**Introduction**

- Title VI requires that Limited English Proficiency (LEP) patients receive language-concordant care (Chen, Youdelman, & Brooks, 2007).
- Few outpatient clinics have resources to provide language-concordant care to Spanish-speaking patients.
- LEP patients suffer from poor health outcomes when physicians and interpreters have inadequate training and resources in languages other than English.
- Few studies have measured and reported objective data on the success of language instruction during medical residency education.

**Background**

- Latinos comprise 17% of the US population; this is expected to increase to 25% by 2045. Texas’ Latino population is approximately 30% (U.S. Census Bureau, 2016, 2017).
- 5% of the US population speaks Spanish and does not speak English “very well” (U.S. Census Bureau, 2016).
- Even bilingual physicians and professional medical interpreters make clinically-significant communication errors (Flores et al., 2003; Prince & Nelson, 1995).
- Only three residency programs included a significant time commitment (100-120 hrs) in previous years (Cowden et al., 2012; Gonzalez-Lee & Simon, 1987; Grall et al., 2016).

**Hypotheses**

- Six months of participation in a Spanish-language track would improve objective measurement of medical Spanish proficiency.
- Improvement in proficiency would be inversely related to initial proficiency.
- Residents in this program would assess their own Spanish proficiency with relative accuracy.
- Residents who reported high motivation would see greater improvement in their objective scores than those that did not.

**Program Goals**

1. Increase CCLA score by 10% annually during the 3-year program.
2. All participants pass with 80% or higher after 3 years in the program.
3. Enable participants to communicate effectively with native speakers.
4. Foster cultural humility.
5. Provide a model for other residency and medical education programs.

**Methods**

- PGY-1 resident participants completed a baseline survey, 40-minute medical Spanish proficiency test (CCLA, ALTA Language Institute), and informal ACTFL proficiency assessment.
- Residents scoring 50% or greater on the CCLA:
  - Met weekly for Spanish tutorials (workshops) with bilingual physicians
  - Were assigned targeted grammar and vocabulary exercises
  - Were paired with a qualified bilingual interpreter
  - Used Spanish (as able) in patient interactions
  - Were encouraged to present patients to bilingual attendings in Spanish
- Test and survey were repeated 6 months later.

**ACTFL Language Proficiency Descriptions**

<table>
<thead>
<tr>
<th>ACTFL Level</th>
<th>Description</th>
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<tbody>
<tr>
<td>Distinguished</td>
<td>Can give sophisticated speeches at academic events and are only potentially differentiated from native speakers by a slight accent, a lack of extraneous cultural references, and extremely rare, insignificant errors.</td>
</tr>
<tr>
<td>Superior</td>
<td>Speak without hesitation, making few errors only in uncommon phrasing, and may use phrasing that resembles their native language rather than their target language.</td>
</tr>
<tr>
<td>Advanced</td>
<td>Able to talk about a wide variety of topics, especially ones that relate to them or recur in conversation often, but make regular mistakes and are not consistent in their accuracy.</td>
</tr>
<tr>
<td>Intermediate</td>
<td>Can hold simple conversations about familiar topics. Corresponds to two semesters of college study 8 years of study.</td>
</tr>
<tr>
<td>Novice</td>
<td>Able to parrot sentences or memorize lists of words. Corresponds to K-6 courses.</td>
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**Results**

<table>
<thead>
<tr>
<th>Residents</th>
<th>CCLA Objective</th>
<th>ACTFL Level</th>
<th>Survey Self-Assessment</th>
<th>ERAS Level (Descriptive)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>86% Advanced Low/ MID</td>
<td>7 (Advanced-Low)</td>
<td>4 (Advanced)</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>82% Intermediate High</td>
<td>3 (Novice-High)</td>
<td>1 (Basic)</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>72% Intermediate High</td>
<td>5 (Intermediate-Mid)</td>
<td>3 (Good)</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>61% Intermediate Low</td>
<td>4 (Intermediate-Low)</td>
<td>2 (Fair)</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>55% Intermediate Low</td>
<td>4 (Intermediate-Low)</td>
<td>1 (Basic)</td>
<td></td>
</tr>
</tbody>
</table>

**Conclusions**

- Residents’ self assessment at the time of residency application strongly correlated with their self-assessment at track entry (r = 0.94, p < 0.05); i.e., they did not inflate their proficiency rating when applying to the program.
- Other than one outlier, residents accurately predicted their objectively assessed proficiency on the baseline survey, and accuracy improved after 6 months.
- ACTFL assessment strongly correlated with the CCLA objective assessment (r = 0.91, p = 0.05).
- Motivation was not linked to improvement in this group (r = -0.02, p = 0.97).

**References**