Neurorehabilitation With Hispanic/Latino Populations: Psychological Perspectives on Interprofessional Communication

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Abstract

Recent research at the intersection between multicultural psychology and rehabilitation psychology has acknowledged the linguistic and cultural factors affecting therapeutic outcomes. For Hispanic patients, their growing population, limited access to adequate healthcare, and numerous risk factors present unique challenges to their therapists. Hispanic patients may require the use of a translator, whose ability to directly translate emotional meanings can be limited by their own experience with the patient’s cultural background and specific dialect. Moreover, functional and cognitive assessments may be limited by their generalizability to a variety of Hispanic subpopulations. Religious considerations must also be met, as a patient’s adherence to treatment may depend on their understanding and belief in the value of the therapeutic process. As a result of these cultural considerations, Hispanic patients often experience poor outcomes relative to non-Hispanic patients, including limited functional independence, fewer opportunities for on-the-job support, and a higher risk for related illnesses and conditions. Family support, an integral component of a Hispanic patient’s neurorehabilitation team, may suffer similar negative outcomes, the result of a familial obligation to preserve the family unit. Therapists are encouraged to consider these linguistic and cultural factors of treatment in order to promote better outcomes for patients and their families.

An evolving concern in mental health counseling and rehabilitation that has recently stimulated an abundance of research is the aspect of multiculturalism. This concern most likely stems from the increasingly diverse demographic trends in modern societies worldwide. Globally, our diverse societies not only contain several distinct cultures, but through their interactions, they have given birth to new cultures where individuals adopt certain traits from more than one culture. In other words, culture is largely heterogeneous. Each individual views the world through his/her own cultural lens, and each individual is viewed likewise by others (Constantine, 2002). Acknowledging the ways in which our cultures affect us, positively or negatively, may be an important factor in maintaining desirable mental and physical health.

As suggested by Smith and Trimble (2016), research that is evidenced-based in the realm of multicultural psychology can better inform diagnosis and treatment options when working with individuals from diverse backgrounds. The authors suggest that studies on multicultural competencies are somewhat lacking in the extant literature; however, they also indicate that
great strides have been made to publish work that investigates the role of ethnic identity in promoting therapeutic situations that can lead to positive outcomes and improve overall health and well-being for individuals. Moreover, Hispanics in the United States have engaged more and more in healthcare systems, particularly those that involve mental health and wellness, as compared to their utilization in the past (Kim et al., 2011). The Hispanic population makes up a significant proportion of foreign-born individuals in the United States, as in 2014, 52 percent of foreign-born people in this country were from Latin America (Camarota & Zeigler, 2016). Thirty-seven percent of post-2010 immigrants were from Latin America (Camarota & Zeigler, 2016).

Recent Census data indicate that close to 20% of the U.S. population reported speaking a language other than English at home, though about half of the U.S. immigrant population indicated that their English-speaking abilities were less than “very well”, thus, characterized as limited English proficiency (U.S. Census Bureau, 2005). Among Spanish speakers, more recent Census data suggest that the percentage who speak English less than “very well” has decreased, though they are still less likely to speak English “very well” than are other, non-Spanish speakers (Ryan, 2013). Therefore, there are language as well as cultural barriers that might make it challenging for these populations to seek treatment on a variety of levels.

Despite their growing population and unique experiences and needs, Hispanics are still largely underserved in the healthcare system: They are less likely than other minorities to have health insurance, multiple healthcare providers, and regular care (CDC, 2004). After reviewing the medical literature, Arango-Lasprilla et al. (2007a) found that Hispanics present a disproportionately high incidence rate of serious medical illnesses, including diabetes, cancer, and asthma, as well as those conditions that rely on neurorehabilitation services: stroke, spinal cord injury, and traumatic brain injury. Additional risk factors associated with these diseases and conditions include restricted employment and educational opportunities, dangerous home environments, and physically demanding jobs (sometimes “off the books”). These factors increase the incidence rate of traumatic brain injury among Hispanic individuals more than any other group (Arango-Lasprilla et al., 2007a). The reduced access to adequate healthcare, coupled with a multitude of environmental risk factors, make the issue of neurorehabilitation particularly relevant to this population. The current review will extend this discussion by presenting research related to the linguistic, cultural, and assessment factors affecting Hispanic patients in neurorehabilitation settings. These considerations and factors summarize important cross-disciplinary and interprofessional psychological principles for speech-language pathologists (SLPs) and other neurorehabilitation professionals working with Hispanic individuals in these settings.

