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## IMPACTFUL INTERACTIONS WITH MEDICAL INTERPRETATION

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IMPACTFUL INTERACTIONS WITH MEDICAL INTERPRETATION

by

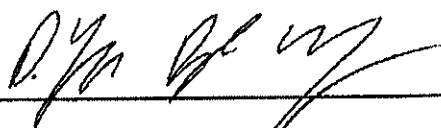
Alyssa Reinschmidt

A Thesis Submitted in Partial Fulfillment  
Of the Requirements for the  
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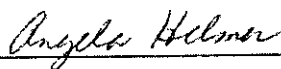
Department of Biology  
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May 2021

The members of the Honors Thesis Committee appointed  
to examine the thesis of Alyssa Reinschmidt  
find it satisfactory and recommend that it be accepted.



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### **Abstract**

The purpose of this paper is to examine the quality of healthcare that one can receive when the language barrier is a factor, looking specifically at the collaboration of interpreters and physicians in the delivery of care. To carry out this study, I have analyzed the presence of the language barrier in South Dakota, the current methods of interpretation in clinical settings, and how physicians and interpreters work together to provide care to Limited English Proficiency (LEP) patients. Data has been collected from scholarly articles, journals, presentations, and videos.

Ultimately, with my committee's help, I have created a physician-interpreter training module for the Sanford School of Medicine to prepare future physicians to work alongside interpreters, improving care for LEP patients. This proposed training will be included in the medical school curriculum, enhancing the patient encounter and future health outcomes. As the immigrant population in South Dakota continues to grow, the need for meaningful access to healthcare for LEP patients grows as well. The ultimate goal is to increase the quality of care that these patients can receive in years to come.

Keywords: Language Barrier, Limited English Proficiency, Interpretation

### **Impactful Interactions with Medical Interpretation**

Consider this: you are at a hospital in a country brand new to you. The signs on the walls are written in words that you have never learned to read. The speakers in the corner of the room quietly play music that you do not understand, and the newscasters are loudly speaking in the same foreign tongue. You manage to get yourself checked in and back to the examination room, but that's only the beginning of the battle. You now have to explain to the nurse and physician what your complex symptoms are, hoping they will understand enough to make the proper diagnosis and develop a successful treatment plan. They bring a computer translator into the room to aid this process, but it feels impersonal and cold--almost inhumane. The physicians and nurses are clearly frustrated, and you are concerned that you are not receiving the care you came for. You are likely experiencing amplified nervousness, fear of the unknown, and uncertainty about proceeding with the appointment. How likely would you be to see a doctor with this experience in mind?

### **Importance of Awareness**

Unfortunately, these fears are a reality in the clinical setting for many people, resulting from the implications of the language barrier. By definition, the language barrier is “a barrier to communication between people who are unable to speak a common language” (Lexico, n.d.). Being unable to communicate fluently in English negatively impacts the quality of care that one can receive in the United States of America. The purposes of this paper are to identify why language is fundamental to health and society, raise awareness for the people who are impacted by the language barrier, discuss the current methods that are utilized to reduce the impact of the language barrier for patients,

highlight the importance of medical interpretation and finally, to propose a training module for medical students so that they will be better equipped to serve their diverse future patient populations.

### **Language is Fundamental to Health and Society**

The language barrier greatly complicates interactions in the medical world, and it also hinders nearly every other daily encounter for individuals in the US who do not speak English as their first language. In a broad sense, language is essential to society's proper function because it forms the basis of communication, allowing the transmission of ideas, opinions, values, and customs. Ultimately, it facilitates meaningful relationships and connections within friendships, business transactions, education, and more. Language is one of the most impactful tools that society has--it unites and divides people depending upon their shared understanding or the lack thereof. It is fair to conclude that without communication, society would be drastically different than it is now. Nelson Mandela said it well when he stated, "If you talk to a man in a language he understands, that goes to his head. If you talk to him in his own language, that goes to his heart" (de Galbert, P., 2019).

