind (Perez-Arce, 1996; Vazquez & Clavijo, 1995). Rural populations are the least likely to have experienced acculturation (Kivett, 1993).

Another aspect of acculturation relates to languages spoken by patients. Many elderly Hispanic Americans are bilingual or speak only Spanish (Taussig, 2001). In this respect, bilingualism may be seen as existing along a continuum with monolingualism at the two ends (Centeno & Obler, 1996; Ponton & Leon-Carrion, 2001). For Hispanic populations, speaking Spanish versus English has often been discouraged by the dominant culture, with the result that vocabulary has been lost, as have proficiency and grammatical mastery (Ponton & Ardila, 1999). As a result, a hybrid Spanish language has evolved that includes Hispanisized English terms. In addition, although the literature is generally silent about multilingualism, this may be a pertinent variable for some elderly Hispanic patients who speak a native Indian dialect in addition to Spanish and English. When assessing bilingual or multilingual Hispanic elders, it is important to be aware that these language differences greatly impact the neuropsychological testing situation (Suzuki, Vraniak, & Kugler, 1996).

In addition, many elderly Hispanics in this country have an relatively low level of education or were educated outside the U.S. or in substandard American school systems (Perez-Arce, 1999; Perez-Arce & Puente, 1996; Ponton & Leon-Carrion, 2001; Taussig & Ponton, 1996; Vazquez & Clavijo, 1995). Also, different Hispanic cohorts have experienced greatly differing levels of exposure to technology and industry (Taussig & Ponton, 1996). In general, measures of intellectual functioning in neuropsychology are heavily correlated with American measures of academic attainment (Perez-Arce & Puente, 1996; Puente & Ardila, 2000). However, White American ideas of educational success, using individual achievement and norm-referenced competition, may not be particularly salient measures of success within Hispanic cultures and thus a poor indicator of premorbid intellectual functioning. Furthermore, there is an underlying assumption in neuropsychology that test takers are familiar with taking standardized tests and do not have strong negative reactions to testing (Suzuki et al., 1996). Understanding the role of education thus is important in neuropsychological assessment. For example, non-brain damaged but illiterate Hispanics appear neuropsychologically similar to educated, brain-damaged Caucasian Americans (Puente & Ardila, 2000).

Besides these things, being elderly interacts with ethnicity to impact neuropsychological test performance. Grant (1995) defined the elderly person as "one who has lost much of the excess capacity to cope with insults in functional and adaptive aspects of life. Such a person is much more vulnerable to experiences that may overwhelm his or her adaptive capacity" (p. 205). For elderly Hispanics, a lifetime of discrimination, poverty, and struggle may have already severely taxed coping capacities. Within this context, variables affecting the clinical picture are many, but our knowledge of how they do so is limited (Perez-Arce & Puente, 1996). We do know that common problems faced by elderly persons are often exacerbated by ethnicity. For

example, older Hispanic Americans are more than twice as likely to live in poverty as older White Americans (Grant, 1995; Kivett, 1993; Vazquez & Clavijo, 1995). Even less information is available about older rural versus older urban minorities, and they are especially likely to be deprived socioeconomically (Kivett, 1993).

Some researchers have concluded that the greatest problem Hispanic Americans face is lack of access to the healthcare system (Bryan, 1999). Consideration is given here to this problem, because unless someone walks through the door, neuropsychological functioning cannot be assessed and other attempts to be multiculturally competent become irrelevant. Additionally, continued underutilization makes gaining multicultural experience difficult, and a cycle of culturally inappropriate and underused services ensues. Underutilization of services leads to common experiences among Hispanic caregivers that include limited knowledge about dementia, lack of knowledge about and access to resources for care support, limited access to trained bilingual or bicultural service providers, few culturally appropriate educational materials, and increased levels of burden and stress (Centeno & Obler, 1996).

