



Development, Implementation and Evaluation of a Limited English Proficiency Curriculum

RESEARCH

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ABSTRACT

Background: Sixty percent of U.S. internal medicine (IM) residency directors report their program includes a curriculum focused on the needs of patients with limited English proficiency (LEP).

Objective: This quality improvement project sought to improve knowledge of best practices for caring for LEP patients by IM residents by implementing an educational curriculum.

Methods: Residents from three IM residency programs in a large academic health system were surveyed on their perceived LEP education and barriers at the beginning of the 2018–2019 academic year. A LEP curriculum was developed and delivered to interns of one of the programs. These residents were re-surveyed early in the following academic year.

Results: 118/392 (30%) residents completed the pre-curriculum survey. 35% of respondents reported frustration or stress while caring for LEP patients. 59% of residents reported deferring an interpreter for LEP patients less than half of the time. After implementation of the curriculum, a significantly higher percentage of residents responded they informed patients of LEP services at the beginning of the patient encounter (42% vs. 58%, $p = 0.03$), used “teach-back” (38% vs. 63%, $p = 0.002$), and felt confident in their ability to know if the patient understood the interpreter (25% vs. 42%, $p = 0.01$). There were no significant changes after implementation of the curriculum on the effect of time pressures, deferring of formal interpretation, and use of ad-hoc interpreters.

Conclusions: A LEP curriculum delivered as a brief workshop for IM residents increased perceived education in caring for LEP patients and heightened awareness of LEP patient rights to formal interpretation.

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INTRODUCTION

Individuals with limited English proficiency (LEP) are those who do not speak English as their primary language and have a limited ability to speak, read, write, or understand the English language [1]. Twenty percent of the United States (US) population speak a language other than English at home, and 8.6% of the US population are defined as LEP [2]. Patients with LEP are subject to health care disparities [3–5], experience suboptimal communication and satisfaction with their physicians [6–10], and cost of care may be increased [11, 12]. Patient safety for those with LEP may be adversely affected [13, 14]. These outcomes are mitigated by use of formal medical interpretation [15–21], though the literature demonstrates that residents do not consistently access formal medical interpretation even when readily available [22–24]. Internal medicine (IM) residents care for a significant percentage of patients with LEP [25]. In a survey of IM Program Directors, 70% reported that while their residents' panels were comprised of at least 10% of patients with LEP, only 60% of IM residency programs included a curriculum specifically targeted toward the care of patients with LEP [25]. Barriers to implementing such a curriculum included lack of time and faculty expertise.

Increasing the use of professional interpretation requires interventions at the level of the individual physician and the learning environment [23]. Residents who value the importance of communicating with patients in their preferred language are more likely to use interpreter services [24]. The amount of instruction that residents receive in caring for LEP patients is independently associated with the use of professional interpreters. In addition, informing residents that LEP patients have legal rights to formal interpretation is associated with a decrease in the use of patient's children to perform interpretation [22]. Resident skill with use of interpreters is predictive of their preparedness to care for LEP patients [26]. Those who report training in interpreter use report higher self-efficacy in knowing when an interpreter is needed, using formal medical interpretation [27], and also experience higher satisfaction in working with LEP patients [28]. In these studies, the details of trainings the residents received were not clear.

Recommended objectives for caring for LEP patients include teaching how language barriers can perpetuate health care disparities, working effectively with interpreters, and how limited language abilities can lead to adverse outcomes [29]. Most published curricula to improve care for LEP patients are designed for medical students [30–34]. Graduate medical education's approach to training residents in the care of patients with LEP have focused on training and assessment of residents' communication skills with patients and interpreters, and assessment of patient satisfaction [35–40]. There are few published curricular approaches in residency education that focused on the risk of utilizing limited language ability and use of ad-hoc interpreters [41, 42]. To our knowledge, there are no published reports on the development, implementation and assessment of a LEP curriculum in graduate medical education.

