

Language Barriers in Healthcare and Spanish Heritage Language Education: Language Assistance, Language Acceptance, and Language Affirmation

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1.0 Confronting Language Barriers

In 2000, President Bill Clinton signed Executive Order 13166, a landmark order that put language-based equity back on the national policy agenda for the first time since 1976 (Spolsky 2004). The order entitled “Improving Access for Persons with Limited English Proficiency” required an action plan for the provision of services to Limited English Proficient Persons from all agencies receiving direct or indirect federal funding. EO 13166 was a broad mandate that affected agencies from across the social service spectrum but it had a particularly profound impact in health services because of the ubiquity of federal funding sources in elderly, indigent, and emergency care via Medicare, Medicaid, and the Hill Burton and Emergency Medical Treatment and Services Acts. In response to this unprecedented impact, the U.S. Department of Health and Human Services issued guidance for health service organizations in 2001 through its National Standards for Culturally and Linguistically Appropriate Services or CLAS (OMH 2001). CLAS was a comprehensive document that mandated language assistance services at no additional cost to the patient and that made a series of additional recommendations for language assistance and cultural competence, many of which have now been incorporated into accreditation standards for hospitals and primary care clinics (The Joint Commission 2010). CLAS, while limited in its reach by U.S. Department of Justice guidance that exempted many providers from compliance (cf. Martínez 2009), brought the issue of language barriers in healthcare into greater focus. The Institute of Medicine’s report Unequal Treatment, furthermore, embedded language barriers in wider disparities that affect racial and ethnic minority groups and thus ensured that language barriers would remain a topic of intense scrutiny for years to come (IOM 2003).

The IOM report compiled a systematic review of the literature which showed that language barriers result in unequal medical treatment, disparate access to medical procedures, and uneven health outcomes among limited English proficient patients. A study conducted in the UCLA Medical Center emergency department in 1993 revealed that non-English speakers with long bone fractures were two times less likely to receive pain medication (Todd 1993). A study using the national level data set from the Study of Women Across the Nation (SWAN) found that non-English speaking women were three times less likely to receive preventive cancer screening (Jacobs 2005). Finally, a study of diabetes patients in northern California revealed that Spanish speaking LEP Latinos were at a 50% greater risk of developing end stage renal disease – one of the deadliest complications of diabetes (Karter 2002).

The compelling data presented within the framework provided by the IOM report together with the persistence of the Department of Health and Human Services in promoting

CLAS led to a series of groundbreaking national level initiatives. The Robert Wood Johnson Foundation's Speaking Together initiative, for example, consists of a network of 10 hospitals from coast to coast that work together to define performance measures and identify best practices in hospital interpreter services. The project has made significant gains in areas such as the reduction of wait times for LEP patients and the systematic recording of patient language preferences in the medical chart (Regenstein 2007). Kaiser Permanente (KP), on the other hand, has also made astounding gains in the improvement of language services for patients in its network. KP is the nation's largest not-for-profit health plan and nongovernmental integrated health delivery system that provides services to over 8 million enrollees. KPs language access approach has consisted of a three pronged strategy to improve interpreter services, optimize the use of bilingual staff, and improve the infrastructure for the translation of written materials in order to avoid redundancy and duplication of effort. The system has resulted in universal access to language assistance among its enrollees and one of the nation's most comprehensive collections of health information in languages other than English (Meyers 2009).

2.0 Theorizing Language Barriers

After nearly a decade of language access interventions, KP initiated a large scale study of diabetes patients enrolled in the system. The Diabetes Study of Northern California (or the DISTANCE study) is a unique research project that aims to tease out fundamental behavioral, social and economic factors that affect diabetes care and diabetes outcomes in over 77,000 KP enrollees through the use of a 184 item questionnaire (www.distancesurvey.org). The DISTANCE study promises to significantly enhance our understanding of the determinants of poor diabetes management and outcomes when access to care is held constant. Moreover, the study also provides researchers the opportunity to systematically explore the effects of limited English proficiency on diabetes treatment, access to care, and health outcomes when language assistance services are held constant. To date, the study has provided significant information that challenges our understanding of language barriers in healthcare and that invites us to re-articulate the language barrier problem in much more complex and nuanced terms. In short, the study has provided evidence that invites us to develop a theory of language barriers.