Furthermore, language is essential from a medical perspective as well. In fact, studies have shown that humans are inherently social creatures, and the lack of social interaction takes a toll on the patient's mental health. To exemplify this claim, scientists have found that empathy and synchrony are critical in human relationships (Penttila, 2019). The results of the study suggest a potential connection between relationships and the experience of both pain and loneliness. For example, researchers from the Dana Foundation conducted a study on empathy (Penttila, 2019). To carry out the analysis,

they recruited pairs of participants. They then ran a simulation and measured an electroencephalogram (EEG) on the two participants simultaneously to a stimulus. Within the simulation, one member of the pair received a heat stimulus resulting in a burning sensation, and the other member of the pair held their hand in support (Penttila, 2019). The results showed that when the participants were strangers, there was not much correlation between the scans (Penttila, 2019). However, when the participants had a prior relationship, there were similar patterns of alpha-mu brain activity--a wave associated with empathetic feelings. One of their findings also suggests that greater synchrony between the waves was associated with less pain reported from the person receiving the stimulus (Penttila, 2019). Ultimately, the study suggests that human relationships are vital to endure and survive various difficult events that inevitably occur in life. It appears that having another person intimately involved in one's life will make the tribulations that occur significantly more bearable and reduce the risk of mental illnesses.

According to the Minnesota Department of Education, in order to build and maintain human relationships that the prior study deems necessary, there must be clear communication, active listening, cooperation, proper negotiation of conflict, and seeking essential help ("Relationship Skills", n.d.). Thus, the language barrier complications hamper the process of relationship building--and hence empathetic connection--in daily life. Forming new relationships and obtaining beneficial social relationships with others becomes a significant challenge without the common foundation of language. Building relationships with the presence of the language barrier takes time, dedication, and

intentionality; however, it is crucial for maintaining good mental health for those directly affected, making it clear that language is a vital part of society's successful function.

The language barrier does more than hinder empathetic connections, as it can also provide an avenue for loneliness to manifest in one's life. When communication is obstructed or eliminated, relationships fail. People are distanced from one another. They can no longer relate via shared thoughts and experiences; thus, it can leave people feeling alone. According to research, loneliness can cause individuals to withdraw, and they can also become more anxious, shy, and develop lower self-esteem (Hu et al., 2020). Furthermore, social relationships are harmed and challenging to maintain (Hu et al., 2020). Loneliness is not only highly detrimental to mental health, as noted in the studies on empathetic connection, but it provides several physical health complications as well. Studies have provided evidence that loneliness and social isolation may be linked to issues such as depression, poor sleep quality, impaired executive function, accelerated cognitive decline, poor cardiovascular function, and impaired immunity at every stage of life (Novotney, 2019). Additionally, loneliness ranks with obesity and smoking regarding the risk of additional health complications (Novotney, 2019). Thus, the language barrier is not something to be condoned by the remainder of society; instead, it demands attention for the sake of both the mental and physical health of millions of individuals living in our country.

### **Who is at risk of being impacted?**

In the United States, the individuals significantly impacted by the language barrier and thus more prone to the associated mental and physical health complications are commonly known as the Limited English Proficiency (LEP) population. According to the



Office of Economic Impact and Diversity, a person is deemed to have Limited English proficiency when they “do not speak English as their primary language” and “have a limited ability to read, speak, write, or understand English” (“FAQs for Limited English Proficiency Program”, n.d.). Nationally, the LEP population has now surpassed 25 million people, and the number is continually increasing (Batalova & Zong, 2020). This population is a large number of individuals, and they need assistance as they adjust to life in the United States and seek to integrate themselves into their new communities.

Inevitably, as the foreign-born immigrant population emerges into society, the rising numbers of residents will translate into the medical field patient population.

Corresponding physicians will seek to tailor to the needs of their ever-changing patient populations, and hospitals will continue to see a rise in the demand for interpretation services to avoid healthcare disparities due to the communication barriers. Some of these disparities that LEP patients face include, but are not limited to, inaccurate medical histories, misunderstandings in diagnosis and treatment options, inappropriate use of medications, lack of informed consent, longer hospital stays, low patient satisfaction, and poor execution of follow up plans (Coren et al., 2009). According to the Journal of the American Osteopathic Association, the sum of these barriers can result in fewer visits to providers, less preventative care, worsening of chronic conditions, and increased hospitalization (Coren et al., 2009). Thus, the LEP patient population is at risk for many additional health complications due to the language barrier, and this issue needs awareness and action.