The objectives of our quality improvement project were to investigate perceived education and resident practices as they related to caring for patients with LEP by developing and disseminating a survey instrument, design a curriculum that addressed the essential components in caring for LEP patients, and determine whether the curriculum had an impact on knowledge and attitudes toward the use of medical interpretation for patients with LEP.

METHODS

During the 2018–2019 academic year we surveyed all residents of 3 IM residency programs of the Icahn School of Medicine at Mount Sinai in New York City to assess their challenges and their perceived training in caring for LEP patients. Our survey (Supplemental Content) was reviewed for content validity by an expert faculty member with a broad background in health psychology and expertise in patient-provider communication. The survey results revealed knowledge gaps and informed the curriculum. We then developed and implemented a LEP curriculum (**Box 1**). The curriculum was delivered to post-graduate year (PGY) – 1 residents in one of the internal medicine residency programs in one 90-minute interactive workshop (**Box 2**). The workshop was delivered to groups of 10 residents. Residents who participated in the curriculum were re-surveyed with the identical instrument early in the following academic year. Data were analyzed using both chi-square and t-tests. Our project was deemed a quality improvement

Box 1: Curricular Components: Caring for Patients with LEP

Engendering Empathy for Patients with LEP and Addressing Bias

- Immersion Exercise [30]
- Medical narrative of patient subject to bias and outcome [48]
- Mechanism to mitigate bias [49]

Review of Literature on Quality of Care, Patient Safety, and Health Care Disparities for LEP Patients

- Cost of care considerations [11, 20]
- Patient safety [13, 14]
- Healthcare disparities [3-5]
- The role of formal medical interpretation on mitigating the above [15-21]

How to develop effective and therapeutic relationships with patients despite language barriers

- Language concordant patient-physician relationship vs. discordant [10, 18, 50]
- Demonstration of ineffective vs. effective use of formal medical interpretation [51]
- How to utilize a formal medical interpreter effectively and appropriately [52]
- How to use Teach-back [43]

The importance of vetting healthcare professionals self-reported language ability

- Recognizing the limits of language ability and impact
- Review of the literature on residents using limited language ability [22-24]
- Mechanism of vetting self-reported language ability as well as obtaining formal medical interpretation status at the institution

Time and other barriers to delivering the best care to patients with limited English proficiency

- Review of challenges and barriers to delivering best care
- Systemic barriers: lack of written materials, time constraints, role models, lack of access to in-person interpreters
- Lack of formal training in caring for patients with LEP
- Discussion of how these barriers could be overcome

project by the Quality Improvement Committee in the Department of Medicine at Mount Sinai Hospital in February 2018, and thus Institutional Review Board approval was not required.

RESULTS

PRE-CURRICULUM SURVEY RESULTS

The pre-curriculum survey response rate was 30% (118/392). Demographics of these residents and their survey responses are summarized in **Table 1**. 35% of respondents reported that they frequently or almost always felt frustration or stress knowing that they had to care for a LEP patient. 59% reported that they deferred obtaining formal medical interpretation less than 50% of the time. 48% reported that they inform patients of the right to interpretation services at the beginning of the encounter, while 48% did so when they perceived difficulty. 39% reported they had received adequate education in techniques for eliciting a history from a patient with LEP and “Teach-Back.” 34.7% reported they were aware of Title VI of the Civil Rights Act of 1964. 55% reported using Teach-Back to check a patient’s understanding and accuracy of translation. 42% reported feeling confident in their ability to know whether the patient understood what the interpreter said. At least one resident reported fluency in 18 languages, with 20% (24/118) and 8% (9/118) reporting fluency in Spanish and Mandarin Chinese, respectively. Availability of interpretation services was reported to be highest for phone services in all care locations (**Figure 1**). Systemic barriers in accessing all forms of interpretation were reported; for example, there are sites where interpreter phones do not consistently work or are not consistently available. Residents reported limited cell service in some of the Emergency Department (ED) sites, and limited access to video interpretation in the ED.