In looking at barriers to service utilization, Damron-Rodriguez, Wallace, and Kington (1994) distinguished between structural and cultural barriers. Structural barriers include institutional racism, limited income, lack of health insurance, lack of transportation, confusing administrative procedures, and language difficulties. Cultural barriers include family dynamics, a fatalistic attitude towards life, and accumulated experiences of powerlessness and oppression. There is often overlap between structural and cultural barriers, and specific factors that lead to underutilization of services may be especially difficult for the elderly. For example, most elderly Hispanics in this country live on very little money and depend on their family for financial and emotional support (Tran & Dhooper, 1996). Therefore, cultural barriers may play a greater role

when income is low. In addition, many elderly Hispanics speak little English and must rely heavily upon family members for communicating with non-Hispanic service providers (Kivett, 1993). Also, there often is a lack of understanding about how the mental health system operates in this country and stigma is associated with seeking mental health care, as institutions were once perceived as meting out punishment for the weak (Grant, 1995; Henderson, 1996; Vazquez & Clavijo, 1995). For these reasons, the ordinary use of community and social services may be seen as degrading. Thus, while depression may be easily treated, often elderly Hispanics do not seek treatment because of negative views about the mental health care system (Vazquez & Clavijo, 1995). Instead, the elderly and their families may avoid help until they experience very serious symptoms. In addition, folk healing may be better understood and preferred. Besides all these things, ageism creates additional barriers to mental health services (Grant, 1995; Henderson, 1996; Vazquez & Clavijo).

Ortiz and Fitten (2000) ranked barriers to accessing healthcare for cognitively impaired elderly Hispanics and found that the most significant barrier to utilizing services was personal beliefs. These included perceptions of illness, health needs, attitudes, and values and beliefs about medicine, healthcare workers, treatment, and the consequences of aging (e.g., I think I can manage without medical attention. I was afraid the doctor would think I was crazy. I thought this was normal--part of old age. I was treating myself with herbs, tea, etc. I was afraid of what the doctors would do to me.) Another important barrier was language differences, which were strongly correlated with low levels of acculturation and education. Also significant was economic status, since elderly Hispanics often have especially low income and limited or no health insurance.

Becoming Multiculturally Competent – Developing Skills

Sue and Sue (1998) pointed out that multiculturally competent clinicians will not insist on using the same approaches with all clients. Rather, the clinician must be able to generate a wide variety of verbal and nonverbal responses and send and receive verbal and nonverbal messages accurately and appropriately. Exercising institutional intervention is often important as well, as is being aware of one's own helping style and anticipating the impact of this on clients of different cultures.

In the dimension of developing skills, neuropsychologists assessing Hispanic American elders need to be aware that often "the sign on the door says welcome and yet (services) are so culturally inappropriate" that elderly Hispanics may essentially be entering a foreign place (Damron-Rodriguez et al., 1994, p. 53). Therefore, it is first essential that the clinician accurately assess his or her own multicultural competency before beginning assessment. Are you the most qualified clinician available (Ponton, 2001)? Is assessing a particular patient beyond your area of competence? If one's own cross-cultural skills are found to be deficient, referral or consultation is strongly recommended. If this is not feasible, then at least interpretations of test results can take into account the examiner's weaknesses rather than assuming that test scores result predominantly from patient variables.

Knowledge of the patient's ethnic subgroup is important here as well, as it is necessary to become familiar with how people within the patient's culture perceive and solve problems and how home and out-of-home environments exacerbate or ameliorate cognitive problems (Perez-Arce & Puente, 1996). However, even with this knowledge one cannot expect to compensate for current assessment tests and procedures that fail to take into account different modes of processing among cultures. Even the most multiculturally competent examiner must improvise,

adapt, translate, and adjust assessment procedures and protocols. When interpreting the results, it thus is important to realize the limits of any standardized or custom assessment battery. In this regard, clinicians should provide informed consent that clearly delineates the limitations of testing and the equivocal nature of the results (Ponton, 2001).