Factors Affecting Communication and Patient Outcomes

The following discussion will consider the ways in which (a) language barriers affect communication with a patient’s rehabilitation team, (b) cultural factors affect the acceptance and initiation of treatment, and (c) assessment quality affects their utility for these patients.

Language Barriers

Linguistic factors affecting therapy are numerous. In the simplest of cases, language preference must be considered, and may necessitate the use of interpreters to transmit important information (for detailed sets of ethical guidelines see APA, 2017; ASHA, n.d.). When possible, permitting a bilingual mode of therapy can enhance the therapeutic alliance between doctors and their patients, by promoting an environment that allows for language flexibility and switching (Olivares & Altarriba, 2009). For example, a Spanish-speaking client might use the word cariño when describing a combination of like and affection for an individual, given that no single English word captures the semantic/conceptual features of this particular word (Altarriba, 2003). This bilingual mode—offering language flexibility to a client—can enhance accurate communication and better capture patients’ needs and concerns. Language switching can also help therapists establish trust, as they bond with their patients on an interpersonal, linguistic level (Santiago-Rivera & Altarriba, 2002; Santiago-Rivera, Altarriba, Poll, Gonzalez-Miller, & Cragun, 2009).
Encouraging language flexibility and switching is particularly important in emotional settings, as emotion word processing differs across a Spanish-English bilingual’s languages (Kazanas & Altarriba, 2016; see also Harris, Gleason, & Ayçiçegi, 2006; Pavlenko, 2008). Moreover, words may differ in terms of dialects within a given language. For example, the word carro is a typical word used in Spanish for the word “car” for Cubans; however, in other parts of the world, the more common Spanish translation might be auto. Misunderstandings can also occur with nonverbal communication, as is the case with emotional gestures. Lequerica and Krch (2014) astutely noted the broad differences in displays of anguish and struggle across cultures, notably, the exclamations to God and beating one’s chest that accompany grief processing. Thus, expertise with a patient’s preferred language and their emotional meanings, akin to an ethnic matching, will likely promote better communication and long-term outcomes (Olivares & Altarriba, 2009).

When interpreters are needed, rehabilitation therapists often express frustration with their experiences. In a study exploring these difficulties, Taylor and Jones (2014) interviewed a number of therapists working across a language barrier with stroke patients. They reported fewer sessions with their patients (a result of needing to arrange sessions with patients and interpreters), delays in assessment and treatments, and less efficient sessions. In addition, their interactions lacked informal conversation, because of difficulties in communicating these subtle messages. One of the doctors noted, “You miss that, sort of, interaction with the patient when you use an interpreter… you don’t necessarily have that banter or that common sort of chatting in between that you would with someone who spoke English” (p. 2130). To promote that missing rapport, some therapists will invite a patient’s family members to participate in their sessions. However, utilizing family members for translation purposes can introduce new problems: Some will answer for the patient, have difficulties providing objective responses, or lack the education needed to understand their role in the session. Because Hispanics value family support over social support from strangers, many will prefer to rely on their family for these interpreter services (Olivares & Altarriba, 2009). A doctor from Taylor and Jones’ (2014) study also remarked, “Family members tend to answer for the client a bit more, in that you don’t get that direct translation, because they obviously have a relationship with the person they feel that they know what they’re trying to say” (p. 2130). The authors concluded that overcoming a language barrier affects all aspects of the therapeutic process, as frustrations were exhibited by occupational therapists, doctors, SLPs, and counselors. Occupational therapists expressed difficulties interpreting body language, psychiatrists indicated obstacles in assessing mood, and so on.

**Cultural Factors**

Additional considerations must be made for cultural factors affecting rehabilitation. In a recent review, Castillo and Caver (2009) recommended assessing patient acculturation, to determine whether patients have maintained their heritage culture or have begun to adopt behavioral, cognitive, and emotional aspects of their new culture. Examining these dimensions of acculturation can help a therapist understand their patient’s cultural norms and unique needs, as they customize treatment plans (Altarriba & Santiago-Rivera, 1994; for recent examples of such acculturation scales, see Mills, Malcarne, Fox, & Sadler, 2014; Zea, Asner-Self, Birman, & Buki, 2003). A patient’s values and customs may also depend on how much they have incorporated new cultural beliefs into their life; as a result, therapists may need to consider when new beliefs conflict with heritage beliefs (Hanson & Kerkhoff, 2007). Using a culturally appropriate approach to therapy will increase respect and rapport, as well as the likelihood that patients will engage in all aspects of their rehabilitation; as a result, patients often experience better outcomes under these conditions and can overcome a variety of health disparities (Lequerica & Krch, 2014; Lequerica & Panyavin, 2015).