Box 2: Workshop Format “Caring for Patients with LEP”

Introductions: Prompts (10 minutes)

- What were your reasons for choosing medicine?
- Where you were born?
- What is your language fluency and your use of that language with patients?
- Has your fluency ever been assessed? Have you interpreted for your colleagues?

Immersion Scenario and discussion (10 minutes)

- Adapted from: Green AR, Kenst KS, Gall GB Providing safe and effective care for patients with limited English proficiency. Course Guide- Citation 30
- Involves closing your eyes and imagining you are in a country where you don't speak the language, you are injured and require healthcare. This is followed by discussion of what it felt like and concerns/considerations.

Dyad discussion (5 minutes)

- Discuss a patient with LEP encounter where you were directly involved in or witnessed. What went wrong or went right? How did you feel? Have you ever seen a situation where patients with LEP have been at risk?

Group discussion and sharing dyad discussion (5 minutes)

Reading: Hiding in Plain Sight – Citation 48 (5 minutes)

Group Discussion (15 minutes)

- Consider your own implicit/explicit bias or witnessed implicit/explicit bias you observe around caring for patients with LEP. How can this bias be mitigated? What can you do when you observe that quality patient care is or at risk of being compromised?

Power Point Presentation (25 minutes)

- Legal rights of patients with LEP
- Literature on disparities, patient safety, cost of care, patient-physician communication
- Video presentation (AHRQ) on encounter gone wrong & then gone right
- How to effectively utilize formal medical interpretation
- How to vet language ability and become certified medical interpreter

Group discussion (15 minutes)

- Consideration of systemic interventions that could be implemented to support your care of patients with LEP
- Discussion of possible QI projects

POST-CURRICULUM SURVEY

40 PGY-1 residents received both the pre and post-curriculum survey. Response rates were 58% (23/40) and 48% (19/40) respectively. Demographics of the PGY-1 residents who completed both the pre and post-curriculum surveys and a summary of their responses are shown in **Table 2**. After implementation of the LEP curriculum, there were significant differences in responses to several of the survey questions (**Table 2**). A higher percentage of residents responded that they informed patients of LEP services in the beginning of the encounter (42% vs 58%, $p = 0.03$), were more likely to inform them of those rights even if a family member was present ($p = 0.008$), checked understanding with “teach-back” (38% vs. 63%, $p = 0.002$), felt confident in the ability to know if the patient understood the interpreter (25% vs 42%, $p = 0.01$), and were aware of Title VI (13% vs. 74%, $p < 0.0001$). There were no statistically significant changes after implementation of the curriculum in question responses that addressed the effect of pressures of time on accessing interpretation service, deferring of formal medical interpretation, and the use of a family member or friend to perform interpretation.

DISCUSSION

This project demonstrated that a brief curriculum was feasible and increased the likelihood that residents would report that they inform patients at the onset of the encounter of their right to formal medical interpretation. Residents' awareness of the Title VI of the Civil Rights

Residency Location (%)	
A	29.7
B	29.7
C	40.7
Race/Ethnicity (%)	
White	37.3
Black	2.5
Asian	33.9
Latino	12.7
Other/Prefer Not	13.6
Post-Graduate Year (%)	
1	46.6
2	28
3	24.6
Women (%)	47.5
Have you taken cultural competency training before? (%)	38
I have received adequate didactic training for: (%Y)	
Pacific Interpretation (phone)	77.1
Live Video	46.6
Live interpreter	44.1
Eliciting History W/ Interpreter + “Teachback”	38.9
I am aware of Title VI (% Y)	34.7
When do you inform re: LEP Services? (% Beginning)	47.5
Confident in ability to know when medical interpretation needed? (%Y)	86.4
How often do you defer medical interpretation? (% less than 50% of the time)	59
How do you check understanding? (% “Teach-back”)	55
Confident in ability to know if patient understood interpreter? (% Y)	42
If family member present, do you inform of interpretation rights? (1-5, 5 = Almost Always)	3.4
Have you ever used family member or friend to interpret? (1-5, 5 = Almost Always)	3.2
Have pressures of time interfered with accessing interpreter services? (1-5, 5 = Almost Always)	3.4
Have you experienced stress or frustration caring for patients with LEP? (% Frequently or Almost Always)	34.7

Table 1 Demographics and summary of survey responses of residents who completed pre-curriculum survey (n = 118).