### **Additional Factors of the Language Barrier**

Ultimately, all patients should receive the highest level of care regardless of their race, ethnicity, language proficiency, socioeconomic status, sexual orientation, religious beliefs, or other aspects of their identity. These aspects of identity are heavily influenced by biological and environmental factors, as well as cultural background. Culture shapes every part of life; the American Sociological Association defines culture as “the languages, customs, beliefs, rules, arts, knowledge, and collective identities and memories developed by members of all social groups that make their social environments meaningful” (“Culture”, n.d.). Different cultures determine how the patients will describe their symptoms, their perception of the illness, their understanding of the disease process, how likely they are to seek healthcare, how they will perceive and behave toward healthcare providers, and more (“Cultural and Diversity Considerations”, n.d.). Thus, it is all the more important that the entirety of the healthcare team has a foundation for respectfully caring about the cultural differences that exist within the melting pot in the United States of America. The team should first ensure that they have the proper means for successful communication, whether that be an interpreter or language-sensitive materials about their care. The provider should then ask open-ended questions to gauge their patients’ understanding of medical care (“Cultural and Diversity Considerations”, n.d.). The patients’ answers will help determine how much assistance they need from the medical team.

To begin preparation for encounters with LEP patients, the provider must be well-versed in the importance and role of both diversity and inclusiveness. In fact, all healthcare team members should be culturally competent, meaning that they can interact effectively with people of different cultures and backgrounds (“Cultural and Diversity

Considerations”, n.d.). A benefit of having an in-person, professional interpreter available is for their role in assisting the medical team in cultural awareness. To receive their certification, they are trained and explicitly tested on cultural awareness (Martinez-Morales, n.d.). Their training may also serve to keep the other healthcare team members in check with how they are treating their culturally diverse patients as they step into a role as a patient advocate (Sánchez-Herrera, 2020). When patients approach certain aspects of medical care in different ways, there is likely a reason why they are doing so--this can often stem from their religious beliefs or customs. For example, followers of Mormonism may not be able to take drugs that contain alcohol or caffeine; followers of Christian Science may not want to get vaccinated; followers of Buddhism may wish to avoid mind-altering drugs; followers of Islam may require a same-sex provider; followers of Jehovah’s Witness will not be able to receive blood products (Swihart, 2021). These are just a few examples of how religion can impact how individuals seek care, and religious beliefs are central to many people’s identities. Being aware of these different facets will protect patients’ autonomy and right to choose their care. After all, the physician is treating their patients as whole beings--including their spiritual, emotional, and mental health--not simply for physical conditions, though that is important as well.

Many other factors are typically present in conjunction with language and cultural differences. In the clinical world, low health literacy can often be found along with these circumstances (Almutairi, 2015). Researchers at UNLV define health literacy as “the ability to obtain, understand, and use the information needed to make wise health choices” (“Health Literacy as a Contributor to Immigrant Health Disparities”, n.d.). Less-than-adequate health literacy impacts the ability to understand prescriptions and hinders

the ability to make informed healthcare plans. Thus, it can be concluded that low health literacy negatively affects patients' autonomy within their healthcare plan, a right that they should have regardless of their background.

When analyzing the impact of low health literacy in the United States, the most significant disparities are found in the Limited English Proficiency population. According to the Office of Disease Prevention and Health Promotion, Hispanic adults face the lowest health literacy, followed by black adults and then American Indian adults ("Health Literacy", n.d.). Further, a study found that 74% of Spanish-speaking patients fall into the category deemed less-than-adequate health literacy ("Health Literacy", n.d.). Only 7% of English-speaking patients are a part of this category, so it becomes rather apparent that this issue must be addressed by the healthcare system ("Health Literacy", n.d.). Low health literacy contributes to many of the same problems that the language barrier produces: medication errors, low adherence to treatment plans, decreased use of preventive screenings, increased amount of visits to the emergency department, longer hospital stays, and higher mortality ("What is Health Literacy?", n.d.). Increasing health literacy in the LEP populations will likely increase confidence in the pursuit of healthcare, and it will assist with their integration into the society. Thus, when the language barrier and low health literacy are simultaneously present in an individual's life, the disparities are exacerbated and need to be addressed for the sake of the health of millions.

### **Federal Initiatives**

To combat some of the healthcare disparities that are present as a result of the language barrier, interpretation services have been introduced to and required in clinical

settings. The purpose of installing mandatory interpretation services is to provide meaningful access to care for all patients. In an effort to protect the intrinsic rights of the immigrant population, the concept of meaningful access to care has been instituted as a federal regulation. In 1964, it was passed under President Lyndon B. Johnson that “all providers that received any sort of federal funding must abide by Title VI of the Civil Rights Act, which prohibits discrimination on the basis of race, color, or national origin” (Coren et al., 2009). President Bill Clinton took another step for the cause when he issued Executive Order 13166, which required federally-funded providers and hospitals to “render appropriate access and services to LEP patients” (Coren et al., 2009). These two bills are more than simply additional laws to abide by; instead, they provide hope that equity will be attained within healthcare.