For those patients who have maintained their cultural beliefs, several of these beliefs are relevant to the current discussion. For example, Olivares and Altarriba (2009) have outlined familismo, respeto, and simpatia as central to Hispanic culture. Familismo, the value and prioritization of family, is observed among families caring for their disabled relative, often forsaking their individual needs. Familismo must also be considered when working with a patient whose family
members wish to be more involved in their therapy. *Respeto,* or respect, should be considered when establishing and maintaining rapport with patients and their families. Respect between therapists and patients can also promote compromise, as needed when striking the balance between patient’s established values and their rehabilitation goals; therapists should adopt a respectful approach with their patient before addressing their problems and goals (Olivares & Altarriba, 2009). Finally, *simpatía* speaks to a need to avoid conflict. Hispanic patients are more likely to continue their rehabilitation with therapists who respect this need and limit straightforward interactions (e.g., those interactions that limit the time spent building rapport). Patients also feel more connected with therapists they can trust (the value of *confianza*), as well as those who make them feel comfortable during their interactions (*personalismo*). Each of these values must be understood, for therapists to maintain a relationship with their Hispanic patients.

A Hispanic patient’s religious and spiritual background must also be considered during therapy (Galanti, 2015; Lequerica & Krch, 2014; Lomay & Johnstone, 2016). Following an injury or illness, a patient may question the underlying cause of their new life circumstances. Some patients may view their injury as a punishment for sin and feel too defeated to participate in therapy; others may rely on prayer and believe that participation in therapy would be viewed as lacking belief in God’s healing power. For these patients, additional counseling may be needed to address these fundamental beliefs. Attending church following an injury, a form of community reintegration, may also be helpful for devout patients. Concerning these values, therapists should make a considerable attempt to understand their patient’s perspective and offer the culture-appropriate services to ensure continued engagement in the therapeutic process.

**Assessment Quality**

Several recent reviews detail another important factor affecting therapy outcomes for Hispanic patients: the paucity of translated and validated assessments (e.g., Benuto & Leany, 2013; Leany, Benuto, & Thaler, 2013; Salinas, Edgar, & Puente, 2016). These issues speak to the necessity for fair evaluations, increased normative data, and a degree of flexibility regarding a patient’s preferred testing language. In many cases, simply translating and administering assessments in a patient’s first language will not provide a valid assessment of their abilities. Regarding language preference in testing, Salinas et al. (2016) have recently recommended considering country of origin, language exposure, and language spoken at home, school, and work, or simply asking a patient for their personal preference (though preferences may also be situation-specific).

In addition, while some assessments have been translated for a Spanish-speaking population, ethnic and cultural differences among Spanish speakers can sometimes limit their general utility (Benuto & Leany, 2013); a seemingly culture-fair test may not be fair across regional dialects and microcultures. Thus, an assessment’s overall quality relies on two related factors: (a) appropriate language and (b) generalizability across a variety of Hispanic populations (i.e., Mexican patients, as well as Puerto Rican, Cuban, and so on). For example, a complete neuropsychological test battery, comprised of 16 tests assessing attention, executive functioning, learning, and memory has been validated for use with Spanish speakers from the Mexican Border region, as well as from Spain (Artiola i Fortuny, Heaton, & Hermosillo, 1998). This validation represents a useful “first step” in considering overall assessment quality. Unfortunately, this multicultural validation method is not often used; many assessment validation samples are small and region-specific, greatly limiting their generalizability for all Hispanic patients (Leany et al., 2013). Moreover, therapists may wish to consider whether their nonverbal assessments (such as those measuring cognitive abilities, which do not always require translations) are also culture-fair. Related to the current discussion, both literacy and education levels should also be considered in the assessment of these populations, as they have been shown to influence performance on neuropsychological measures (e.g., Manly, Tourajdi, Tang, & Stern, 2003; Rosselli & Ardila, 2003).
Outcomes for Patients and Their Caregivers

Linguistic, cultural, and assessment factors largely affect patient outcomes and these outcomes can be particularly disparaging for minority patients (Arango-Lasprilla & Kreutzer, 2010). In one recent study, Arango-Lasprilla et al. (2007b) compared functional outcomes across ethnicity groups one year following traumatic brain injury. Their measures included those pertaining to self-care, locomotion, communication, social cognition, and several others. At their discharge and one-year follow-up appointments, minority group data reflected greater physical impairments as compared to white patients, as well as poorer cognitive ability and functional independence, even when controlling for age, cause and severity of injury, employment, and marital status. Unfortunately, these outcomes may be the result of fewer therapy services, limited financial resources for other services, related illnesses, and other factors affecting their rehabilitation. In this particular study, the first of its kind, minority groups did not differ across functional outcomes.