Act of 1964 was heightened. Under this law, healthcare providers receiving federal funds are required to provide equal access for LEP patients. They were more likely to report receiving didactic education in techniques for eliciting a history for LEP patients, and to report the use of teach-back, the recommended approach to working with patients with LEP to check for understanding [43]. Not surprisingly, there were no changes in reported stress and frustration as no systemic interventions were made. While the curriculum had the components reported to increase the likelihood that residents will obtain interpretation, we did not see a significant difference in residents reporting that they deferred formal medical interpretation less than 50% of the time.

Our survey data were consistent with data found in earlier studies on residents deferring interpretation. Despite evidence that high quality patient-clinician communication can mitigate disparities [44], and nationwide emphasis on the National Standards for Culturally and

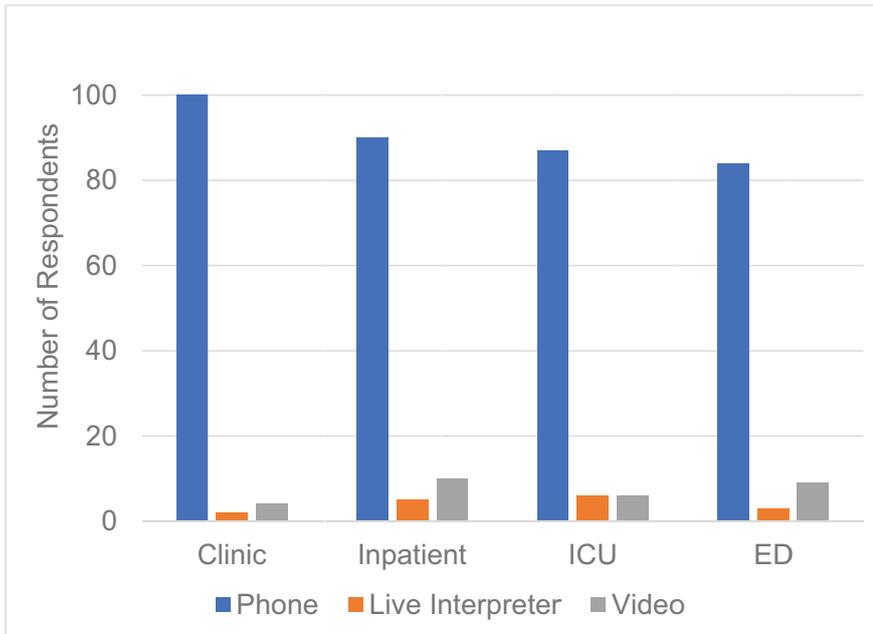


Figure 1 Availability of interpreter services by clinical location (ICU: intensive care unit; ED: Emergency Department).