For non-Spanish speaking clinicians, one of the most important considerations is the patient's proficiency with the English language, since language, expressions, and concepts familiar to persons in one language may be unfamiliar to others (Taussig & Ponton, 1996). Around 90% of elderly Hispanic patients prefer to be tested in Spanish. Taussig and Ponton suggest measuring bilingualism and applying decision-tree rules to decide which language to use during assessment. Along this line, Ponton (2001) suggested using the Woodcock proficiency test to assess English proficiency and referring to an appropriate bilingual neuropsychologist (if possible) when language is an issue. If proficiency is found to be low and a Spanish-speaking neuropsychologist is not available, the clinician may decide to proceed with a translator, being fully aware of the higher levels of error introduced into the assessment by doing so. If English language proficiency is high, he suggested using an acculturation scale to determine if cultural variables may still warrant referral to a Hispanic neuropsychologist.

Centeno and Obler (1996) noted that getting a language history will aid not only in deciding the language to use during assessment but will also help determine the extent to which a lack of language proficiency may mimic or exaggerate neuropsychological deficits. A full language history includes age of language acquisition, countries of residence, modalities (speaking, writing, listening, reading) in which languages are used, and contexts in which languages are preferred. Although bilingualism may have modest positive effects on performance, it is important to be careful of overestimating bilingual patients' abilities. Usually,

it is most relevant to consider if the patient's abilities are underestimated due to a lack of full English proficiency. Besides the obvious impact on verbal tasks, language proficiency is critical for understanding and executing many neuropsychological tasks. Ponton and Ardila (1999) suggested allowing as many possible responses to an item in the continuum of bilingualism as are legitimate. It is also useful to realize that patterns of aphasia and recovery may vary for bilingual persons.

Regarding use of a translator, it is important to be aware that a special problem exists. Even when trained and competent translators are employed, rapport is decreased, standardized procedures are rarely used, and greater error is introduced (Perez-Arce & Puente, 1996; Ponton, 2001; Rey, Feldman, Rivas-Vazquez, Levin, & Benton, 1999). Timed tests, already difficult cross-culturally, become even more complicated when time is taken for translation. In addition, many subtleties and non-verbal language trends that might provide important qualitative information get translated out. Furthermore, if the clinician feels insecure about his or her ability to gather useful information, harbors conscious or unconscious bias, or is frustrated when assessment takes longer or is more difficult, these examiner factors may interfere with assessment outcomes for bilingual patients (Perez-Arce, 1999). Because of all these things, some authors recommended using translators only as a last resort, when there are no appropriate referrals available (Ponton, 2001; Taussig, 2001).

If translators are used, it is important to avoid using untrained interpreters, including family members, since neuropsychological translation and objectivity will be impaired (Ardila, Rosselli, & Puente, 1994; Vazquez & Clavijo, 1995). Untrained interpreters may add omissions, additions, or substitutions to statements of both the interviewer and patient and serious deficits or changes in emotions may be minimized or exaggerated (Suzuki et al., 1996). Family members

especially, out of love, pity, or respect, may modify the answers the patient gives or exaggerate the disability in order to receive more support (Taussig, 2001).

Although standardization and rapport will still be compromised, careful preparation of translators is necessary if the clinician decides to proceed. Effective interpreters must not only speak Spanish but be familiar with the patient's particular culture (Perez-Arce, 1999; Puente & Ardila, 2000). They should also be familiar with the subtleties of testing, be skilled at writing verbatim, able to discern subtle expressive and receptive alterations in language, understand the importance of nonverbal communication, and be able to communicate these many things to the examiner (Taussig, 2001). Taussig recommended verifying the credentials and meeting ahead of time to go over the standardized instructions. Things to consider include ensuring the translator speaks Spanish fluently and making sure that he or she does not interfere with testing by clarifying information in either direction or by assuming a psychologist's role. After assessment, it will be important to clearly spell out in the report the difficulties inherent in using a translator.

In order to address the needs of elderly Hispanics among those families not seeking services on their own, some suggestions for outreach were found. While researchers noted that few Hispanics attended educational forums for dementia education and caregiver support without specific outreach services, those who responded expressed appreciation, staying afterwards to ask questions and expressing a desire for additional conferences of a similar nature (Centeno & Obler, 1996; Taussig, 2001).