Furthermore, the bills propose that LEP patients be offered the assistance they need to be comfortable seeking western medical care. Though federal regulations have forced clinical practices to provide meaningful access, the Journal of the American Osteopathic Association suggests that providers continue to lack the proper training with the federal regulations (Coren et al., 2009). At this point in healthcare advancement, it is simply unacceptable that providers continue to be untrained in such a growing and pressing issue that impacts so many individuals.

As a potential solution, the Department of Health and Human Services now proposes that LEP assessments of all federally funded practices should be completed (Coren et al., 2009). Within the assessments, there are four factors the department has suggested be evaluated: “the proportion of LEP individuals who are likely to be encountered by the program, activity, or service”, “the frequency with which LEP

individuals come in contact with the program, activity, or service”, “the nature and importance of the recipient’s program, activity, or service”, and “the resources available to the recipient” (Coren et al., 2009). Proper assessments inherently reveal the strengths and weaknesses of each practice. Practical steps can then be taken, tailored to the needs of the specific practice to make changes within the system.

Title VI and Executive Order 13166 were implemented to decrease the effects LEP patients feel when it comes to implications of the language barrier. However, with an analysis of disparities associated with the language barrier, the importance of access to medical interpretation is exacerbated. Concerning the hindrances that LEP patients may experience, it has been demonstrated that using a medical interpreter leads to an increase in patient satisfaction and, inversely, a decrease in adverse outcomes like prolonged hospital stays (Tonkin, 2017). Presidents Lyndon B. Johnson and Bill Clinton integrated an essential change to the national healthcare system with their orders; however, their words must be taken to action through access to high-quality medical interpretation for all individuals that need it.

### **Medical Interpretation**

According to the National Code of Ethics for Interpreters in Healthcare, medical interpretation aims to value the wellbeing of patients, to be faithful to the actual content of the message, and to respect the culture of the patients (“A National Code of Ethics for Interpreters in Health Care”, 2004). With this claim in mind, certified medical interpreters do more than a direct interpretation of language; they are also knowledgeable in general medicine and must stay up-to-date with evolving methods of treatment and diagnosis (“Medical Interpretation”, 2020). It is expected that interpreters will accurately

convey the conversations to both the provider and patients, notice and clarify any misunderstandings, and be engaged in the purpose of the meeting; they also bring a neutral, unbiased level of assistance to the appointment (Liao, 2014). Aside from the logistics of interpretation, the professional interpreter has the opportunity to serve as a cultural liaison for the physician and patients (Tonkin, 2017). This role is helpful because many LEP patients are often foreign-born and may have a completely different healthcare experience than what is standard in the United States. They can communicate the differences to both the patients and the care team, and they have the unique opportunity to truly advocate for the patients as they seek to fulfill their role.

A career in medical interpretation can be attractive to many because the interpreter joins the care team in a unique way. They can come alongside medical personnel and support patients in an uncertain, vulnerable time. If an individual is drawn to this career, there are a few requirements that they must fulfill before certification: they must be at least eighteen years old, be fully bilingual, have a high school diploma or its equivalent (GED), and complete at least 40 hours of medical interpreting training (“Medical Interpretation”, 2020). Additionally, to join the national board for Certified Medical Interpreters, the individual must have a bachelor’s or master’s degree, a Ph.D., or any other higher education degree where the language is spoken (“Medical Interpretation”, 2020). A high school diploma can also be sufficient if it comes from a country where the specified language is spoken (“Medical Interpretation”, 2020).

If the basic requirements are fulfilled, the aspiring interpreter should find a program to complete their 40-hour requirement. Different programs may have different course titles, but like the Medical Interpreting Training School, they are likely composed

of courses covering the basics of interpretation, ethics and standards, medical terminology, interpreting in cardiology, endocrinology, orthopedics, psychiatry, nephrology, and oncology (“Medical Interpretation”, 2020). After the 40-hour training program is complete, there are different ways to assess the potential interpreter’s language ability. Many of the certification services require the individual to pass both a written and an oral test. According to Medical Interpreting Training School, in addition to the test, the interpreters are also trained in basic interpreting skills and techniques, sight translation, protocols and ethics, understanding cultural aspects in healthcare interpretation, conservative and traditional medicine, advocacy, listening skills and empathy, simultaneous interpretation, and consecutive interpretation (“Medical Interpretation”, 2020). There are many online programs that prospective interpreters can use to obtain their certification, but they should be confident that their program is accredited and accepted nationally (“Medical Interpretation”, 2020). After completing their training, they will be ready to enter the medical system, aiding and easing the healthcare experience for patients and providers.