	PRE (N = 24)	POST (N = 19)	P-VALUE
Race/Ethnicity (%)			
White	25	36.8	0.39
Black	0	0	
Asian	41.7	31.6	
Latino	12.5	15.8	
Other/Prefer Not	20.8	15.8	
Women (%)			
	45.8	31.6	0.04
Have you taken cultural competency training before? (% Y)			
	16.6	10.5	0.11
I have received adequate didactic training for: (% Y)			
Pacific Interpretation (phone)	54.2	68.4	0.007
Live Video	41.7	63.1	0.007
Live interpreter	20.8	47.4	0.002
Eliciting History W/ Interpreter + “Teachback”	16.7	57.9	<0.0001
I am aware of Title VI (% Y)			
	12.5	73.7	<0.0001
When do you inform re: LEP Services? (% Beginning)			
	41.7	57.9	0.03
Confident in ability to know when medical interpretation needed? (%Y)			
	79.2	94.7	<0.0001
How often do you defer medical interpretation? (% less than 50% of the time)			
	41.7	47.4	0.19
How do you check understanding? (% “Teach-back”)			
	37.5	63.2	0.002
Confident in ability to know if patient understood interpreter? (% Y)			
	25	42.1	0.01
If family member present, do you inform of interpretation rights? (1-5, 5 = Almost Always)			
	3	4	0.008
Have you ever used family member or friend to interpret? (1-5, 5 = Almost Always)			
	3.2	2.8	0.26
Have pressures of time interfered with accessing interpreter services? (1-5, 5 = Almost Always)			
	3.5	3.5	0.98
Have you experienced stress or frustration caring for patients with LEP? (% Frequently or Almost Always)			
	41.7	52.6	0.10

Table 2 Comparison of survey results, before and after implementation of limited English Proficiency (LEP) curriculum (Y: Yes).

Linguistically Appropriate Services (CLAS) in Health and Health Care [45], residents continue to defer formal interpretation. Education alone is not sufficient to ensure that patients are able to communicate with their physicians in their preferred language. Systemic interventions like assuring ready access to interpretation services, and changes in clinical workflow are needed. In an editorial [15] on the necessary conditions for achieving language access and quality care for patients for LEP, the author wrote: “However persistent use of ad hoc interpreters...leaves unanswered questions about why physicians and patients with LEP do not use professional interpreters even when they are available. Answering this question will require soliciting honest input from doctors, patients and family members.”

Our survey showed that residents continue to report time as a major constraint and source of frustration in caring for patients with LEP. Comments cited by residents in our pre-survey revealed possible answers to the question of why formal interpretation may not be accessed even when available. One resident reported that “pre-rounding utilizing interpreters is very difficult even if only 1–2 patients on the service are LEP.” Another resident pointed out that “it can take a long time to access interpreters if specific languages and/or dialects are needed,” and “clinic visits are not scheduled in such a way to accommodate the extra time needed to care for patients with LEP.”

Systemic barriers should be addressed to enable our trainees to implement equitable care. More time is needed to care for patients with LEP [46, 47]. Residents may not be able to access interpretation if they are not given adequate time with patients or do not have convenient access to appropriate technology. Possible interventions to address this barrier include lowering the admission cap or increasing the appointment times for LEP patients. Leaders in academic medicine should advocate for what residents need to deliver high-quality care every time to every patient. We believe programs should implement a curriculum to educate residents on the needs of LEP patients. The curriculum should address how disparities are mitigated and patient safety preserved with skillful and consistent formal medical interpretation for patients with LEP. Next steps include identifying possibilities for systemic intervention, as well as assessment of whether the outcomes found in this study are preserved over time.

Our study has limitations. As our assessment only used a survey, we were unable to objectively evaluate changes in resident behavior. In addition, our small sample size limits generalizability of these results. Though it is possible that other factors or educational experiences may have contributed to our post-survey results, we were not aware of other internal educational curricula with similar content.

CONCLUSIONS

Our QI project demonstrated that a brief, interactive workshop can increase resident awareness of LEP patient rights to formal interpretation, which may increase the likelihood that residents will inform patients of their right to interpretation services. It may also increase the likelihood of their use of teach-back which is an important mechanism to augment patient comprehension.

ADDITIONAL FILES

The additional files for this article can be found as follows:

- **Supplement.** Supplemental Online Content (Survey Instrument). DOI: <https://doi.org/10.29024/jsim.90.s1>
- **Raw Survey Data – Caring for LEP Patients.** Caring for Patients with Limited English Proficiency – Resident Experiences: Raw Survey Data. DOI: <https://doi.org/10.29024/jsim.90.s2>

COMPETING INTERESTS

The authors have no competing interests to declare.

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