¡Necesito un medico!, but No One Speaks Spanish: A Look at Medical Interpretation Policy

Caitlyn Edwards
University of Wyoming, cmille77@uwyo.edu

Follow this and additional works at: http://repository.uwyo.edu/honors_theses_16-17

Recommended Citation
http://repository.uwyo.edu/honors_theses_16-17/13

This Honors Thesis is brought to you for free and open access by the Undergraduate Honors Theses at Wyoming Scholars Repository. It has been accepted for inclusion in Honors Theses AY 16/17 by an authorized administrator of Wyoming Scholars Repository. For more information, please contact scholcom@uwyo.edu.
ABSTRACT:
The U.S. has a large, continually growing, limited English proficiency (LEP) population. This challenges healthcare providers by requiring interpretative services in order to provide any medical care. While utilizing friends, family, or uncertified bilingual employees or volunteers can be a convenient option for providing medical interpretation, it is not always the best option legally and medically. Certified medical in-person interpretation is the ideal method for interfacing with the LEP population, but it is not always viable due to a lack of availability and increased cost. Remote methods can reach additional areas, where in-person might not be available. However, current policies are not sufficient to fulfill the demand for certified medical interpretation.

A brief literature review of federal and state interpretation policies was completed, and four medical clinics in Wyoming were interviewed regarding their current policies and practices. Current policy is either not enforced or too ambiguous in many locales, including Wyoming. This lack of definitive policy can negatively impact medical care for the LEP population. Enforcing and broadening existing policies to make them more encompassing or utilizing new, innovative ideas such as interpretation through video conference or utilizing students as
interpreters can improve access and use of certified medical interpreters, which in turn improves healthcare and long-term outcomes for LEP patients.

**INTRODUCTION:**

According to the U.S. Census Bureau's 2013 American Community Surveys, there are approximately 61.6 million individuals, both foreign and U.S. born, who speak a language other than English in the home of which about 41% or 25.1 million were considered to have limited English proficiency (Zong and Batalova)¹. This is an 80% increase from 14 million in 1990 to 25.1 million in 2013. Reflecting the national percentages, Wyoming reported 38.4% of foreign-born population spoke English less than very well (Gambino, et al. 4). An article in *Modern Healthcare* elaborates further on the growing LEP population, “The largest rate of increase of people with limited English proficiency is in rural areas because recent immigrants often seek agricultural and other manual labor jobs in rural areas and small towns” (Rice). Wyoming’s rural, industrial, and agricultural setting has the potential to encounter more LEP population growth. Current trends show the LEP population is projected to grow in the U.S. This creates a language barrier that has numerous implications for society as a whole, the LEP population, and those who interact with them, especially medical care professionals.

The language barrier between a provider and a LEP patient can significantly impact patient care or keep people from seeking it entirely. An article in *Medical Post* remarks, "Language barriers don't just hamper care across the desk, but prevent patients from seeking care in the first place. … One in five Latino patients who speak limited or no English do not seek care when they need it" (Bauer). The amount of interpreting required for someone with LEP to make a simple doctor's appointment is astounding. It is needed for scheduling the appointment, filling
out any pre-appointment paperwork, conveying the problem, conducting the appointment itself, providing any post appointment instructions, making follow-up appointments, and getting medications from a pharmacy. This provides frequent opportunities for errors, especially if adequate interpretation is not provided, which can directly affect the quality of medical care provided. In a *Modern Healthcare* article, Greenbaum and Flores state, “When a language barrier existed… physicians typically performed more extensive diagnostic testing and offered more conservative treatment. When a professional interpreter was used… treatment protocols and costs were similar to those for English-proficient patients.” A study conducted by Brooks et al. reports, “Language barriers decrease quality of care and are a risk factor for adverse health outcomes. LEP patients who do not receive professional interpretation have longer inpatient stays and higher readmission rates” (30). Language barriers frequently decrease quality or delay care. Flores, et al. write, “LEP patients often defer needed medical care, have a higher risk of leaving the hospital against medical advice, are less likely to have a regular healthcare provider, and are more likely to miss follow-up appointments, to be non-adherent with medications, and to be in fair/poor health” (6). Interpretation is clearly imperative for LEP patients to receive and seek medical care.

Due to availability, and potential increased patient comfort and advocacy, bilingual friends or family can often be a convenient option to provide interpretation. However, Brooks et al. also points out, “Family members are not able to accurately translate medical jargon and only summarize what the physician says. …Issues of confidentiality… [arise] when a personal acquaintance gets involved in their medical care” (31). As the LEP population continues to grow in the United States, it is imperative that healthcare professionals and government agencies strive to bridge the language gap in order to provide quality medical interpretation to the LEP
population. By examining current medical interpretation policies and developing new policies to provide more effective language services, there will be more access to and higher quality healthcare available for the limited English proficiency population.

**BACKGROUND INFORMATION:**

The need for medical interpretation is prevalent throughout the U.S. and affects numerous people with numerous native languages, including native Spanish speakers. Flores, et al. relates, “Latino parents consider the lack of interpreters and Spanish-speaking staff to be the greatest barriers to health care for their children, and 1 out of every 17 parents in one study reported not bringing their child in for needed medical care because of these language issues” (Flores, et al. 13). However, due to the lack of certified interpreters, care providers use a variety of methods to provide interpretation.

*Types of Interpreters.* Typically, there are two main categories of interpreters: ad-hoc and certified. Greenbaum and Flores define ad-hoc interpreters as “untrained bilingual employees, family members, friends, or strangers pulled from the waiting room.” Ad-hoc interpretation has been utilized for years out of necessity.

Whereas, certified medical interpretation is a relatively new idea. The International Medical Interpreters Association (IMIA) was founded in 1986. In 2009, the IMIA started offering national certification through The National Board of Certification for Medical Interpreters, an independent division of the IMIA (“About Us”). The IMIA saw the need to provide better interpretation for better health outcomes, patient safety, and communication through nationally recognized standards designed in cooperation with the National Board of
Certification for Medical Interpreters. These standards of practice are to help “provide a defining baseline of expectations for consumers and practitioners. They provide a measure against which individual interpreters can monitor the quality of their own performance. They establish criteria for certification and/or entry into the profession, ensuring quality and consistency of practice” (International Medical Interpreters Association 10). The three main areas emphasized in these standards – interpretation and its complementary skills, cultural interface, and ethical behavior – provide a basic outline for the skills a certified interpreter must possess in order to minimize errors and provide quality interpretations.

In order to obtain certification, a candidate needs to successfully complete a medical interpretation program, prove oral proficiency in English and the target language through testing or education, and pass a rigorous set of written and oral examinations administered by the certifying agency. Certification provides third-party attested credibility to the interpreter’s skills instead of simply relying on the self-proclaimed abilities of ad-hoc interpreters. Both types of interpreters have advantages and disadvantages that can directly affect the quality of interpretation and as a result, the health care administered.

Advantages and Disadvantages of Ad hoc Interpreters. Ad hoc interpreters have the benefit of being more plentiful and readily available, especially when compared with certified interpreters, and there is typically little if any cost associated with their usage. Family members can help provide additional medical history or other pertinent background information that a patient may be unable to relay because of their medical condition. However, other factors such as patient comfort and abilities of the person interpreting need to be considered before utilizing an ad hoc interpreter.
One of the most important advantages to ad hoc interpreters is accessibility. According to Rice in a *Modern Healthcare* article, “Long waits and other access issues in getting a professional interpreter are disincentives for busy clinicians and other hospital staffers. So they go with the easiest thing to do at the moment – their own limited language skills, a family member, or whoever happens to be accessible, … they don’t readily realize the impact it can have” (Rice). The convenience associated with ad hoc interpreters can affect the comfort level of the involved parties and have potential clinical consequences resulting from errors in interpretation.

Even though having a family member or friend present could create a more welcoming/comforting experience for some patients due to pre-established trust, it can also increase discomfort for the patient. One patient related her experience with an ad hoc interpreter who happened to be her neighbor, “imagine you are getting a pap smear, and you are in that gynecologic position… It was really embarrassing because she was my interpreter but it was such a personal exam” (Brooks, et al. 31). The intimately personal nature of medicine can create awkward situations for the patients and their personal friend, acquaintance, or family member interpreters.

Care providers need to be particularly cautious when utilizing children as interpreters. In a news article from NPR, a physician reports on the problem, “you know, you’ve got a 10-year old in a gynecology appointment. …Is this where you would normally take a 10-year old? Not likely. Or you have a child – an adult child even – interpret a parent’s cancer diagnosis. That’s got to be highly traumatic” (Foden-Vencil). The trauma associated with interpreting for a family member can have a further impact upon the quality of the interpretation provided. Another case tells a similar story. A 17-year old girl was hit with a tennis racquet before going to the hospital
with a fever and increasingly painful headache. At the hospital, “the physician used the patient herself as the interpreter. She had to interpret the physician’s comments about her condition until she went into respiratory arrest. …Not only was the minor daughter acting as the interpreter… she was also interpreting complex medical terminology, and [her own] life-threatening conditions” (Quan and Lynch 5, 6). Due to generational differences, children of immigrants are especially prone to interpreting for their older family members ². Whether the situation is having a child explain a gynecological procedure, a severe diagnosis, or their own health problems, it can be a stressful situation for them and the patient and can increase the potential for errors to be made due to a lack of knowledge or attempting to maintain privacy.