Specific suggestions for outreach include presenting oral and written information in Spanish and English in both short/simple and long/detailed versions, offering monthly presentations at senior centers, churches, and clinics, providing elder care, and providing transportation (Centeno & Obler, 1996; Taussig, 2001). Importantly, the greatest successes were

achieved when providers strove to create relationships with caregivers in particular communities over time, so that a trusting relationship was formed and embarrassment around talking about loved ones' demented behaviors or about the stresses of caregiving could be shared. Freidenberg and Jimenez-Velaquez (1992) recommended striving to develop a slow roster of cases through outreach services that include services in the home. In this manner, the clinician becomes a part of the Hispanic community rather than a distant intellectual neighbor. An emphasis on personal, individual interactions such as might be developed in small family-like groups honors Hispanic values (Henderson, 1996). Specific benefits to elderly Hispanic patients resulting from outreach programs designed with these elements in mind have included building more successful experiences with the mental healthcare system, decreasing embarrassment, and increasing education about dementia and normal aging.

There are many important interpersonal factors to consider when interviewing Hispanic-American elders. Racial experimenter effects have been shown to occur in psychological testing and interviewing, and Hispanic patients may show emotional withdrawal and increased tension when examined by English-speaking clinicians (Perez-Arce, 1999; Suzuki et al., 1996). Some show subjugated role behavior in the presence of clinical authority figures, and acquiescent responses may mask a lack of understanding or unwillingness to disagree with the examiner (Henderson, 1996; Perez-Arce, 1999). Additionally, limited encounters with mental health and medical professionals may increase anxiety and reduce communication. Hispanics often consider it abnormal and humiliating to open up to a stranger about family and medical matters, and assessment bias will occur if the patient fails to disclose relevant information (Suzuki et al., 1996). In fact, this often appears to be the case. Hazuda (1997) found that three questions on the Zarit Burden Interview for caregivers of older adults contributed to high measurement error.

These questions were 1) How often do you feel embarrassed about your relative's behavior? 2) How often do you feel that you will be unable to take care of your relative for much longer? and 3) How often do you feel that you should be doing more for your relative? When these questions were eliminated, measurement error was reduced. In addition to difficulties discussing patient behaviors and caregiver attitudes, testing in general may be embarrassing for people with little education.

All of these factors affect neuropsychological testing. However, in neuropsychology there is an underlying assumption that test takers are motivated to perform well (Suzuki et al., 1996). Because of these things, providing multiculturally competent assessment services requires that the psychologist become skilled in building rapport (Perez-Arce, 1999). The most important change most clinicians must make is allowing enough time for informal interaction and the exchange of pleasantries (Centeno & Obler, 1996; Puente & Ardila, 2000; Ponton, 2001). Hispanic values pertinent to assessment procedures should be honored and include *familismo* (a value of family as central to one's life), *personalismo* (a person-centered approach), hierarchical relationships in social interactions and in the family, and *respeto* (deference to others on the basis of age, personal worth, social class, and authority) (Vazquez & Clavijo, 1995). These will affect communication during interviewing and assessment in numerous ways. For example, *personalismo* may require the psychologist to share information about him or herself, e.g., marital status, number of children, income, or religion, and a competent psychologist will attempt to balance his or her own values with those of the patient. As noted above, due to *respeto*, family members may refuse to answer some questions if it might be seen as disrespectful of the patient to answer (Bryan, 1999). Other important values to be honored

include elevating dignity and self-respect, respect and preference for a person's word over written materials, and reliance on folk medicine (Bryan, 1999; Vazquez & Clavijo, 1995).