First, DISTANCE has shown us that language barriers are not limited to interactions in the clinic, but rather that they impact a patients' overall interaction with the health delivery system. A recent study examined the use of an internet patient-portal provided by KP that allows patients to email their doctors, check lab reports, make an appointment, and view information for family members under their care. The study showed that Latinos with limited English proficiency were 130% less likely to even register for the portal. Among those who did register, furthermore, Latinos were 80% less likely to log on to the site in comparison to non-Latino whites (Sarkar 2010). Second, DISTANCE has shown us that the effects of the language barrier extend far beyond the lack of communication. It shows us that language barriers have a direct impact on perceptions of discrimination in the clinical encounter. A recent study examined patient perceptions of clinical interactions among Latino English speakers, Latino Spanish speakers with a Spanish speaking doctor (language concordance), and Latino Spanish speakers with an English speaking doctor plus an interpreter (language discordance). The findings revealed that language discordant patients were a staggering 500% more likely to feel

discriminated against because of their ethnicity and their language (Schenker 2010). Third, DISTANCE has shown us that language barriers impact the ability of LEP patients to effectively change health behaviors and thus improve health outcomes. A recent study examined the effectiveness of glyceimic (or blood sugar) control among LEP enrollees with diabetes. Again, this study compared English speaking Latinos, language concordant Latinos, and language discordant Latinos. The results indicated that language discordant Latinos were twice as likely to demonstrate poor glyceimic control as measured by an HbA1c reading of greater than 9% (Fernandez 2010). Poor glyceimic control, of course, is associated with a more accelerated onset of diabetes complications such as kidney disease, limb amputations, and blindness.

From DISTANCE we learn that language barriers have serious and multiple consequences. From DISTANCE we learn that language barriers influence poor health outcomes through a variety of causal pathways. And from DISTANCE we learn that language barriers must be re-conceptualized within a more comprehensive sociolinguistic perspective as illustrated in Figure 1.

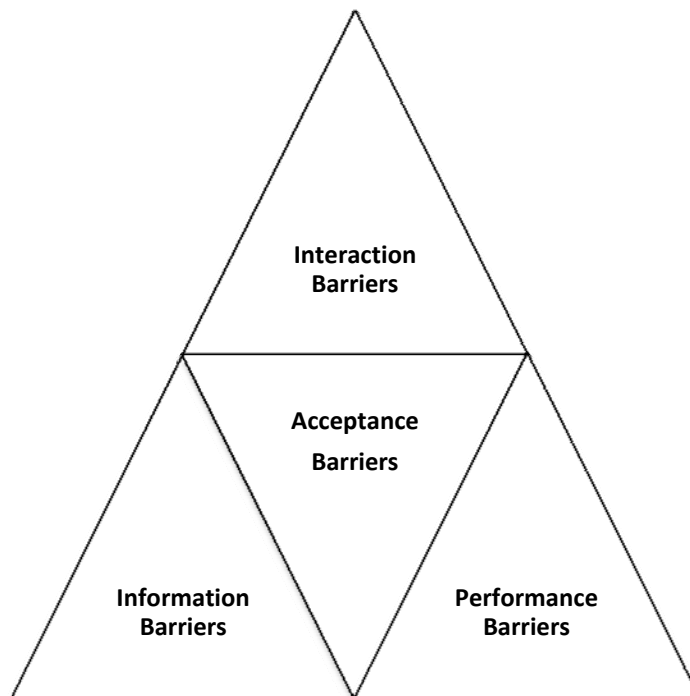


Figure 1. A theory of language barriers

Language barriers have typically been perceived as the communicative result of language difference in specific situations. The language barrier in healthcare has thus been defined as the inability of providers to construct an accurate medical and social history, to assess patients' beliefs about health and illness, to establish an empathetic connection with patients, and to reach agreement with patients on treatment decisions (IOM 2003, p. 141). On this level, then, language barriers constitute an **interaction barrier** that severs communication. However, language