Additionally, due to a lack of formal training, ad hoc interpreters are also more likely to make interpretation mistakes. According to a study by Flores et. al, “errors committed by ad hoc interpreters were significantly more likely to be errors of potential clinical consequence than those committed by hospital interpreters (77% vs. 53%)” (6). An error with clinical consequence or an adverse event is defined as, “any unintended harm to the patient by an act of commission or omission rather than by the underlying disease or condition of the patient” (Divi et al. 60). Errors having clinical consequences include but are not limited to: omitting information about drug allergies, omitting medication instructions or improperly translating dosage and application instructions, instructing a parent to not answer personal questions, omitting previous medical procedures already performed on the patient (Flores et al. 9). All of these clinical consequences can have significant impact upon the patient’s immediate well-being and affect their long-term outcome.

However, it is not just family or friends that commit errors; bilingual employees are frequently asked to interpret for LEP patients. Even with their medical knowledge, they are also
more prone to errors like other ad hoc interpreters. “The accuracy of the interpretation provided by these [bilingual] nurses found that approximately half of all encounters resulted in serious miscommunication affecting the physician’s understanding of patient symptoms or the credibility of the patient’s concerns” (Divi et al. 61). Just because someone claims to be bilingual does not necessarily mean he/she can interpret effectively.

According to a study by Flores et al., “health care providers were >11 times more likely to make false fluency errors when hospital interpreters were involved” (8). False fluency results from using an incorrect word or phrase that does not exist in a particular language or dialect. This can occur with medical jargon, idiomatic expressions, and contextual clarifications. For example, Flores et al. also note, “about three quarters (73%) of false fluency errors committed by hospital interpreters involved medical terminology, including not knowing the correct Spanish words for “level,” “results,” and “medicine,” and using the Puerto Rican colloquialism for mumps which could not be understood by a Central American mother” (9). All of these false fluency errors can cause confusion, misdiagnosis or other serious clinical consequences, and creates the potential for legal recourse for malpractice as well.

Furthermore, the certification or lack thereof also affects how a physician or healthcare provider views the interpreter. “All physicians… perceived family interpreters to be less skilled translators than professional interpreters” (Rosenberg et al., “Doctor – Patient communication” 288). A lack of vocabulary and experience causes ad hoc interpreters to interpret inaccurately. They also tend to bring their own perceptions into the interpretation, which influences the information exchange. “Physicians commonly complained that the family interpreter answered for the patient without translating the physician’s question, transmitting his or her own perceptions… and not transmitting the patient’s perceptions” (Rosenberg et al., “Doctor – Patient
communication” 289). The opposite can also occur. The family member can be treated as a robot, solely there to interpret from one language to the other, instead of being an active participant in the information exchange. The care provider’s perception of the interpreter can directly affect the patient’s care.

It is also important to note the physical appearance of the interpreter can also cause the patient or provider to mistake their language or cultural proficiency. This can cause the patient or provider to think the interpreter knows more or less than they actually do. For example, it can be assumed someone who “looks Mexican” has a higher proficiency in the language and culture than someone who does not “look Mexican,” regardless of actual language proficiency. Additionally, dialectal differences can also inhibit interpretation. For example, someone from Mexico or Central America may not understand some of the regional differences in pronunciation and terminology used in Chile or Argentina. Even if a person’s appearance gives the impression they know the patient’s language, it is not always true.

Overall, even though ad hoc interpreters can be convenient, they are not always the best option. “Experts do have one caveat: for medical translation, avoid family, friend and employees who aren’t already involved in patient care and who have not yet passed interpreter competency tests. We all need to be aware of liability and compliance issues. …If you just grab someone passing by, do they really know what you’re trying to convey? If they don’t understand the context, they can’t provide quality interpretation” (Rollins). Convenience does not always provide for the patient’s best interest.

Advantages and Disadvantages of Certified Interpreters. Certified interpreters, on the other hand, have different strengths and weaknesses. One of the worst disadvantages is a lack of
availability. Where they are available, there is not a consistent training level required for certification or they are too expensive to be utilized by smaller healthcare facilities.

The lack of trained medical interpreters is prevalent throughout the U.S. In a pilot study regarding language proficiency and adverse events by Divi et al, “Nearly half of the LEP patients did not receive interpreter services” (61). If a certified interpreter is available, they are not always accessible due to financial burdens. “Patients … expressed a perception that interpreter availability is dependent on insurance status” (Brooks et al. 31). Access to certified interpretation through language services can also be expensive with fees ranging from $1.50 per minute (Rice) to $44 per hour for 8 hours, when accompanied by a three year agreement for three interpreters, or $2.20 to $4.50 per minute for a telephone language service (Frates and Torres 30, 31). Utilizing an external interpretive service such as a generic telephone language service does not guarantee the interpreter is certified for medical interpretation. Instead, he/she might be certified in legal or business interpretation, creating a communication disconnect due to a lack of medical terminology knowledge. Knowledge of medicine is imperative for interpreters working in the field.

Even if there are certified medical interpreters available, they rarely receive continuing education due to a lack of standardized criteria to maintain certification. Flores et al. expound, “Fewer than one-fourth of hospitals nationwide provide any training for medical interpreters. Only 14% of US hospitals provide training for volunteer interpreters, and in half of these hospitals, the training programs are not mandatory” (10). Training requirements are integral to the validity of medical interpreter certification, especially when a study from the Annals of Emergency Medicine showed, “mistakes were less frequent among professional interpreters who had at least 100 hours of training” (Rice). This shows the need for healthcare facilities and
practitioners to utilize institutions such as the National Board of Certification for Medical Interpreters (NBCMI), to provide a standardized program for interpreters with adequate and appropriate training, experience, and knowledge.

Additionally, certified interpreters can assist with mediating any confusion or conflict resulting from cultural differences between the care provider and the patient because of appropriate training and background required to obtain certification. Yet, the role of a certified interpreter can also blur the delineation between interpreter and provider. In a study by Rosenberg et al. they found, “When the professional interpreter develops a relationship with the patient it fosters trust… this relationship can also be seen as detrimental, undermining the physician-patient relationship and the physician’s ‘symbolic power’ by attributing the interpreter some of the physician’s role as healer” (“Doctor – Patient communication” 290). While it is imperative that the interpreter obtains the patient’s trust, if this trust is misused, it can affect the interpretation and the patient’s perception and understanding of the medical advice being offered. Proper training can help eliminate this potential, inadvertent undermining of the physician’s power. In spite of this, in the same study, physicians reported preferring to work with certified interpreters due to higher quality and more succinct interpretations resulting from training. Overall, when using a professional, certified interpreter, healthcare providers felt the patient was answering for himself or herself and making his/her own decisions with no influence from the interpreter.

*HIPAA Considerations for the Interpreter.* It is important to consider the guidelines set forth under the Health Insurance Privacy and Accountability Act (HIPAA). HIPAA was established to protect individuals’ medical records and other personal health information. Under this act
certain safeguards are required of healthcare professionals to maintain privacy of personal health information and set certain conditions under which such information can be shared with and without patient authorization. According to HIPAA regulations, it is legal to share personal health information with both ad hoc and certified medical interpreters without the patient’s consent in the following circumstances: the interpreter works for the provider, the health care provider has a written contract or other agreement that is compliant with HIPAA’s requirements; or the patient agrees, does not object, or the health provider deems that the patient does not object using his or her professional judgment (HIPAA FAQs). Medical interpretation being covered under HIPAA provides additional leniency for providers to share information through an interpreter.

Despite this, issues can arise when utilizing an ad-hoc interpreter who is a friend or family member. “Ad hoc interpreters might not have sufficient knowledge… and may compromise patient confidentiality or violate the Health Insurance Portability and Accountability Act (HIPAA)” (Youdelman 429). A friend or family member violating HIPAA policy could be as simple as telling another family member or friend what had happened without the patient’s expressed consent. Thus, more liability and stress is put on the interpreter, as he/she must abide by the regulations protecting personal health information, especially if the patient they are interpreting for is a close family member or friend.

*Dynamics of Medical Interpretation.* In addition to the various advantages and disadvantages discussed above, there are numerous dynamics that affect interpreting such as the roles of interpreters, expectations of interpreters, and the consequences of making an error in
interpretation. In order to understand the dynamics of medical interpretation, it is important to understand the typical perceived roles and expectations of an interpreter.

According to a study from the University of Oklahoma, interpreters are typically expected to operate as, “a conduit, … an interpreting model that requires the interpreter to perform in a neutral, faithful, and machine-like manner” (Hsieh 721). This is the default role where they simply render information from one language to the other, with no omissions, additions, editing, or fine-tuning. Professional interpreters are more often constrained to the conduit role than family members who are interpreting because of the vested interest from the family member. They are also generally, “trained to use the first-person singular (speaking as if he or she were the original speaker), creating the illusion of a dyadic physician-patient communication and minimizing their [the interpreter’s] presence” (Hsieh 721). Always speaking in the first person can cause confusion regarding whom is actually speaking, the original speaker or the interpreter. While being a conduit is the perceived appropriate role of an interpreter, this study shows an interpreter is rarely a neutral entity. For example, “the interpreter may be motivated to deviate from the conduit role to facilitate provider-patient interactions” (Hsieh 722). Relegating an interpreter’s role to strictly acting as a conduit removes a critical component of patient care, advocating for his/her patients. “Sometimes, although the interpreter may be aware of the questions that the patient should ask, if the patient does not advocate for himself/herself, a conduit role does not allow the interpreter to initiate any comments” (Hsieh 723). This can result in the patient being confused or not fully informed. An interpreter can be hobbled by serving in only the conduit capacity as he/she can know what information should be given or requested, but are unable to initiate the information sharing if it does not develop on its own. An article by White and Laws elaborates further, “Ethical and pragmatic questions arise when insisting that the
interpreter not intervene when she or he perceives that, despite appropriate language interpretation, miscommunication is occurring” (482). Initiating this additional information departs from the traditional expected role and inhibits the collaborative efforts required for medical care. So, even though the robotic method of interpretation is the one encouraged by many, it is not always efficient or effective for providing appropriate medical care. “The conduit role is inadequate in cross-cultural medical encounters” (White and Laws 483). This robotic method of interpretation can also give the patient a negative impression towards the interpreter, especially when interpreters are trained to avoid making eye contact in order to emphasis the dyadic relationship between the care provider and patient. According to the same study by White and Laws, “several interpreters noted incidents in which the speakers believed that they were shy, indifferent, incompetent, or deceptive because they avoided eye contact during the interpreter-mediated interactions” (Hsieh 726). Instead, interpreters need to facilitate understanding and meaning between providers and patients; however, this can cause the interpreter to take on additional roles that have the potential to be detrimental.