Further suggestions to enhance communication include inquiring about traditional healing, including self-medicating practices (Koss-Chioino, 2000; Taussig, 2001). In this respect, the psychologist should be open, accepting, and humble and consider a synthesis of healing traditions as most acceptable to some patients. Other communication skills include negotiating through verbal rather than written contract and carefully explaining any papers the patient is asked to sign (Bryan, 1999). It is advisable to use language and examples that are concrete and tangible and that demonstrate concern for the here and now, avoiding open-ended questions that may be intimidating. It also may be necessary to repeat questions in different forms. Understand that a lack of eye contact, deference, and silence may all be signs of respect for authority figures. If the examiner is unsure of any answer to his or her questions, it is wise to resist the urge to bluff and to ask for clarification instead (Perez-Arce, 1999). While trying to elicit the best possible performance may mean departing from standardized procedures, this may be preferable and more useful than providing culturally inappropriate services and the clinician should carefully consider all options.

Family-centered relationships in Hispanic culture may affect interviewing in several ways. As previously noted, many children serve as mediators between their parents and the dominant culture, and this is often the case in neuropsychological assessment (Ponton, 2001). In traditional Hispanic families, women are more often the caregivers, and sons usually make decisions for and speak for their elderly parents (Henderson, 1996). Focusing on the strength of this intergenerational bond can instill hope and honors the Hispanic value of *familismo* (Centeno & Obler, 1996). At the same time, changing values are often a source of conflict in Hispanic

families, with elderly members functioning more traditionally and younger persons being more acculturated (Ponton, 2001).

In general, interviewing cross-culturally will be more effective if it is performed in a flexible and informal way (Puente & Ardila, 2000). Culturally sensitive services can ameliorate some of the reticence Hispanic elders may feel towards neuropsychological services (Damron-Rodriguez et al., 1994). In turn, reduced stress will reduce measurement error. In these ways, sensitivity to cultural traditions and values allows the patient to feel more at ease and leads to more accurate and useful outcomes.

According to Taussig (2001), there are several special considerations when interviewing elderly Hispanic patients. Before considering a diagnosis of dementia, it may be necessary to rule out the effects of self-medication, including the use of herbal therapies. Somatization may be a greater diagnostic issue, especially if the patient is unable to express his or her feelings in English to the clinician. Undetected vision and hearing problems because the patient cannot afford checkups may complicate matters, as may nutritional deficiencies, unreported head traumas, and infections, especially urinary tract infections that may be untreated due to discomfort talking about parts of the body that are considered private. Alcohol use may be underreported by the family due to love and respect for the older adult. In addition, ignorance regarding normal aging may make diagnosis more complicated. In these matters, the clinician who is respectful and tactful will elicit more useful information.

It is beyond the scope of this paper to review the neuropsychological assessment instruments available. However, a multiculturally competent clinician should give careful consideration to which tests to use in assessment with these populations, as some tests are not culturally friendly to elderly Hispanic patients. Assumptions that non-verbal or performance tests

are culture-free or not significantly affected by education may be incorrect (Grant, 1995; Jacobs et al., 1997; Perez-Arce & Puente, 1996). Even items for global tests of cognitive functioning may be biased when used with Spanish-speaking older adults (Mahurin, Espino, & Holifield, 1992; Marshall, Mungas, Weldon, Reed, & Haan, 1997). In particular, timed tests may not be appropriate or useful (Puente & Ardila, 2000). Time in Hispanic culture is viewed as something to be enjoyed, and rushing may be seen as contradictory to quality. It may be more important for some patients to take time to establish good rapport with the examiner than to perform well, as cooperation and social ability might be more highly valued than is competitiveness. In fact, being "educated" in many Hispanic cultures refers to having strong social skills. Other tests may be viewed as child's play (e.g., manipulating blocks) and seen as especially inappropriate for men (Bryan, 1999). In addition, elderly Hispanic patients unaccustomed to paper and pencil tests may be uncomfortable being observed during testing (Taussig, 2001). A tendency to say "I can't" or "I don't know" in response to task demands may occur with greater frequency in this population when the patient is unable to do the task.

Because of the above-mentioned concerns, it is important to take time to explain the relevance of each test and how the results will be used. Also, it is useful to recognize that the perceived meaning of testing from the patient's point of view may differ from that of the examiner (Perez-Arce, 1999). Thus, the clinician should ascertain how the patient understands the reason for testing and clarify what will take place, the social meaning and pragmatic intent of testing, and what types of attitudes and behaviors are expected in the session. However, while taking the time to explain the relevance of each test may compensate to some degree for different understandings and values about the testing situation, it should be recognized that it is unlikely to overcome these completely.