barriers, as seen in the DISTANCE study, do not simply sever communication in the examining room. Instead, the effects of language barriers are pervasive within the health delivery system and in society as a whole. LEP patients are constantly and systematically disadvantaged in their access to the means and content of health information. Language barriers, therefore, also constitute an **information barrier** that restricts a patient's exposure to the channels of health information access and delivery. Inability to speak English is not a neutral fact. It is a fact that is laden with social, political and symbolic meaning. In previous studies (Martínez 2008), I have described the minimization felt by patients when they are forced to constantly disclose, "disculpame pero no sé inglés, ¿me lo puede decir en español?" Thus, language barriers are not particularized events that occur in a social vacuum. Instead, they are events that are fitted into wider social and political discourses and ideologies about language. These wider discourses and ideologies, then, fill up the events with meaning. I recall that in a study of implementation of language-in-healthcare policy in the Rio Grande Valley, a physician, when asked about how his practice provided services to patients with LEP, said to me: "This is the U.S., patients seeking care here should learn English or provide for their own translators – especially if Medicare or Medicaid is footing the bill" (Martinez 2009). This statement shows how political discourses and ideologies assign meaning to language barrier events and serve to identify LEP patients as less deserving. It is in this sense that I propose that language barriers also constitute an **acceptance barrier** that influences both real and perceived discrimination in interactions within the health delivery system. Finally, DISTANCE teaches us that language barriers constitute a **performance barrier** that, through a kind of reciprocal determinism, impinges on an individual's ability to adopt health behaviors that are conducive to optimal health outcomes (Martínez 2010a).

3.0 Responding to Language Barriers

If language barriers involve much more than simply an interaction barrier, the response to language barriers must transcend the dominant paradigm of language assistance. I view the language assistance paradigm as one that reproduces and regenerates dominant ideologies of the supremacy of English and the inferiority of all other languages through its fundamental metaphors of "deficit," "disability," and "handicap." A comprehensive response to language barriers must go beyond the socially reproductive paradigm of language assistance and foster instead a socially transformative paradigm of language acceptance of LEP populations through the affirmation of language skills within tomorrow's health care workforce.

3.1 *Medical Spanish for Heritage Learners*

Funded by the U.S. Department of Education's Fund for the Improvement of Post-Secondary Education, the Medical Spanish for Heritage Learners program (MSHL) is a demonstration project that endeavors to highlight the unique role of heritage language education in responding to the nation's most dramatic language challenge. The program consists of a four course sequence in Medical Spanish and Public Health and a 15-hour internship in a community health center that leads to an academic minor in Medical Spanish. The program merges methodological approaches from Language for Specific Purposes (LSP), Heritage Language (HL) pedagogy, and Community Based Learning (CBL) to produce advanced, targeted language

proficiency and contextualized understanding of the public health issues surrounding the health and health care of Latinos in the United States as shown in Figure 2.

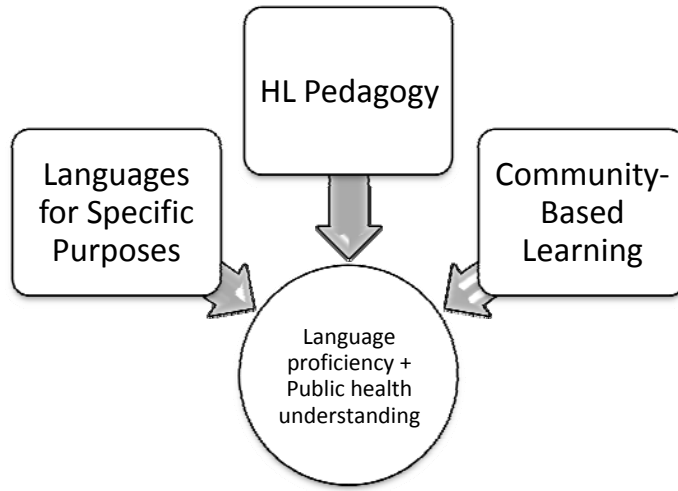


Figure 2. Pedagogical foundations of MSHL

From LSP, for example, we incorporate principles of content-based language learning and genre development. From HL pedagogy, on the other hand, we incorporate models of direct language instruction that draw on language practices developed in the home/community environment. From CBL, finally, we incorporate models of critical reflection and analysis that integrate classroom learning with community-based experiences.