Similarly, the conduit role does not allow for interpreters to provide any guidance or support in emotional situations creating an internal conflict for the interpreters themselves. An article by Rosenberg et al. elaborates on this, “Many professional interpreters experienced a contradiction between their social identity, as a community member, and their professional identity as an interpreter and a part of the health care system” (“Through interpreters’ eyes” 92). This contradiction can result in the interpreter feeling like a robot, unable to deviate from the expected conduit interpretation model, making some interpreters also feel like there is a lack of respect for their profession. When acting solely in the conduit role, interpreters fail to feel part of the healthcare process. “In interpreters’ eyes, their ability to act as integration and community
agents depends on physician or institutional will and not on patient interest so that in they act
mainly as a linguistic or system agent [conduit]" (Rosenberg et al., “Through interpreters’ eyes”
92). Even though interpreters play a pivotal role, confining them to a robotic function restricts
their effectiveness and ability to help.

Additional roles that can be taken by an interpreter are “the provider’s role; the patient’s
role; and taking other non-interpretive roles such as socializing with mothers or acting in one’s
alternate professional role” (White and Laws 482). These occurrences are frequent when support
staff acts as interpreters. “Bilingual support staffs often are conflicted about their responsibilities
and roles because they feel that their interpreting responsibilities may interfere with their other
jobs” (Hsieh 730). A study by White and Laws looked at the prevalence of these role exchanges.
They considered an interpreter taking a provider’s role whenever they engaged in five general
actions:

- Asking questions that were not initiated by the provider; editing the content of mothers’
  responses to the provider for information… they did not consider medically relevant;
- providing health education to the mother containing information not offered by the
  provider; discussing or ‘managing’ the case by talking about the present case with
  providers during the visit, without interpreting for the family; and altering provider
  recommendations, often by providing what appeared to be intentionally false
  interpretation (White and Laws 484).

These actions, while potentially justifiable through obtaining additional or clarifying
information, can also potentially inhibit the provider’s treatment plan.

Interpreters take on the patient’s role when they, “spoke on mothers’ behalf due to
familiarity with the families’ histories from prior interactions” (White and Laws 486). This can
create the potential for fabricated or misrepresented information. The last category White and Laws discuss is non-interpretive roles such as social interactions unrelated to the purpose of the visit. This can cause miscommunications due to excluding the patient or physician from the conversation. The study found that taking the provider’s role was most frequent, especially amongst bilingual staff. “The power of bilingualism was being overtly used. …Bilingual staff who have substantive roles in patient care have an inherent conflict of interest when acting as interpreters” (White and Laws 492). Any of the above role exchanges can affect the medical care of the patient negatively or positively. While a conduit role itself is inefficient, interpreters need to be cautious to not change their role in the interaction and manage all aspects of interpretation including advocating for the patient when necessary.

Methods of Interpretation. There are various interpretation methods in addition to in-person. Two of them are considered remote methods and are telephone and videoconference interpretation. Each method has advantages and disadvantages with varying degrees of effectiveness. A comparison study by Price et al. remarks, “While in-person medical interpretation by trained interpreters is considered the gold standard when patient-clinician language concordance is not possible, numerous factors limit use in clinical settings. …Remote methods including telephone interpretation and videoconferencing mediated interpretation, which allows for two-way audio-visual communication… are increasingly used to increase access where in-person interpretation is unavailable” (226). Both remote methods are prone to technical difficulties that can interrupt interpretation encounters. There can also be additional expenses such as a preset per minute rate, which can shorten interview length to help keep costs low. Be that as it may, using a combination of methods can help increase patient and care
provider satisfaction and provide better alternatives to using ad hoc interpreters or not providing any language service.

The most popular form of remote method interpretation is over the phone interpretation (OPI). It is easily accessible and relatively easy to use. The care provider calls an interpretive service and is connected with an interpreter for the requested language. Then a conference call format, speakerphone, or dual handsets are utilized to provide the platform for interpretation. A study by Dowbor et al. remarks that OPI provides, “improved patient-provider relationships, comfort and privacy, but also an increased capacity and likelihood to schedule follow-up appointments, follow health care providers’ instructions, disclose information, ask questions, and recommend the health care organization to family and friends” (7). It can also help maintain confidential communication regarding any sensitive or emotionally distressing information.

However, there are other factors that have significant impacts upon interpretation such as a lack of visual communication and increased difficulty for some patients and situations. The aforementioned comparison study by Price et al. states, “Significantly fewer [care providers] were satisfied with their ability to establish rapport or facilitate clinician understanding about the patient’s cultural or social background via telephonic interpretation” (228). The lack of visual communication can have a major impact upon the interpretation, as facial expressions and other non-verbal cues are lost. In addition, respondents in various studies report that over the phone interpretation is difficult for elderly patients who may suffer from hearing problems, and if they also have dementia, it can increase confusion and discomfort (Foden-Vencil). Similarly, another comparison study, by Locatis et al. reports, “providers considered the phone the more distracting remote method. …The most frequent reasons providers felt the phone was distracting were poor audio, its lack of visual channel, and movement and/or use of hands were restricted” (348).
Overall, over the phone interpretation seems to be best suited for “supportive, acute and chronic care” (Dowbor 7). Scenarios that require substantial interpretation for educational or psychosocial reasons need a more comprehensive interpretation method.

One option that provides the accessibility of OPI and the visual component of in-person interpretation is through videoconferencing. Providing the visual component that is lost during OPI can help establish rapport and provide additional insight into a patient’s socio-cultural background. Ideally, this requires a web-based platform where care providers can be linked to interpreters over high-speed Internet, and appropriate camera and monitor placement so eye contact is not infringed. Videoconferencing interpretation requires a significant amount of technology. The technological requirements associated with videoconferencing can delay interpretation due to set-up time. There is also high risk for technological difficulties delaying the interpretation.

Nonetheless, with the proper technology videoconferencing can be a viable option for providers in rural areas. “Advantages of videoconferencing compared with on-site interpreters are ease of interpreter access for uncommon languages, especially in rural areas, and access to interpreters at short notice and out of standard clinic hours” (Schulz et al. 398). In a study by Schulz et al. that compared videoconferencing to other interpretation methods, they found, “Ninety-eight percent of patients were satisfied overall with the use of an interpreter by video. When comparing videoconference interpreting with telephone interpreting, 82% of patients thought having an interpreter via video was better or much better, 15% thought it was the same and 3% considered it worse. Compared with on-site interpreting, 16% found videoconferencing better or much better, 58% considered it the same and 24% considered it worse or much worse” (395). Even though videoconferencing shows high satisfaction rates and has the potential to fill
gaps in language services, the technological requirements and associated difficulties and
expenses can potentially limit its effectiveness.

Consequences of Missed Interpretations. Improper medical interpretation, an error with clinical
consequences, can occur using any of the aforementioned methods and can result in drastic
consequences, not only for the patients themselves but also for the care provider and facility.
Consequences of missed interpretations were the catalyst for certifying medical interpreters.
There are numerous cases that illustrate the dire consequences that can result from an
interpretation error.

For example, one such case happened in 1980 when an 18-year-old baseball player was
taken to a hospital in a coma. His family used the word “intoxicado” to describe what had
happened. However, this term can be translated as ingesting something that caused the illness.
This missed interpretation resulted in a misdiagnosed brain bleed, which ultimately left the
patient a quadriplegic (Foden-Vencil). Misinterpreting one word severely changed a young
man’s life.

Another case occurred in Colorado Springs, Colorado, when a hospital failed to interpret
the risks associated with removing a kidney from a 2-month-old. The infant suffered complete
kidney failure because of it. Documents in the court case stated, “the parents did not understand
the very significant risks of the procedure, including complete kidney failure and a life of
dialysis and kidney transplants, nor were they informed of alternatives to the surgery, including
monitoring the kidney for months” (Chacón). In this case, the patient’s older sister provided
interpretation for her parents saying her sister’s kidney needed removed, but the risks and
alternatives were not explained. Similarly, consent documents were also not translated for the
parents. This case resulted in a 2-month-old being put on dialysis while she awaited a new kidney.

In Washington State a wrongful death suit resulted from misinterpreting an address during a 9-1-1 call. The dispatch center connected the call to an interpretation service when the patient’s husband called to report his wife was having difficulty breathing. The interpreter misinterpreted the man’s address which resulted in the ambulance taking over 26 minutes to respond, arriving 14 minutes after his wife had taken her last breath. The county dispatch center does not allow any of their bilingual dispatchers to translate and instead utilizes the telephone service that requires all their interpreters to be certified. The case was settled for $3 million (“Washington: Lawsuit Claims Interpreter”). There are countless cases like the ones above that have changed the lives of patients, their families, care providers and anyone else involved with the case.