Constructs relating to brain functioning may have relevance in one culture but not in another (Ponton & Ardila, 1999; Suzuki et al., 1996). Thus, test bias may occur in the content and construction of tests, in the mode of administration and examiner personality, and through inappropriate use of the tests (Padilla & Medina, 1996). Even if item content is preserved, the ability to tap into the same ability or same meaning within the culture may not be present. The questions remains, What is the best way to characterize normal brain functioning in different cultures (Evans et al., 2000)? It should be noted that there is limited consensus even in mainstream culture about how to characterize intelligence and other constructs relating to brain functioning (Suzuki et al., 1996). Thus, some authors recommended functional ability testing with Hispanic elders, in which patients are asked to complete tasks such as putting on a shirt, reading simple signs, counting money, finding the date on a calendar, and using the telephone (Mahurin et al., 1992).

Tests have almost always been normed on White, middle-class, educated subjects, and therefore most norms are inadequate for elderly Hispanic patients (Ardila et al., 1994; Evans et al., 2000). While some researchers have found equivalent norms for Hispanic and White populations on some tests, there seems to be insufficient research to know if selection bias affected these conclusions (Rey et al., 1999). However, some have suggested that separation of norms by ethnicity may not be supported (Gasquoine, 1999). For example, Hispanics with lower education levels who were raised in rural areas of Latin America usually have performance deficits compared to primarily Caucasian American norms on a wide range of neuropsychological tests, including non-verbal ones. At this time, we don't even know on which tests ethnicity is an important variable (Grant, 1995). Thus, no test can be considered culture-free (Evans et al., 2000). To aid the clinician in exploring which tests may be most appropriate,

detailed reviews of tests can be obtained (Arnold, B.R., Montgomery, G.T., Casteneda, I., & Longoria, R.; 1994; Evans et al., 2000; Golden & Thomas, 2000; Ponton, 2001).

Usually in testing, it is assumed that a person has had a full opportunity to present his or her abilities (Mahurin et al., 1992; Puente & Ardila, 2000). However, even when tests have been normed for Hispanic populations, situational bias may occur, and a greater number of false positives are to be expected. Conversely, it is important to be wary of blaming too much of the current problem on cultural variables. In this respect, it is suggested that clinicians weigh the likely effects of false-positive diagnoses versus false-negative ones, considering how the results will be used (Grant, 1995; Padilla & Medina, 1996). In the report, it is advisable to note all possible confounding variables, including degree of bilingualism, language used at home, when English was acquired, which language was used at school, which norms were used, deviations from standardized administration, and cultural barriers (Puente & Ardila, 2000; Vazquez & Clavijo, 1995). In addition, Ponton (2001) suggested reporting which tests or subtests are the most reliable for the patient's demographic subgroup, explaining why these are likely to more accurately reflect the patient's situation. Also, explain which are the least reliable tests and subtests and why.

Even when Hispanic norms are used, Llorente, Ponton, Taussig, and Satz (1999) identified potential sources of bias resulting from acculturation differences among various Hispanic populations that included total number of immigrants at the time of immigration, occupational status, and geographical preference. Gasquoine (1999) and Llorente et al. (1999) recommended using multiple norms that have similarities to the person being assessed. These include English language fluency, acculturation, education, and SES.

Since acculturation may drastically affect test scores, it is advisable to include a measure of acculturation in the neuropsychological examination, and these scales are readily available (Evans et al., 2000; Ponton, 2001; Suzuki et al., 1996; Taussig & Ponton, 1996). As a case in point, when the Acculturation Rating Scale for Mexican Americans was given to Caucasian Americans, Mexican Americans, and Mexicans, scores were consistently different on measures of several assessment tests for the three groups (Grant, 1995). Thus, it is recommended that examiners become familiar not only with which subgroups were used in the norming processes for various instruments, but whether or not there is an association between scores and acculturation (Puente & Ardila, 2000).