As an academic minor, the MSHL program is targeted at undergraduate majors in all areas of the health sciences. Figure 3 shows student enrollments trending upwards since the program began in 2008.

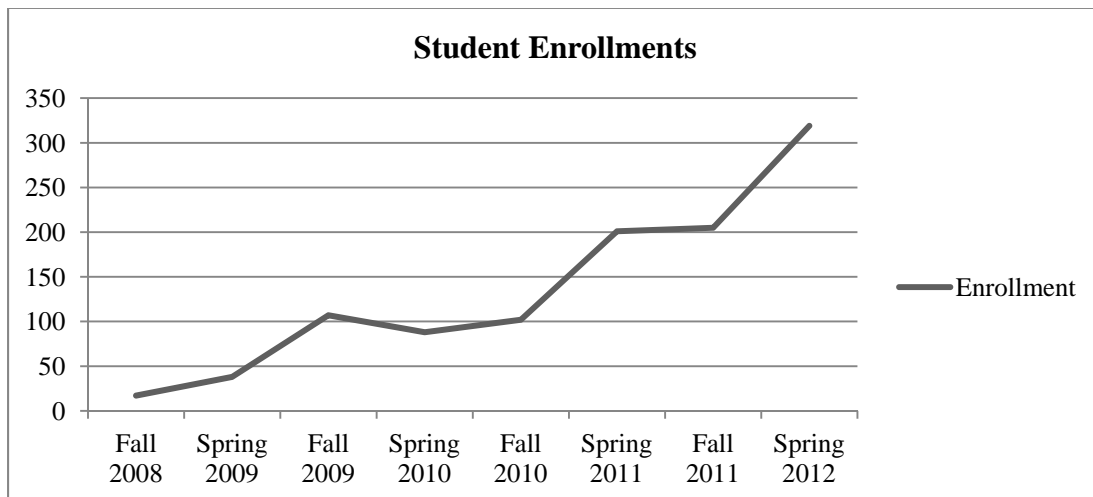


Figure 3. MSHL enrollments 2008-2012

The program draws students primarily from the nursing, pre-medicine, and pre-dental programs. However, more recently students in dietetics, rehabilitation studies, psychology, and pre-pharmacy have entered the program.

3.2 MSHL Program Activities

Unique to the MSHL is a highly contextualized approach to the development of medical terminology in Spanish. Our approach consists of developing medical discourses across genres with the intent of developing a high degree of flexibility in the students' sociolinguistic repertoire. So, for example, if we are teaching a unit on tuberculosis we would first contextualize the illness within the human respiratory system. We achieve this through readings of accessible scientific publications, e.g., the Merck Manual, and discussion of the major topics surrounding the illness and the anatomical and physiological system that it affects. Next, we contextualize the illness in its cultural dimensions. In the example of tuberculosis, we use a vignette from Tomás Rivera's classic novel *...Y no se lo tragó la tierra*. This allows students to relate the scientific discourses of illness to popular health discourses and beliefs. In doing so, students recognize the cultural meanings assigned to illnesses in a variety of contexts that uniquely affect Latinos in the United States. Finally, we contextualize the illness in its epidemiological dimensions looking at how the it affects populations as a whole. In this particular example, we engage the students in a reading from Pan American Health Organization's manual *Salud en las Americas* that discusses the epidemiology of tuberculosis along the U.S.-Mexico border (Martínez 2010b).

MSHL also strives to develop writing and translation skills within the context of proven strategies and theories of health promotion. Students explore topics such as health literacy and its relationship to language in conjunction with theories of health behavior change. These topics then become a framework for the evaluation of written materials in Spanish. Students are thus engaged in questions such as: How do health-related texts respond to health literacy challenges in Spanish speaking communities? What kinds of assumptions do health-related texts in Spanish make about environmental, cultural, and civic factors that are unique to Spanish speaking populations? Once students have mastered these concepts and are able to actively critique existing health promotion materials written in Spanish, they engage in a class project to translate health promotion documents for national and state level organizations.