According to a publication from the National Health Law Program \(^4\), in 35 claims from January 2005 to May 2009, malpractice insurance carriers “paid $2,289,000 in damages and $2,793,800 in legal fees. …Related to the failure to provide appropriate language services” (Quan and Lynch 3). Patients involved in these cases suffered from death or irreparable harm as a result of language interpretation errors or a lack of interpretation. In the majority of these cases, 32 of the 35, competent interpreters were not utilized, and in 12 of the cases, family members and friends provided interpretation including minor children in two instances. In addition, “nearly all of the cases demonstrated poor documentation of a patient’s limited English proficiency or the need for an interpreter” (Quan and Lynch 3). Even though removing all errors associated with interpretation is not feasible, they can be mitigated through adequate and
appropriate policies that promote quality language services and care to the patient and protect the care providers and interpreters from legal liability.

**Medical Interpretation Policy:**

There are policies at the federal, state, and local levels pertaining to medical interpretation practices. Some of them are significantly more comprehensive than others, but overall there seems to be an insufficiency of policy and policy implementation addressing language services for LEP patients. An article by the director of the National Language Access Advocacy Project, Mara Youdelman says, “Although the breadth of existing federal and state language access laws might seem sufficient, the lack of comprehensive implementation and enforcement leaves millions of patients with limited English proficiency forced to accept a lower quality of care than English speakers receive” (424). It is imperative policies be examined, enforced, and new ones created to provide better healthcare services for the limited English proficiency.

**Current Federal Policy.** Currently there are some encompassing Federal policies that pertain to medical interpretation. The first one is Title VI of the Civil Rights Act from 1964, which states, “No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance. …In interpreting Title VI, the Supreme Court has treated discrimination based on language as equivalent to national origin discrimination” (Chen et al. 362). Title VI of the 1964 Civil Rights Act is the broadest policy requiring accommodations for limited English proficiency patients in health care. Not providing language services is considered discrimination and therefore violates an individual’s civil rights.
The Department of Health and Human Services (HHS) created further policies elaborating upon the role of Title VI in healthcare. In 1980, they stated, “no person may be subjected to discrimination on the national origin in health and human services programs because they have a primary language other than English” (Chen et al. 363). HHS also set forth standards for Culturally and Linguistically Appropriate Services in health care, “Health care organizations must offer and provide language assistance services, including bilingual staff and interpreter services, at no cost to each patient/consumer with limited English proficiency at all points of contact, in a timely manner during all hours of operation” (Youdelman 425). HHS clarifies the ambiguity presented in Title VI as to how language services need to be integrated into healthcare for patients with limited English proficiency.

Additional federal policies have increased language service requirements for healthcare facilities. One such policy requires all notices of federal mandated obligations must be posted in English, Spanish, or other languages spoken by 10 percent or more of the population served by the health care provider (Youdelman 425-426). In August 2000, President Clinton issued Executive Order 13166, *Improving Access to Services for Persons with Limited English Proficiency* that, “reiterates Title VI requirements for federal fund recipients and directs all federal agencies to ensure that their own programs provide equal access to LEP individuals” (Chen et al. 363). This Executive Order was upheld three years later under President Bush, but the Office for Civil Rights Policy Guidance accompanying it was revised to “balance the requirement that federal fund recipients must take reasonable steps to ensure LEP people have meaningful access to programs and activities with the agency’s reluctance to impose undue burdens on small businesses, local governments, or small nonprofit organizations” (Chen et al. 363). This removed the expectation that smaller institutions with smaller overall budgets
receiving federal funding had to require the same level of language services provided by larger institutions with larger budgets. However, health care institutions needed to verify any resource limitations before limiting language assistance.

Even though there is federal funding available to assist with providing language services, the amount of money spent on language services is astounding. In 2002, the Office of Management and Budget, “estimated that U.S. hospitals’ annual costs for providing interpreter services was $78 million for inpatient visits, $12 million for outpatient visits and $8.6 million for emergency department visits” (Rice). Similarly, the American Medical Association reported survey findings saying, “costs of $150 or more for interpreter services often exceeded a physician’s payment for the visit, presenting what the AMA called a ‘significant hardship’ for practices” (Rice). Many healthcare providers feel this expense is a result of the federal policies being unfunded directives that many healthcare institutions cannot afford. This is especially problematic in rural areas where access to language services is even more limited, which can accrue even more costs in order to uphold the federal mandates.

Similarly, the National Council on Interpreting in Health Care (NCIHC) has enacted standards for medical interpretation in order to promote and improve language access in healthcare through four main goals.

1) Establishing a framework that promotes culturally competent health care interpreting, including standards for the provision of interpreter services in health care settings and a code of ethics for interpreters in health care.

2) Developing and monitoring policies, research, and model practices.

3) Sponsoring a national dialogue of diverse voices and interests on related issues.
4) Collecting, disseminating and acting as a clearinghouse on programs and policies to improve language access to health care for limited English proficient patients

(Mission, Goals, and Values)

The NCIHC refers to the certification standards developed by the IMIA and used by the NBCMI. Federal policy provides general oversight for language services in health care, but because they are not all encompassing and states differ greatly on their needs for language services, states have enacted policies for medical interpretation as well.

*Current State Policy.* State laws tend to differ greatly providing additional protection in some areas, while leaving others unprotected. In a study from the National Language Access Advocacy Project, Youdelman identified six main focuses for state laws:

1) Comprehensive laws – address all health care providers or all state agencies.

2) Training for health professionals – emphasize educating health professionals about language access. Recent laws focus on how cultural and language barriers can affect the quality of care with the goal of increasing clinicians’ support for and use of language services.

3) Facility licensure – a number of states mandate language services as a condition of facility licensure.

4) Particular populations – every state has laws addressing specific populations – women, children, people with mental illnesses, or older Americans. … These range from translating patients’ rights notices to mandating interpreters for commitment proceedings.
5) Interpreter competency – requiring development of interpreter standards, mandating the use of certified or competent interpreters.

6) English-only laws – thirty states have enacted English-only laws that declare English to be the official or common language of the state and require all state activities to take place in English (Youdelman 426-429).

These general categories demonstrate the diverse range of state laws for language services and in turn, the care received by and offered to LEP patients. The National Health Law Program identified two specific Wyoming state regulations that pertain to language services.

Wyo. Code R. § 024-058-005 (4)(b) – A speech-language pathology assistant may serve as an interpreter when working with LEP clients and may assist the Licensee during test administration.

Wyo. Code R. §§ 048-083-001 (6)(v), 048-083-005 (6)(b)(ii) – “Native Language,” when used with reference to a person of limited English speaking ability, means the language normally used by that person, or in the case of an infant or toddler, the language normally used by the parents(s) of the infant or toddler. (Perkins 135).

In addition to the above regulations, there are also Medicaid requirements for interpreters. “Interpreters shall adhere to national standards developed by the National Council on Interpreting Healthcare (NCIHC), to include accuracy, confidentiality, impartiality, role boundaries, professionalism, professional development, and advocacy” (State of Wyoming Department of Health Rules and Regulations). When compared to other states, Wyoming has considerable fewer language service regulations. For example, Colorado has 18 different state policies regarding language services covering a variety of aspects including mental health, health professions standards/requirements, services for the elderly, patient client rights, translation,
long-term care, credentialing or profiles for health professionals, children’s health, Medicaid
early and period screening, facilities for mental health, sterilization-abortion, consent, Medicaid,
hearings/legal proceedings, people with disabilities, and government agency requirements
(Perkins 33-35). Some show the large discrepancy between various states for language services
policy. Some offer a wide range of coverage with various aspects being considered in some
states but not in others.

Even though there is a large range with state laws, there is one that exists in every state
with the potential to provide civil liability protection for medical interpreters. This law is
frequently referred to as the Good Samaritan Law. Similarly to other state laws, the Good
Samaritan Law differs amongst various states with varying levels of coverage and protection. In
Wyoming, it reads, “Any person licensed as a physician and surgeon under the state of
Wyoming, or any other person, who in good faith renders emergency care or assistance without
compensation at the place of an emergency or accident, is not liable for any civil damages for acts or
omissions in good faith” (WY, 1-1-120). This essentially protects medical professionals
from civil liability who are sued for malpractice or negligence as long as they were acting as a
“good Samaritan.” Its protection is enacted during a medical negligence trial as a reactive means
of protecting the care provider. “Rather than being prospective, Good Samaritan laws are
retrospective in nature. This means that the volunteer responder has no guarantee at the outset
that the statue will cover his action” (Rosenbaum et al. 239). This can create either a false sense
of security by care providers or prevent care providers from providing care due to concerns of
not being protected legally. This could apply similarly to volunteer interpreters. However, the
wording of the Good Samaritan law is ambiguous as to whether or not medical interpreters
would be protected, especially since the law specifically states its protection is only valid during
an emergency or accident, which furthers the ambiguity as to whether or not the Good Samaritan Law could provide legal protection for interpreters. Even though medical interpreters could be utilized during a declared emergency such as a natural disaster or at an accident scene, they are also needed after the initial incident, which is a time period not covered by the Good Samaritan Law. The ambiguity of the Good Samaritan Law could prevent capable medical interpreters from offering their services either during an emergency or volunteering at free health clinics for low-income patients.