Researchers have also directly examined these outcomes for Hispanic patients. In one of these studies, Arango-Lasprilla et al. (2007a) compared one-year follow-up data across a larger sample of white and Hispanic patients. Again, controlling for age, injury severity, and other sociodemographic and injury-related variables, Hispanic patients were more likely to score in the lowest quartile on functional outcome measures. However, in this study, white and Hispanic patients did not differ in their functioning during admission or discharge. Thus, any observed differences in functional outcomes are likely the result of disparities in treatment and services, or other opportunities for patients (Arango-Lasprilla et al., 2007a).

One additional study addressed the effect of treatment disparity among rehabilitation patients. Analyzing a large set of rehabilitation archival data, da Silva and colleagues (2007) compared white and Hispanic patients who had participated in vocational rehabilitation: a program designed to assist patients in returning to work following traumatic brain injury. Though Hispanic patients were more likely to receive vocational training, transportation services during rehabilitation, and financial support, they were less likely to receive on-the-job support services than were white patients. As this latter variable is the strongest predictor of successful employment, Hispanics were less likely to obtain competitive employment following vocational rehabilitation. It appears that Hispanic patients do receive many important services but not the one most critical to their functional independence. Moreover, when the authors could account for demographic factors including age, gender, education, and prior employment, as well as injury severity, many global differences across Hispanic and white patients were nonsignificant. Additional research, particularly research related to employment opportunities and training interventions, is needed to further examine work placement difficulties for Hispanics. Findings from these studies highlight an important trend—Hispanics may be at a greater risk for conditions requiring rehabilitation services and suffer worse physical, functional, and employment outcomes. Critical resources and training are needed to provide better care and more promising outcomes for these patients.

Often overlooked, caregivers for individuals with traumatic brain injury face some similar mental and physical outcomes. Spouses and close family members are often consulted for family history and language preferences, but also relied upon for rehabilitation involvement and participation (Centeno, 2015). Some of their negative outcomes stem from a sense of burden, caused by a feeling that a caregivers’ work exceeds what is personally or culturally appropriate. However, what is “culturally appropriate” can widely vary. For example, accepting responsibilities is related to familial obligation and duty among black and Hispanic caregivers, despite this being connected to greater emotional distress than observed among white caregivers (Sander et al., 2007). Thus, a degree of flexibility in caregiving responsibilities may promote more positive outcomes.

In the Hispanic culture, there is an assumption that care will be provided by a close family member, though the family may not be prepared or experienced enough to understand the responsibilities associated with caring for an individual with long-term or permanent disabilities.
(for a review, see Arango-Lasprilla, 2012). One recent study conducted by Friedemann, Buckwalter, Newman, and Mauro (2013) examined patterns of caregiving across a variety of ethnic groups living in South Florida. Interviews with Cubans, other Hispanics, Caribbean blacks, and non-Hispanic whites provided data related to their health, cultural values and perceptions, family functioning, and workload. In many ways, these ethnic groups did not differ in that caregivers had a similar feeling of obligation and affection for the patient (i.e., their family member) and were equally able to cope with their new roles, though they indicated a high level of responsibility and workload. The authors did note several important cultural differences. For example, Cuban caregivers worked longer hours, but felt the least amount of burden associated with their workload. Cubans also reported the highest levels of family stability. Together, these findings suggest that a caregiver may put aside feelings of personal sacrifice, for the sake of their familismo as they seek to preserve their strong family dynamic. Future research may want to engage a larger number of minority groups, to specify cultural variations among their “other Hispanic” participants.

In a related study conducted with Colombian caregiver-patient pairs, Stevens et al. (2012) examined the relationship between caregiver burden and depression. Importantly, the strongest predictor of caregiver burden and depression (i.e., the variable explaining the largest amount of unique variance) was their perception of the patient’s depression, and not their personal sense of burden, relationship with the patient, gender, or other predictor variables. Again, the strong prioritization of family needs, relative to personal needs, appears to underlie these findings. Stevens et al. (2012) recommend a series of interventions to reduce the incidence of depression among Hispanic caregivers, including improving their coping skills and adaptive thoughts (e.g., redirecting their thoughts from a patient’s overall hardships to their daily successes).

Unfortunately for caregivers, their health-related quality of life can also suffer. Caregivers often experience extreme fatigue and loss of energy. Gulin et al. (2014) recently examined these health outcomes in Mexican caregivers. They found a strong relationship between caregiver’s mental and physical health—increases in physical health were largely met with increases in mental health, and vice versa. Maintaining social interaction and vitality (i.e., higher energy levels) were also related to lower levels of depression. Thus, any interventions for caregivers combatting burden-related depression should emphasize the importance of both physical and mental health. Perhaps the benefits of social functioning, via community engagement, and active lifestyles can act as a buffer to the psychological strain associated with long-term caregiving (Gulin et al., 2014).