Field trips and community-based activities are central to the MSHL curriculum. These activities allow students to engage directly with heritage language communities that are at greatest risk for sub-optimal health outcomes. In the Rio Grande Valley, there are over 1,000 such communities called *colonias*. A *colonia* is an unincorporated settlement that often lacks basic infrastructure such as sewage, sidewalks, access to a potable water supply, and access to metered power sources. Land is available for a minimal down payment and an extended, often indefinite, loan period. Residents often live in makeshift trailer homes or half-built homes. The vast majority of the *colonia* population is limited English proficient and undocumented. By visiting these *colonias*, students gain valuable public health perspectives that inform their medical discourse (cf. Martínez and Schwartz 2012).

The digital illness narrative project is designed as a capstone experience in which students collect information about a particular illness in their family or in their communities. After collecting information from various perspectives using refined in-depth interviewing

techniques, students develop a narrative designed to place the illness experience in its wider social context, to highlight the struggle of limited English proficient patients, and to elevate and honor the bravery and fortitude of the ill. Using digital technologies, students then create a digital story including a recording of the narrative, relevant photos or videos, and a musical track that is of importance to them. Digital illness narratives afford the students an opportunity to give voice to those who have been silenced by a system that does not speak their language and to understand language barriers and health inequality from a deeply personal and highly committed position. They also give students the opportunity to uncover “critical race counter-stories” that challenge and interrupt the dominant “blame the patient” master narrative (cf. Sandars 2009, Martínez and Schwartz 2011).

3.3 Learning outcomes in MSHL

Having highlighted the major activities that take place in the program, I would now like to share some of the results that we have been able to ascertain from our evaluation efforts. We have found that the Medical Spanish for Heritage Learners program brings numerous benefits to the students who participate in it. The benefits can be classified in four broad areas:

1. Development of medical discourse in Spanish
2. Development of medical interpreting and translation skills
3. Improvement of academic performance in the life sciences
4. Development of intersectional identities that integrate heritage language sociolinguistic histories with future professional aspirations.

3.3.1 Development of Medical Discourse

In order to assess student mastery of medical terminology, we developed an instrument that was applied diagnostically during the first week of class in the first Medical Spanish course. The instrument measured student ability to associate medical terms in Spanish with their corresponding term in English as well as the ability to define medical terms in Spanish. The instrument was administered again at the end of the semester to ascertain the relative improvement of students over the course of the semester.

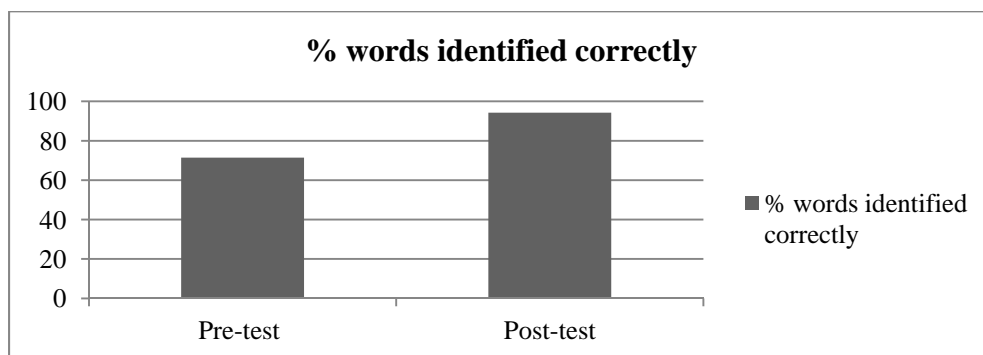


Figure 4. Pre/Post comparison of identification of medical terms

The data indicate that while students correctly identified a little over 60% of the terms at the beginning of the course, by the end of the course they identified over 90% of the terms correctly.