Current Local Policy. At a local level, hospitals, clinics, and other healthcare facilities have their own medical interpretation policies. After interviewing four clinics in Wyoming, who wished to remain anonymous, policies seemed to vary in scope and practice, mirroring the vagueness of state policies.

None of the four clinics interviewed required certified medical interpreters for all encounters with LEP patients. One reported requiring certified interpreters for any complicated procedures but utilized some sort of ad-hoc interpreter for most day-to-day encounters. Typically, a third-party service provided interpretation at this clinic for complicated procedures, but the clinic did not know the certification level of the third-party interpreters.

For all of the clinics interviewed, ad hoc interpreters in various capacities – bilingual staff, friends, or family – were the most frequent interpretation method for daily interactions with LEP patients. Two of the clinics reported this was due to a lack of accessibility to certified interpreters and/or a lack of funds if certified interpretation services were made available. A care provider at one clinic stated they would prefer to work with certified interpreters due to the specialized knowledge, experience, and professionalism associated with certification, but this is
rarely an option in their locale. Two of the four clinics agreed certified medical interpretation would be ideal.

However, self-reported policies did not reflect this opinion. Overall, clinics frequently expressed existing language services (ad-hoc interpretation) fulfilled their needs. Only one knew of a hard copy policy regarding interpretation. It did not require the use of a certified interpreter; instead, it was left to the patient’s discretion as to whether they would like an interpreter provided for them, typically over the phone, or the patient could provide their own interpreter. In these clinics’ responses, there is a general impression that certifying existing bilingual employees is not needed or the certification process would take too much time and not be worth the investment. Two clinics responded positively to potentially receiving monies from the government or other organizations to provide language services. Conversely, two clinics expressed no interest whatsoever in any outside assistance for developing a more comprehensive language services program, again stating their current practices are sufficient. Similarly, one clinic also mentioned any assistance from the government would not be beneficial for them, as policy changes at the state or federal level would not apply to LEP patients who are also undocumented workers.

Overall, there seemed to be ambiguity regarding language services. This could be a reflection of the overall opinion from providers regarding medical interpretation as expressed in an article in *Modern Healthcare*, “physicians and hospital staff often ignore hospital policies on using qualified interpreters, typically because of time pressures, lack of knowledge about the availability of interpreters or procedural difficulties in arranging them” (Rice). Even though many desire certified interpreters, they are seldom utilized even if a system is in place such as
over the phone interpretation either due to the time, cost, or other factors. Thus, local policy tends to lean towards utilizing some form of ad-hoc interpretation.

**Future Policy Changes:**

After looking at the intricacies of medical interpretation and examining current medical interpretation practices, there is a glaring lack of oversight ensuring quality medical interpretation especially in rural areas such as Wyoming. There are several inhibitors to utilizing certified medical interpreters such as budget and lack of access. However, there are options such as new technologies like videoconferencing, or potential policy changes that could provide more all-encompassing interpretation services for all healthcare facilities and providers.

One of the greatest threats to medical interpretation is funding. “We need a financing mechanism for language assistance services across payers, which would lessen the extreme institutional variability in service that currently exists” (Chen et al. 365). While federal regulations do not require smaller healthcare institutions with smaller budgets to provide the same interpretation services as larger institutions, there should still be some sort of system to provide language services to all institutions, regardless of size and budget. A reimbursement mechanism could help alleviate costs to healthcare providers. According to an article by Chen et al., “Medicaid and the State Children’s Health Insurance Program (SCHIP) have indicated that language services are eligible for federal matching funds. However, each state determines whether and how its Medicaid program will provide reimbursement for interpreting, and providers cannot receive payments for these services unless the state chooses to provide them” (365). The same article states that Wyoming currently reimburses at a fee-for-service rate of $45/hour in 15-minute increments, and all interpreters must abide by the NCIHC Code of Ethics.
Furthering this structure to a more comprehensive reimbursement plan might provide additional encouragement for health care institutions to provide interpretation from certified interpreters, especially when considering the fees of interpretation services mentioned earlier in this report can range from $44 an hour for 8 hours minimum, upwards to $270/hour at a rate of $4.50 per minute. The current reimbursement scheme may not offset the cost of interpretation enough for smaller, more rural clinics with limited access to interpretation and funds.

Another method of providing interpretation is an innovative new approach that Harborview Medical Center in Seattle, Washington, began in 1994 called Community House Calls. The program changed “simple translation services into comprehensive cultural intervention involving health care providers, patients, support services and local ethnic communities” (White “Health Care Spoken Here”). The program utilizes bilingual, bicultural staff members to not only serve as interpreters but to also to help serve as cultural mediators. “Caseworker/cultural mediators play an integral role, providing casework, interpretation and cultural mediation services in addition to navigation and advocacy in health, social services, education, immigration and legal venues” (Pierre-Louis). The employees combine work to bridge language gaps as well as integrate ethnic and cultural considerations into health care for limited English proficiency patients. However, this style program would require an immense start-up investment that could take years to pay off.

Healthcare providers also need to understand the importance of developing and following policies for interpretation services and also be educated on existing policies at all levels. Chen et al. states, “We need healthcare providers to understand the deleterious effects of language barriers and the benefits of working with trained medical interpreters, so they advocate for language assistance services for their LEP patients in the same way they would advocate for any
important diagnostic test or therapeutic agent” (366). With appropriate education and understanding, healthcare providers of all levels will be more accountable for the language services they offer/provide. They will also be more beneficial to their employers and their patients, not only through providing language services as required in current policies but also through helping develop future programs to better language services accessibility and lower costs. Similarly, LEP patients need to be educated about their rights to appropriate language access so care providers can be held accountable for providing such services. Implementing and enforcing existing laws and creating new ones to lessen ambiguity and increase service can easily accomplish this.

In addition, there are additional aspects that can be improved upon other than funding and accountability. Education opportunities on integrating language services into their practice should be offered to providers. Furthermore, encouraging bilingual employees to obtain certification could help lessen the shortage of qualified interpreters. By allowing bilingual employees to obtain certification, it utilizes existing resources and knowledge of medical terminology, ethics, and HIPAA policies. The certification process would teach the employee candidates the intricacies of being a medical interpreter as well as provide documented proof of proficiency in their target language according to national standards. This could also create policies that clarify the specific roles of interpreters and to integrate interpretation into current practices in order to prevent role exchange that can result in interpretation errors.

An intriguing new idea for providing medical interpretation is using college students. A case study with California State University and Long Beach Memorial Medical Center (LBMMC) explores this possibility. LBMMC is a large hospital serving an ethnically diverse community in California that until 2002 utilized volunteer employees and contracted language
agencies and telephone interpretation services to provide interpretation. This led to numerous problems such as only 7 of the 120 volunteer employees regularly providing interpretation services; there were no competency requirements or qualifications, and utilizing third party services was time consuming and expensive. A graduate student proposed using students as interpreters, “with a pilot project to recruit and train young bilingual/bicultural health professional students from the health administration program” (Frates and Torres 31). Since the students were majoring or minoring in health care, they came into the program with preexisting knowledge of the health care system and medical terminology. By utilizing bilingual and bicultural students, they also had extensive knowledge of the language and culture. The program required all candidates to meet specific requirements and attend a 40-hour training program that taught them how to be effective interpreters and uphold the policies set forth by the hospital as well as ethical standards. Not only were the student interpreters trained, but care providers were also trained on how best to incorporate and work with interpreters. The pilot program was successful, and LBMMC plans to implement future initiatives into their program to further improve language services provided (Frates and Torres).

This innovative approach to providing language services shows ingenuity and creative thinking in order to serve the limited English proficiency population, while keeping in mind typical constraints preventing the use of certified interpreters such as funding and lack of access. This program could be used as a model for other institutions and states that offer health science and foreign language majors in a college or university. Classes could be provided to students majoring or minoring in healthcare occupations or foreign languages to prepare them for the medical interpreter certification exam, thus providing a source of certified medical interpreters that might otherwise be unavailable.
Another avenue that could be pursued for providing certified medical interpretation to rural areas would be utilizing video conferencing interpretation. If a clinic had access to the needed technology and was trained in its usage, it could be a feasible option for when in-person is not available and telephone interpretation is deemed not effective due to the lack of visual component. This would have a somewhat substantial initial cost along with continued cost for high speed Internet and any technical support required. However, it could be more cost effective than ensuring in-person interpretation and be available in all locales.

If utilizing certified medical interpreters is truly unfeasible by a locale, another potential option could be to expand the coverage currently offered in the Good Samaritan Law. Expanding the law to include volunteer medical interpreters operating in emergency situations as well as general non-emergency medical encounters could help provide additional medical interpreters through encouraging volunteers to help fill the need for medical interpretation. However, this policy change could come with the additional risk associated with using ad hoc instead of certified medical interpreters as previously discussed.

**Future Research Needs:**

Before any major policy changes are made, additional research is needed to assess the feasibility of the policy itself as well as integrating the policy. Specific areas for additional research in Wyoming include a comprehensive survey of existing interpretation policies in health care institutions across the state, as well as evaluating the practicality and feasibility of offering classes for medical interpretation through the University of Wyoming or any of the junior colleges in the state.
A more comprehensive policy study, utilizing the public record act to obtain hard copies of policies, is imperative to evaluate the current practices in order to implement future policies that provide for improved language services. For this project only four clinics were interviewed regarding their interpretation policy with mixed results being reported. Due to time constraints, more clinics were not interviewed and hard copies of policies were not obtained through a public records request. Doing more expansive research of clinics, hospitals and other healthcare facilities and using public record requests to obtain hard copies of the policies in place would provide a more accurate picture of current policies and future policy needs. Similarly, doing a more in-depth comparison of neighboring state regulations with similar demographics to Wyoming would be beneficial to see how other states are implementing and providing language services.