In the end, the most important consideration in testing is the meaning the results have for patients' lives, and multicultural competency is the ability to assess clients in ways that are acceptable and useful to them (Ardila et al., 1994; Centeno & Obler, 1996; Perez-Arce & Puente, 2000). When interpreting test results, it is important to question whether or not the results of neuropsychological assessment carries similar meaning across cultures (Evans et al., 2000). Scores will only tell us for sure how much the patient differs from those on whom the tests were normed. They will not tell us if there is a decline in brain functioning and what impact any dysfunction will have in the patient's life. Since it is impossible and even undesirable for all cultural effects to be eliminated, a multiculturally competent neuropsychologist will attempt to interpret scores within the patient's cultural context, with an awareness of how individuals in the patient's culture approach specific tasks. The goal is to enhance the patient's ability to cope with and find satisfaction in life, and it is important to understand which factors in daily life evoke, maintain, strengthen, inhibit, compensate, or modify behaviors and abilities as assessed (Perez-Arce, 1999). What are the supports or obstacles that the patient experiences in his or her

environment? Will the behaviors assessed by facilitated or weakened within this context? Most tests measure a variety of things, and it is up to the examiner to try to disentangle variables such as acculturation from evidence of brain damage (Puente & Ardila, 2000). Grant (1995) and Perez-Arce (1999) recommended correlating scores with reported daily coping skills and relying more on patterns of results rather than on absolute levels of performance, since this is less dependent on baseline functioning and may more accurately reflect the patient's situation within his or her environment.

Recommendations for rehabilitation or treatment may be biased as well (Suzuki et al., 1996), and the clinician should consider how the patient's environment may help or hinder recovery, adjustment, and learning compensatory skills (Perez-Arce, 1999). In this respect, it is probably wise to approach care planning slowly, inviting questions and collaboration with the patient and his or her family (Centeno & Obler, 1996). When considering various options for treatment, rehabilitation, or support, it is suggested that clinicians ask permission before inquiring into personal finances or other personal matters.

In summary, this review of the literature revealed that it takes personal commitment and time to become multiculturally competent in neuropsychological assessment of Hispanic American elders. To this end, many suggestions were found in the literature that may be useful to individual clincians trying to develop greater multicultural competency. Through considering how to deepen awareness, acquire knowledge, and develop skills, a journey can be undertaken that not only benefits patients but is richly rewarding to the clinician as well.

However, a paucity of pertinent research in the field was also noted (Grant, 1995; Lewine & Caudle, 1999; Taussig, 2001; Yeo et al., 1996), and there are inadequate numbers of Hispanic practitioners (Grant, 1995; Perez-Arce, 1999; Perez-Arce & Puente, 1996; Vazquez & Clavijo,

1995), increasing the barriers to elderly Hispanics and their families in need of services (Damron-Rodriguez, Wallace, & Kington, 1994). Areas in which more research is needed include how similarities and differences in normal and diseased brain functioning are manifest in Hispanic American versus White American populations and how socioeconomic variables influence these manifestations. Additionally, it may be that, in order for the field of neuropsychology to grow and develop multiculturally, a more diverse professional community is needed. If doctoral programs specializing in neuropsychology begin to attract greater numbers of Hispanic and other minority students, it is likely that a setting would begin to evolve that would enhance the ability of all students to become more skilled and comfortable providing multiculturally competent assessments for elderly Hispanic Americans. If this leads to greater utilization of services by these populations, a cycle might ensue that enabled greater opportunities for multiculturally competent services, greater opportunities for experential learning and clinical practice, and development of more appropriate assessment instruments and more accurate norms.

In this regard, it may be especially important for the field of neuropsychology as a whole to become more aware of the limitations and biases inherent in this specialty, to increase opportunities for gaining knowledge of elderly Hispanic populations in need of services, and to develop appropriate research and training programs, assessment instruments, and norms so as to enhance the ability of individual practitioners to provide multiculturally competent services.

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