We also assessed a more active mastery of medical terminology in Spanish. We conducted entrance interviews with each student while enrolled in the first course of the sequence and exit interviews while they were enrolled in the last course of the sequence. Students were prompted to describe an illness or injury with which they had direct experience in both the entrance and the exit interviews. The interviews were transcribed and medical terms were identified in each entrance and exit interview. We calculated the mean number of medical terms used in both the entrance and the exit interviews. As seen in Table 1, students used Spanish medical terms over five times more in the exit interviews. We also conducted a paired samples t-test to determine whether or not the different means observed were statistically significant. Our findings show that the difference between the mean number of Spanish medical terms used in the entrance interview and the mean number of Spanish medical terms used in the exit interview was statistically significant at the $p < .05$ level.

Table 1. Pre/Post Comparison of Use of Medical Terms in Spanish

Medical Terms used in Spanish	Mean	Standard Deviation	Paired Samples t	Degrees of Freedom	Sig.
Entrance Interview	9.13	4.42	-7.06	7	.000
Exit Interview	55.75	19.51	-7.06	7	.000

3.3.2 Development of Medical Interpreting and Translation Skills

Student progress in medical interpreting was assessed through the evaluation of mock interpreting scenarios. Performance was measured at baseline (middle of the first semester) and at evaluation point (middle of the second semester). Performance measures included translation errors, false starts, code switching, and Spanish errors. Translation errors consist of mistranslated words (for example, rango for range), false starts consist of hesitations that result in a need for the student to request repetition, code-switching consists of words that are expressed by the interpreter without translation, and Spanish errors consist of words or phrases expressed inaccurately in Spanish. The improvement achieved by students can be seen in Figure 5.

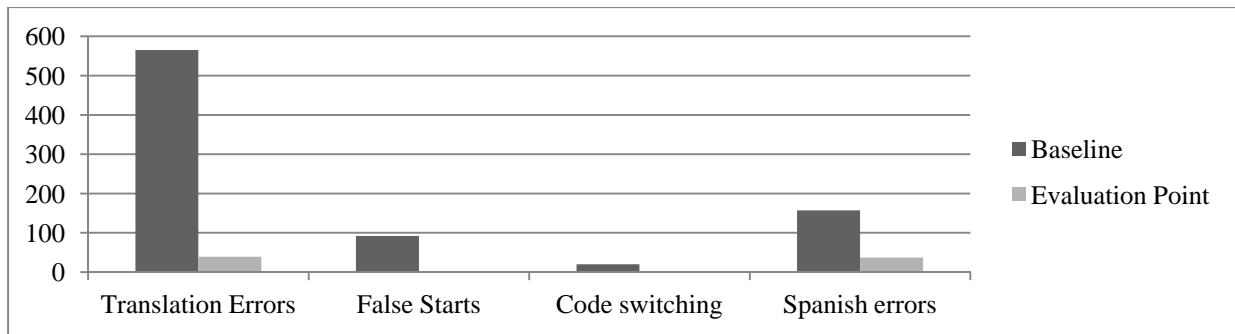


Figure 5. Pre/Post comparison of student performance in medical interpreting

These results suggest significant improvement in student ability to interpret accurately within clinical encounters. Translation errors and Spanish language errors were nearly eliminated after a full semester of instruction.

Direct instruction in medical interpreting is complemented in the Medical Spanish program with direct instruction in medical translation. Progress in medical translation was assessed through portfolio evaluation. Students assembled portfolios of medical translation over the course of the program. Portfolios included a sampling of the students' best translation work and a personal reflection on progress made and lessons learned in translation. Portfolios demonstrated 1) an increased ability in identifying units of meaning, 2) an increased awareness of Spanish grammar, and 3) an increased awareness of the need for Spanish translation of health information. In assembling portfolios, students were required to write a critical introduction highlighting their development as writers and translators. Student orientations to writing in Spanish also improve dramatically as students progress through the program. In order to assess writing and translation skills, we have adopted a portfolio approach where students collect written work throughout the four course sequence and assemble it in a portfolio. Students are required to write a cover letter that assesses the development of their own writing. Students demonstrate an unprecedented insightfulness in their self-assessment. Students mention, for example, the importance of reading in Spanish, the importance of translating for meaning, and the critical importance of written materials in Spanish.