Furthermore, another area for future research would be the feasibility of implementing an educational program for students and existing healthcare employees through the University of Wyoming and/or junior colleges across the state. Utilizing existing education infrastructure of foreign language departments and health science departments has the potential to create a program similar to the one utilized by Long Beach Memorial Medical Center. Classes to help prepare candidates for certification could be offered to current college students and to existing healthcare providers as continuing education opportunities, thus providing a source of certified medical interpreters through new and existing medical employees. Faculty, facility, financial, and legal aspects are a few of the avenues that would need investigated in order to assess the feasibility of instituting this type of program.
CONCLUSION:

In conclusion, while there are existing policies for medical interpretation, they are not sufficient to ensure adequate language services for LEP patients. As the LEP population continues to grow in the United States, so does the demand for medical interpretation. While utilizing friends, family, or other persons, as ad-hoc interpreters can be easy or convenient, it comes with a higher risk of errors than when utilizing a certified medical interpreter. Similarly, while in-person interpretation is the ideal, other avenues of interpretation such as remote methods like over the phone and videoconference interpretation needs to be considered as well, especially in rural areas where access to certified medical interpreters in person is highly limited. Existing policies are not all encompassing and remain ambiguous at all levels: federal, state, and local. Overall, enforcing existing policies, performing additional research, and implementing new policies and technologies within Wyoming’s healthcare system could significantly improve language services and medical care for the LEP population.
Notes:

1. The U.S. Census Bureau classifies anyone over the age of 5 with a self-reported English proficiency of less than "very well" to be limited English proficiency (Gambino, et al. 2).

2. Spanish-language acquisition studies have shown that typically a first-generation immigrant tends to speak his/her native language, Spanish with little to no competency in English. His/her children, second-generation immigrants tend to be bilingual with high proficiency in Spanish and English. Their children, the first-generation’s grandchildren, tend to be monolingual in English only, with little to no competency in Spanish. Children who immigrate as teenagers, referred to as the 1.5-generation, possess language abilities similar to second-generation immigrants. For more information see: Montrul, Silvina. "2.4 Desarrollo, Mantenimiento y Pérdida de Una Lengua en Contacto." *El Bilingüismo En El Mundo Hispanohablante*. Wiley-Blackwell, 2013.

3. Interpretation and its complementary skills include setting the stage, interpreting, managing the flow of communication, managing the triadic relationship [between patient, provider, and interpreter], and assisting in closure activities (International Medical Interpreters Association 13, 14).

4. The National Health Law Program was founded in 1969 and is dedicated to protecting and advancing the health rights of low-income and underserved individuals and families through advocating, educating, and litigating at state and federal levels ("About Us." *National Health Law Program*, www.healthlaw.org/about. Accessed 21 Nov. 2016.).
Works Cited:


The National Board of Certification for Medical Interpreters is an independent division of the International Medical Interpreters Association, which is a of the ruling authorities on medical interpretation. The National Board began development in 1986 to foster better health outcomes, patient safety, and communication through national recognized standards and certification for medical interpreters. The organization develops, organizes, oversees, and promotes a nationally recognized program for all languages, as well as encourages relationships between patients and providers. Certification benefits patients, providers, interpreters, the healthcare industry, and the government. The certification process includes meeting eligibility prerequisites and passing both a written and oral examination.


Phone interview with a clinic in Jackson, Wyoming, regarding their current needs for and policies regarding medical interpretation. Interviewee responded that approximately 25% of their patient base are Spanish speaking or have limited-English proficiency. The clinic uses interpreters from a local interpreter center, with an unknown certification status, or staff to provide any interpretation needs. For basic services such as flu shots, a friend or family is allowed to interpret; however, a certified interpreter is required for any complicated procedure. Care-provider’s malpractice insurance covers any liability associated with staff members providing interpretation.

A personal interview with a clinic in Laramie, Wyoming, reported a high need for interpretive services, with approximately 30% of patients, relying upon ad-hoc interpreters to provide interpretive services due to a lack of available certified interpreters in the area. The lack of certified interpreters creates reliance upon volunteers. The administration feels the trust created between frequent patients and ad hoc staff interpreters is more important than providing a certified interpreter at the risk of breaking the patient/interpreter trust. If an ad hoc staff interpreter is not available, family members are frequently used, which can create additional problems due to conflicts of interest. The clinic does provide all paperwork and prescription labels in both English and Spanish. Legal immigration status of patients affects the effectiveness of any future policy changes.


A personal interview with a clinic in Rawlins, Wyoming, revealed approximately 25-30% of patients are limited English proficiency and tend to be part of the elderly population. Currently, the clinic utilizes patients’ family and/or friends to provide interpretive services. Paperwork is provided in Spanish; however, there is not always someone available to interpret in person. A phone system is available but not used frequently due to believing in-person interpretation is more effective. If a staff member is able to interpret, the staff member is allowed to do so without requiring any certification. The clinic stated they have seen the effects of language barriers inhibiting medical care, especially with medication and post-appointment instructions. Staff members reflect a desire to use certified interpreters due to issues that can result from relying on family members and having seen benefits from utilizing a trained
interpreter such as making follow-up appointments. A staff member stated speaking the same language and bearing a similar physical appearance to the patient is imperative to providing quality interpretation and medical care as well. A lack of availability and funding inhibits certified interpreters from being used.


A personal interview with a clinic in Rawlins, Wyoming, showed a high prevalence of limited English proficiency patients with approximately 30% of patients speaking Spanish as their primary language. Currently, bilingual staff members provide all interpretation as part of their job duties with no certification requirements.


A Canadian study analyzes bridging the language and cultural gaps that frequently hamper medical care. In 2006, the study reported that language barriers hinder health care for approximately 72 million Americans or 10% of the population, which equates to 7 million Canadians. Language barriers not only impede medical care, but they also tend to prevent patients from seeking care with a reported one-in-five Latino patients with limited English proficiency not seeking medical care when it is needed. The study reports that one-in-three immigrant parents did not understand medication label directions. However, an interpreter does not always clear the confusion, especially if the interpreter is not certified in medical interpretation. A more daring approach is for medical care providers to learn a few key phrases
in a new language in order to establish doctor/patient trust until a certified interpreter can be provided.


Alpert Medical School of Brown University and Albert Einstein College of Medicine conducted this study with support of a HRSA PreDoctoral Training Grant to examine the patients’ perspectives on the need for and barriers involved in obtaining professional medical interpretation. Focus groups with 22 limited English proficiency patients were conducted with the results transcribed and analyzed in the original Spanish. Results show limited English proficiency patients encounter significant challenges in accessing health care because of inadequate or insufficient access to and utilization of professional interpreters. Several themes that appeared in the research were a lack of interpreter availability, embarrassment because of lack of English skills, and providers overestimating limited English proficiency patients’ understanding of English. Many respondents felt the language barrier contributes to poor quality medical care. This study reemphasizes the needs for adequate interpretation for adequate medical care in the limited English proficiency population.


Memorial Hospital in Colorado Springs, Colorado, was sued for $1 million in damages
because of a lack of translation that led to their 2-month old daughter suffering from complete kidney failure. Jesus O. Flores and Marisela Rios, the girl’s parents, reported speaking and understanding little to no English and were led to believe the surgery was a relatively simple operation. However, that was not the case. Neither the procedure nor consent forms were presented to the parents in Spanish, nor was a trained interpreter used. The couple’s eldest daughter acted as a translator when the doctor explained to them that the baby’s kidney needed removed. Neither alternative options nor risks were presented or translated for the family.


The Division of General Internal Medicine at San Francisco General Hospital, University of California collaborated with the National Health Law Program, Washington DC, and the Center for Genetics and Society in Oakland, California, on this study that looks into the federal mandates regarding language rights in healthcare. It provides an overview of existing state laws and recent developments in the legal world to address language barriers as of 2007 when the study was conducted. After analyzing existing legislations, the authors make recommendations for future actions to better serve the limited English proficiency population while ensuring legal liability is secure.

The Quality of Care for Underserved Populations Special Populations Program through the Commonwealth Fund funded the research presented in this study conducted by The Joint Commission in 2007. The study looks at the characteristic differences of adverse events encountered by English speaking patients and those of limited English proficiency patients in U.S. Hospitals. 6 Joint Commission accredited hospitals in the U.S. participated during the 7-month data collection in 2005 utilizing the National Quality Forum endorsed by the Patient Safety Event Taxonomy. Results show 49.1% of limited English proficient patient adverse effects included some sort of physical harm whereas only 29.5% of adverse effects for English proficient patients resulted in physical harm. In the limited English proficiency patients experiencing physical harm, 46.8% had harm ranging from moderate temporary harm to death. These adverse effects in limited English proficiency patients were also shown to be more likely from communication errors. This study shows the criticality of providing quality interpretation to bridge the language gap in order to increase patient safety and limit patient harm.