Caregiving can also promote positive outcomes, particularly among those providing long-term support. Recent studies utilizing the Positive Aspects of Caregiving Scale (PACS; Tarlow et al., 2004) have found that caregivers often ascribe value to their role; for many caregivers, the strength and confidence they bestow and promote can improve their own life satisfaction (Las Hayas, López de Arroyabe, & Calvete, 2014). Caregivers who have retired may then experience a renewed sense of satisfaction that comes with work. These factors are also associated with positive personal growth and a decreased sense of burden, as noted by PACS items including, but not limited to, It has enabled you to value life more and It has enabled you to develop a more positive attitude toward life. Importantly, the PACS has been adapted and evaluated to be administered in Spanish and may be useful when assessing caregivers’ emotional well-being (Las Hayas et al., 2014).

Concluding Remarks: Training Recommendations for Neurorehabilitation Services

Together, these studies highlight the importance of unique psychological, cultural, and linguistic considerations when caring for Hispanic patients. Recently, the American Psychological Association (APA, 2002) adopted a series of multicultural guidelines to meet these needs, but additional training is needed across the entire spectrum of neurorehabilitation services. Additional considerations, specifically pertaining to the need for enhanced communication across the
rehabilitation team, have been recommended by the Interprofessional Education Collaborative (2016). The Collaborative’s values and core competencies demonstrate the importance of a team approach and dynamic to delivering population-centered care and improving patient health outcomes.

Given the growing Hispanic population and the outlined cultural and linguistic considerations, Centeno (2015) recently investigated the current state of neurorehabilitation services, specific to bilingual adults. An overwhelming majority of SLPs noted that they had no to minimal preparation for working with these patients, indicating a significant lack of academic and clinical education. Moreover, the SLPs felt limited by their assessments, given the lack of culturally appropriate and validated materials for their patients. As a result, many were unsatisfied with the state of bilingual services, but indicated a motivation to participate in continuing education opportunities and enroll in academic, clinical, and professional training. The training programs highest in demand included those pertaining to cultural awareness, working with additional bilingual patients, using interpreters, and completing a bilingual certification program (Centeno, 2015). Clearly, there is a dire need to train more culturally competent rehabilitation professionals, and this need is driven by the patients, their caregivers, and the entire rehabilitation team (Arango-Lasprilla, 2012; for additional recommendations regarding improving cultural competency, see Perumparaichallai & Klonoff, 2015).

Some recent findings from the related medical literature have promising results regarding communication training. In one of these studies, Michimata, Suzukamo, and Izumi (2013) developed a coaching intervention for clinicians working with stroke patients. In this training method, clinicians motivate patients and their families to improve their rehabilitation efforts. In their study, the clinicians participated in a two-day series of lectures and role-playing exercises, followed by three months of weekly tips and biweekly reports with the experimenters. Data were collected from both clinicians and their patients. Importantly, though the clinicians had not perceived any change in their communication ability, their patients’ outcomes indicated a more promising set of results. Patients reported significantly higher satisfaction with their therapist and their communication, as well as with their goal-setting, a particularly important outcome for stroke patients. Patients also reported improvements in their general health and social functioning, indicating a wide array of benefits associated with this intervention. Though their study was not designed to promote better outcomes among bilingual patients, per se, their results suggest that improvements in communication quality and their associated benefits, are an attainable goal for clinicians.

The extant literature on the multicultural aspects of psychology and healthcare delivery indicate that linguistic and cultural awareness, competency, and experience promote positive outcomes and improved mental health and wellness. Given the changing demographics of the United States in particular, training and skill-development in these approaches should be incorporated into educational environments early on, before students enter graduate training, and early experience in the field is warranted so that students know how to aptly use these approaches in settings in which diverse populations are being treated. Future research should focus on the plethora of cultural groups across the United States and the ways in which culture, language, and beliefs interact in healthcare settings and can be incorporated into treatment plans to further beneficial outcomes for clients and patients in all healthcare settings. While we argue that being bilingual per se is not a requirement for effective healthcare treatment, a working knowledge of some of the linguistic and cultural aspects of any particular population that is engaged in treatment can help to produce a closer bond, more disclosure, and a sense of trust between provider and patient. This additional knowledge and training can again only augment the positive outcomes that one would expect in a setting that is focused on treatment and long-lasting, positive effects for clients across healthcare settings.
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