3.3.3 Improvement of Academic Performance in Life Sciences

The MSHL program has also yielded some surprising results. Participation in MSHL did not only yield positive gains in Spanish language skills, but instead it also showed a measurable impact on academic performance in the life sciences. We analyzed student grade point averages in life science courses (including biology, anatomy and physiology, microbiology, histology, organic chemistry, clinical nutrition, and nursing courses) before enrolling in Medical Spanish and after having been enrolled in the program for one year. The result, seen in Table 2, showed an increase in mean GPA of .3 grade points. This represents a 10% increase in life science GPA within one year of enrollment. A paired samples t-test was conducted to ensure that the difference was statistically significant. The procedure affirms that the difference in mean GPA before and after exposure to MSHL is significant at the $p < .05$ level.

Table 2. Comparison of mean GPA in life science courses before and after exposure to MSHL

	Mean	N	SD	Sig
GPA before	2.58	87	.89	
GPA after	2.88	87	.86	.002

We also analyzed student performance on the verbal reasoning portion of the MCAT. We compared students who had been enrolled in Medical Spanish for at least one year and self-reported bilingual students who had not enrolled in Medical Spanish. The results, seen in the table below, showed that students who enrolled in Medical Spanish performed 32% better than students who did not enroll in Medical Spanish. An independent samples t-test was performed to determine whether the difference in mean performance among MSHL and non-MSHL students was significant. Our finding indicates that the differences in mean scores are significant at the $p < .05$ level.

Table 3. MSHL and non-MSHL comparison of performance on mock verbal reasoning portion of MCAT

	Mean	N	SD	Sig
MSHL	11.81	21	3.01	
Non-MSHL	7.94	18	4.62	.005

These data suggest that the Medical Spanish program not only prepares future health professionals for working with Spanish-speaking patients through advanced language proficiency and enhanced cultural competency, but that it also improves student performance in the life sciences and in verbal reasoning as they move through the pipeline towards their chosen health profession.

3.3.4 Development of Intersectional Identities

One of the most gratifying results of the project is the value that students place on their language abilities after completing the program. It is well known that medical education, at all levels, strives for the development of a compartmentalized or hierarchical identity. This refers to an identity in which one is first and foremost a doctor, and all other forms of identification are either incidental or subordinate. Recent work in medical education has questioned this goal, arguing instead that medical education should promote an intersectional identity in which doctors and nurses embrace the cultural assets derived from their own communities for the benefit of health and healing in those same communities (Tsouroufli 2011). The following excerpts from student exit interviews demonstrate how intersectional identity emerges in Medical Spanish students once they complete the program.

Pues antes pensaba, pues todos somos bilingües. No es algo muy grandioso, pero sí es, y sí va a ayudar mucho cuando sea doctora. (Cynthia)

In this excerpt, Cynthia describes how she used to view bilingualism as no big deal, but that now it is because it is an essential part of her work as a doctor.

Pues, me ha impactada bastante porque ahora sé que soy como una persona bilingüe. Porque antes era como que puro inglés y el español muy a veces lo hablaba. Y ahora, pues uso más el español y los términos médicos como por ejemplo con mi abuelita y con los doctores. Me ha hecho una persona más útil. (Jasmin)

Jasmin, on the other hand, describes how she uses medical terms now to help her grandmother understand her health conditions. For Jasmin, the program has also resulted in a much more positive assessment of her bilingual identity.

4.0 Conclusion

In sum, I would point out that language barriers continue to pose a significant public health threat to Spanish speakers in the United States, that the effects of language barriers must be viewed as socially pervasive and extensive in their impact on Spanish speakers, and that comprehensive solutions that go beyond a paternalistic model of language assistance and that move us towards a more socially transformative model of language acceptance and affirmation must be pursued.

As a final thought, I would like to share a quote from the Reverend Martin Luther King that has stuck with me since I began this line of investigation and that has shaped both my sociolinguistic and my public health perspectives.

Of all the forms of inequality, injustice in health care is the most shocking and inhumane.

Dr. King's words are a call to all of us who are concerned about the inequalities faced by Spanish-speakers in our country on a daily basis. For me, they are also a reminder that my best and most aggressive efforts must be strategically targeted at the most "shocking and inhumane" form of all inequality.

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