The Toronto Central Local Health Integration Network funded the Language Service Toronto Program Evaluation that performed this study in 2015 that used a 2-phased sequential exploratory mixed methods approach to evaluate the use of Over-The-Phone (OPI) interpretation over a broad and economically available network of various health care organizations. The study
assesses patients’ and providers’ experiences with OPI and the impact of any alternative interpretation services on the access and quality of health care provided. Results show both providers and patients identified a broad range of positive impacts and high levels of satisfaction with OPI. There was also a considerable decrease in the use of ad-hoc interpreters when OPI was available. While OPI is not the only answer to decreasing the language gap, it does show OPI as a valuable tool that could contribute to a broader range of positive impacts in various healthcare settings.


The Center for the Advancement of Urban Children, department of Pediatrics, Medical College of Wisconsin; Department of Pediatrics and Internal Medicine, Boston University School of Medicine; and the Latino Health Institute in Boston, Massachusetts, collaborated on this study from 2002 that examined the frequency and potential clinical consequences resulting from errors in medical interpretation. Pediatric encounters which utilized some sort of interpreter, either professional or ad-hoc, were recorded and transcribed verbatim over a 7 month period. A bilingual professional transcriptionist did the transcriptions. In order to ensure accuracy and reliability, the transcripts were then reviewed 3 times, once by a bilingual physician whose first language was English, second by a bilingual sociologist whose first language was also English and lastly by a bilingual physician whose first language was Spanish. The transcriptions were then analyzed for errors and classified based upon which type of interpreter was used in the situation. The study shows a significant increase in errors with potential clinical
consequences made by ad-hoc interpreters (77%) versus hospital interpreters (53%).


This article looks at the current struggle with finding enough medical interpreters and legal liabilities associated with missed interpretations. The story begins in 1980 when an 18-year-old baseball player, Willie Ramirez, was taken to a South Florida hospital in a coma. According to the article, his family used the Spanish word, “intoxicado,” which the doctors understood as being intoxicated. However, after his condition did not improve, they found he was suffering from bleeding in his brain that left him a quadriplegic. This started the push for having certified interpreters available especially since family members and phone interpreters are not always effective either. At the time of this article, there was only a 3% chance of getting a qualified/certified medical interpreter in Oregon. Care providers are hoping with the Affordable Care Act penalizing hospitals for readmissions that there will be an increase in interpreter availability in order to keep readmissions and costs down.


California State University in conjunction with Long Beach Memorial Medical Center (LBMMC) performed a case study on the use of bilingual, bicultural college students preparing for careers in healthcare as interpreters in order to alleviate costs and provide consistent interpreter services. Prior to this program, LBMMC relied on volunteer interpreters in
preexisting staff or external interpretation services. This led to several problems, especially the use of external interpreter services which cost on averaged $5500 a month; whereas, the use of students cost only $2000 a month. Students had to fulfill certain skill and ability requirements, as well as attend training programs financed by the California Endowment. Requests for interpretation services at LBMMC skyrocketed after students were utilized to fulfill the need for interpreters. Since then the program has been upgraded as part of the hospital’s continuing quality improvement program for customer service.


American Community Survey Report evaluates the English proficiency of the foreign born population residing in the United States using data collected form January 2012 through December 2012. Foreign born refers to anyone who was not a U.S. citizen at birth. Approximately 3.5 million addresses participated in the American Community Survey Report with statistical testing on the data and comparisons showing significance at the 90% level. Immigrants from various countries are compared according to their self-assessments for English proficiency. Factors such as education level and length of time in the U.S. contributed to a speaker’s English proficiency.

Modern Healthcare examined the need for professional interpreters in hospitals for immigrant patients in 2004. The study showed a dramatic rise in the demand: approximately 18% of the U.S. population over 5 years old spoke a language other than English in their home. This was a 46% increase from 1990. During the same time, more than 25% of limited English proficiency patients did not understand medication administration instructions without interpreters. Like in similar studies, ad-hoc interpreters made significantly more mistakes with potential clinical consequences than professional trained hospital interpreters. Greenbaum and Flores also point out a discrepancy in care between English proficient patients and limited English proficiency patients. Those with limited proficiency without an interpreter typically undergo more diagnostic testing and conservative treatments than limited proficiency patients with an interpreter or English proficient patients. Due to this discrepancy in care, the chance of lawsuits from limited English proficiency patients towards the hospital increases significantly. There is also the risk of fines or losing funding from the government for not complying with federal regulations relating to providing language assistance services at no cost to patients.


This frequently asked question regarding HIPAA regulations answers whether or not a healthcare provider can share a patient’s health information with an interpreter in order to communicate with the patient or with the patient’s family, friends, or others involved in the patient’s care or payment. As long as the interpreter works for the healthcare provider, is acting on behalf of the healthcare provider or the patient agrees or does not object, or the healthcare provider deems it is appropriate using their professional judgment; the interpreter is included in
HIPAA regulations. This establishes that interpreters are subject to HIPAA rules and regulations similarly to other healthcare providers.


Interpreters face various challenges associated with role expectations placed upon them. This study from 2006, conducted by the Department of Communication at the University of Oklahoma, looks at these conflicts themselves, the causes of the conflicts, as well as strategies for resolving them. Twenty-six medical interpreters from seventeen languages in the Midwestern U.S. were interviewed on their experiences. The results indicate there are four main sources of conflict, 1) others’ communication practices, 2) changes in the dynamics between the participants, 3) institutional constraints, and 4) unrealistic expectations. Interpreters employ various methods to resolve these conflicts including justifying their roles, redefining relationships and identities, and adopting specific communicative strategies. The study emphasizes contextual factors on strategies and management of role conflicts so the interpretation is accurate and does not adversely affect patient care.

International Medical Interpreters Association, and Education Development Center, Inc.


The International Medical Interpreters Association was founded in 1986 and is based in Massachusetts. It is an international organization committed to advancing professional medical
interpreters and furthering language access in health care. There are over 2,000 members in the association providing services for over seventy languages making it the oldest and largest association of its type in the country. The Standard of Practice emphasizes three main areas for interpreters: interpretation which includes setting the stage, interpreting, managing the flow of communication, managing the triadic relationship, and assisting in closure activities; cultural interface, and ethical behavior. The Standard of Practice is meant to serve as a guidepost in developing educational and training programs, an evaluation tool, preparing healthcare providers to work with interpreters, and a foundation for a certification examination.


Trained interpreters are the preferred method for bridging the language barrier. However, they are not always an option due to a shortage of certified interpreters. This study conducted in 2010 examines the possibility of using remote services such as video conferencing technology to provide medical interpretation and making qualified interpreters more readily available to more medical facilities. The research was supported by the National Institutes of Health Intramural Research Program and by NIH contracts. Data was collected from patients, providers, and interpreters based upon completed survey scales evaluating the quality of clinical encounters facilitated through different methods including in-person, telephone, and video. Surveys also offered a free text component for additional comments regarding participants’ experiences with the various interpretation methods used. Providers and interpreters rated in-person interpretation
the highest. Patients rated all methods the same and there was no significant difference between the remote methods used by providers and interpreters.


The Modern Language Association took data from the US Census Bureau’s 2006 – 2010 *American Community Survey (ACS) 5-Year Estimates* and the 2000 Census reporting the top 30 languages spoken in the home. The data was compiled into maps and tabular data for easy reference and further limiting of specific state or area specific data. In addition to the languages spoken at home, the MLA Language Map also has the option to display where certain languages are taught throughout the country in all US colleges and universities as of Fall 2013 semester.


The National Council on Interpreting in Health Care is a multidisciplinary organization that seeks to promote and improve language access in the United States’ healthcare system. The Council was founded as an informal group in 1994 and was formally established in 1998. It is composed of people working in a variety of aspects regarding interpretation including medical interpreters, interpreter service coordinators and trainers, clinicians, policymakers, advocates and researchers. Their goals are to establish a basic structure that promotes competent interpreting including standards and code of ethics; to develop and monitor policies, to research and model successful practices; to sponsor a national dialogue regarding medical interpretation; and to collect and distribute information on programs and policies in order to improve language access
in health care to the limited English proficiency patients.


In 2008, the authors in cooperation with The California Endowment compiled state laws on language access in healthcare. Research was limited to state statutes and administrative regulations related to health, insurance, and government functions. All health care providers have to comply with Title VI of the Civil Rights Act of 1962 and the Hill-Burton Act, both of which have to do with providing non-discriminatory services. The U.S. Department of Health and Human Services requires hospitals to post notices of these laws in English, Spanish, and other languages spoken by more than 10% of households served. State laws provide an additional level of protection, but only a few have comprehensive laws. Most states focus on a particular type of health care provider, service, payer, or patient group. Some provide detailed guidance; others note the importance of language access but do not specify methods to improve it. Additional trends show provisions looking at cultural competency training and Medicaid funding.


This case study, done by the American Hospital Association, looks at improving patient care by bridging gaps between expectations and practices of patients and providers. Specifically, the case study looks at providing care to refugee and immigrant patients, families, and communities. Community House Calls, a program at Harborview Medical Center in Seattle,
Washington, participated in the question and answer portion of the study regarding their culturally competent patient care practices. Questions examine why the program started, how the program impacts healthcare delivery disparities, how the program is funded, and advice for others who want to follow their approach in providing multi-cultural care to limited English proficiency patients.


The Division of General Internal Medicine, Department of Medicine, Medical Effectiveness Research Center for Diverse Populations at the University of California, San Francisco, California, conducted this study to look at professional medical interpreters’ opinions of in-person and remote interpreting methods. Three medical centers participated in surveying interpreters in their facilities as to their satisfaction regarding communication methods used such as: videoconferencing medical interpretation (VMI), telephone interpretation, and in-person interpretation. Interpretation methods were evaluated in 21 common clinical situations in both hospitals and ambulatory care clinics. Results show all modes were equally satisfactory for sharing information; however, respondents favored in-person over telephone for developing rapport with the patients and for facilitating clinicians’ cultural understanding. For all situations the use of VMI showed an improvement over telephone interpretations. The study shows while all methods are satisfactory for simple oral communication, in-person and VMI provide a more well-rounded patient approach, suggesting a mix of the different methods would be the best
strategy for language access.


This study, conducted in 2010 by the University of California at Berkeley, School of Public Health in conjunction with the National Health Law Program, examined medical malpractice claims in order to identify when language barriers resulted in harm to the patient. They found in 35 claims from January 2005 to May 2009, 2.5% of claims reviews, the Carrier (insurance provider) paid over $2 million in damages or settlements and almost $3 million in legal fees. These cases were due to patients suffering death or irreparable harm. In one case, the pediatric patient served as an interpreter, another used an older sibling. In 32 of these 35 cases, an untrained interpreter was used with family or friends serving as interpreters in twelve of the cases. Twelve of the claims included important documents such as consent forms or discharge instructions not being provided in the appropriate language. A competent interpreter was not offered or provided in any of these cases. The researchers estimate there is a greater number of similar cases that were not filed due to a language barrier in the legal system as well.


*Modern Healthcare*, in 2014, examines how to avoid errors in medical interpretation by using qualified interpreters. According to the article, approximately 9% of the U.S. population is at risk for negative effects as a result from language barriers encountered in healthcare. Frequently, ad hoc interpreters such as patient family members are utilized to help facilitate
interpretation due to a lack of certified interpreters. However, these individuals tend to lack familiarity and knowledge with medical terminology which can result in interpretation mistakes such as omission, addition or substitution, adding their own perspective, or using slang or terminology that does not exist in the patient’s language. Certified, professional translators with 100 training hours or more made significantly fewer mistakes than those with less or no official training. The article emphasizes the importance of using qualified interpreters in order to provide the best medical care to the patient.


Typically, border towns along the U.S.-Mexican border are accustomed to treating patients whose native language is Spanish and have limited English proficiency. However, as immigration and migration continues, the language barrier between medical care providers and patients is affecting other communities. This is resulting in hospitals across the nation investing in cultural competency programs to reduce medical errors as a result from miscommunication as well as improving the perception of care by Spanish-speaking patients. This study from 2002 looks at various ways hospitals across the country are working to bridge the cultural and language gap. Different methods such as onsite and telephone-based interpretation, signs in multiple languages, and utilizing pictograms with phonetic pronunciations are a few ways being utilized to help serve limited English proficiency patients. Funding is a consistent barrier to providing more support for interpretive services as well as Federal regulations that are often seen as both beneficial and unfunded mandates.

This study compiled in 2008, looks at state laws that provide comprehensive legal liability protection for health-care volunteers during public health emergencies. The George Washington University School of Public Health and Health Services, Department of Public Health as part of a larger study analyzing federal and state public health emergency response capabilities completed the research in this study. A couple shortfalls of the popular Good Samaritan Law are identified as the law only covering an emergency itself and none of the aftermath or post care, and the law tends to be retrospective rather than prospective. Wyoming’s Good Samaritan Law is similar to twenty other states’ laws that either fail to issue protection for volunteer healthcare workers or are so ambiguous that no prospective immunity is inferred with the lack of comprehensive regulations.


Another study by McGill and Laval University in Canada looks at the same interpretations examined in the journal article “Doctor-patient Communication in Primary Care with an Interpreter: Physician Perceptions of Professional and Family Interpreters” but analyze the data from the interpreters’ perspective. The results identify different roles for the professional interpreters including information transfer, creating a safe environment, mediating between cultures, and maintaining boundaries. In contrast, family interpreters see their roles as facilitating understanding, ensuring diagnosis and treatment, and interacting with the healthcare
system. The differences show professional interpreters fulfill their conduit role of ensuring information transfer, whereas family interpreters act as a third participant often speaking for themselves instead of simply interpreting the patient-doctor communication. In order to provide for the best medical care, professional interpreters should be used to ensure appropriate information transfer, but they should also be encouraged to act as a patient advocate and cultural broker.


McGill University and Laval University in Canada collaborated on this study that explored physician perceptions on professional and family interpreters and how it affects the physician’s communication and performance. 19 physicians with 24 patients accompanied by some sort of interpreter were videotaped and simulated recall was utilized to elicit participants’ perceptions of the encounters. The transcripts were also analyzed later using software. Results show all physicians felt all communication tasks were more difficult using an interpreter when one was not necessarily needed. Family interpreters are perceived as being less skilled and knowledgeable than professional interpreters. Physicians also expect professional interpreters to account for cultural differences as well as provide interpretation. While only some of the family interpreters also serve a caregiver role, it was assumed that all family interpreters are also primary caregivers for the patients. The study concludes that physicians follow rules regarding interpretation when a professional interpreter was used; while family interpreters were exempt from the rules and treated as caregivers.

The Institute for a Broadband-Enabled Society at the University of Melbourne funded this study that looks at the suitability of using videoconferencing technology for medical consultations requiring an interpreter. They also sought to compare patient and provider satisfaction and perceptions associated with videoconferencing interpretation versus on-site and via telephone. The suitability and acceptability of using videoconference for interpretation is examined through out-patient clinical consultations in 2 situations: 1) the doctor and patient are in a consulting room at a central hospital with the interpreter in a remote location, 2) the doctor, patient, and interpreter are all at separate sites. The study looked to measure the satisfaction level, number of problems recorded, and over-all acceptability of videoconferencing when compared to other methods of providing interpretation. Results show 98% of respondents are satisfied with the use of videoconferencing for interpretation. When compared to telephone interpretation, 82% prefer the videoconference. However, when compared with on-site interpretation only 16% consider the videoconference to be better or much better, with 58% showing equal satisfaction rates between videoconference and onsite. This shows videoconferencing as a potential solution to provide interpretative services to rural areas that might not otherwise have a means of using a professional interpreter in patient care.

State of Wyoming Department of Health Rules and Regulations for Medicaid Covered Services

The Rules and Regulations for Medicaid Covered Services Section 20 discuss the requirements for interpretation services in order to be a covered service and reimbursable charge through Medicaid in the state of Wyoming.


An interpreter was sued for $3 million in a wrongful death lawsuit due to mistranslating an address. The missed translation resulted in first responders taking over 26 minutes to arrive on scene of a 25 year old female who was experiencing shortness of breath and difficulty breathing. While the dispatch center used a translation service that only requires emergency dispatchers to push 1 to be connected to a Spanish translator, the missed translation by the interpreter resulted in the victim’s death. This case emphasizes the need for accurate and efficient translations in the medical field.


This study looks at the roles medical interpreters can take during a given situation/interpretation. It compares the role exchange between ad-hoc interpreters and certified hospital interpreters. Various role exchanges that occurred are the interpreter assumes the patient’s role, the provider’s role, or a non-interpretive role such as socializing or acting in another professional role during the interpretation session. Uncertified, chance, ad-hoc
interpreters show an increased likelihood in participating in role exchange. However, both groups of interpreters frequently participate in role exchange while the medical care provider is actively engaged in the medical visit. In most cases, the interpreter did not make their role exchange apparent to the provider or the patient. Implications for the role exchange as well as provider training to avoid role exchange in the future are discussed.


*Hospitals and Health Networks* in 1997 looked at a new program, Community House Calls, created by Harborview Medical Center in Seattle, Washington. The program, initiated in 1994, strives to take normal interpretation and translation services and turn it into a more comprehensive cultural intervention that involves all aspects and involved parties in a patient’s medical care. Bilingual, bicultural staff members help patients and educate medical care providers in cultural concerns and issues their patients are facing as well as provide language interpretation. The long term goal of Community House Calls is to decrease language barriers, to improve patient satisfaction, and to promote use of modern health care systems by high-risk, lower socioeconomic status families. The program initially funded with grants is now part of the hospital’s administrative budget. This shows an intuitive approach to caring for limited English proficiency patients with more than language interpretation, truly considering all aspects of their culture in relation to medical care.

Wyoming State Statute 1-1-120, officially titled, “Persons rendering emergency assistance exempt from civil liability,” is also commonly known as the Good Samaritan Law. This law states that any person who provides medical care or assistance during an emergency or accident, without receiving compensation, and not acting in gross negligence or wanton misconduct, will not be held liable for any civil damages. While this state statute specifically mentions immunity from civil damages, it does not specifically address medical interpreters acting in good faith or in situations that are not defined as an emergency or accident.


The California Endowment supported this analysis of the U.S. Laws and policies governing language access in medical care. While there seems to be sufficient legislation, there is a lack of comprehensive implementation and enforcement of the legislation that results in millions of limited English proficiency patients having to accept a lower quality of medical care because of the language barriers. Federal laws, state laws, training requirements, facility licensure, particular populations, interpreter competency, English-only laws, and policy implications are all examined as to how they can inhibit or help language access in medical care. Shortfalls are also identified in order to facilitate change and provide better, higher quality medical care to limited English proficiency patients.

The Migration Policy Institute examines the limited English proficiency (LEP) population in the U.S. Data from 1990 to 2013 is compared in tables and charts comparing the differences between LEP populations based upon nativity, language diversity, age, race, ethnicity, education and employment, poverty, children, and English language learners. Data was compiled from the U.S. Census Bureau’s American Community Survey, which uses self-assessments to evaluate English proficiency instead of English language tests; thus, the data is subjective.