### ***The Reality in South Dakota***

One of the significant issues that the South Dakota healthcare system is currently facing is the lack of medical interpreters. According to Sanford Health Interpreter Hilda Sanchez-Herrera, there are only six nationally certified medical interpreters statewide (Sánchez-Herrera, 2020). All six of these professional interpreters are licensed in the Spanish language, which serves the highest percentage (38%) of the state LEP population (“Data and Language Maps”, 2015). However, that leaves thousands of South Dakota residents without the opportunity to have an in-person professional interpreter at their



medical appointments, and health issues resulting from disparities are intensified. The low number of interpreters is likely due to the lack of advertisement of the career and lack of training programs around the state. However, there is one on-site course through the Cross Cultural Health Care Program called Bridging the Gap. The program holds 40-64 hour classes in Aberdeen, Huron, and Sioux Falls, and the courses are open to any bilingual individual. They also offer online prerequisite courses to prepare their students to take a certification exam and be ready for a career in medical interpretation (“Bridging the Gap”, n.d.). Programs like Bridging the Gap are making changes and implementing movements so that all people have access to quality healthcare in every community. Still, South Dakota needs to advertise these opportunities to its residents more with the hope and incentive that they will stay to serve their local communities.

On a statewide level, South Dakota has seen nearly a 150% increase in LEP population from 2000-2019, making the issue worthy of attention (“South Dakota”, 2021). The growth has resulted in almost 20,000 individuals who fall into the LEP category, and they need assistance to become active members of society and improve their quality of life while living in the state (“Limited English Proficiency Plan”, 2015). Though this number is less than other regions of the country, it is growing in the number of citizens and thus, growing in importance for state clinics and hospitals.

### ***Growing Need Nationwide***

The trends observed in South Dakota can be extended to a national level. As a country, the need for medical interpretation in the United States is prominent, and it grows as the immigrant population in the nation also continues to increase. On a global scale, the United States has drawn more immigrants than any other country. The national

trend depicts rapid growth since 1970, with the number of immigrants in the United States increasing by approximately 35 million people over 50 years (Budiman, 2020). However, since 2016, the trend has shifted to a slight decrease in the growth rate. For example, the number dropped from 1,183,505 new legal, permanent residents to 1,031,765 new residents in 2019 (“Table 1”, 2020). The decline in immigration growth is likely a result of a federal administration heavily focused on reducing the number of individuals permitted into the country (Hanna et al., 2021). Though 2020 statistics have not been published, it is also expected that the decline was exacerbated by the COVID-19 pandemic, which led to closed borders for many countries and thus, hindering the rate of immigration (Hanna et al., 2021). However, even with less immigration, more than 44.9 million foreign-born individuals were recorded as living in the United States in 2019, comprising approximately 13.7% of the total population (Hanna et al., 2021). More than half of the total immigrant population is classified as part of the Limited English Proficient (LEP) population. This population encounters the most difficulties with the language barrier, as mentioned previously (Zong & Batalova, 2015). Thus, the LEP population needs meaningful access to quality medical interpretation in the clinical setting more than any population.

### **Current Interpretation Methods and Differences Between Them**

Though there are many methods of interpretation, professional interpretation is the most successful and preferred form concerning providing a high standard of care to LEP patients. Professional interpretation includes both in-person and remote interpretation as long as the interpreter has been trained and certified. Researchers conducted a literature search to back this claim, compiling twenty-eight studies on

professional interpretation and its positive impact on clinical healthcare (Karlner et al., 2007). The findings pointed towards a more positive healthcare experience when professional interpretation is part of the appointment. The data was measured with variables such as fewer clinically significant errors, equal adherence to follow-up from the emergency department, equal frequency of tests, equal visit lengths of English-speaking patients, lower rates of obstetrical interventions, and equal hemoglobin A1C, lipid, and creatinine values in diabetic LEP and English-speaking patients (Karlner et al., 2007). The advantages produced by the use of professional interpretation counter the disparities that many LEP patients face.

Going further, studies have found an association of higher satisfaction among clinicians and patients with in-person interpreters rather than with the use of ad hoc (bilingual family members or staff) interpreters (Locatis et al., 2010). The research they have done with physicians and patients rating encounters with different forms of interpretation suggests that having an interpreter physically present is the most appropriate and appreciated form during the appointment for all parties involved (Locatis et al., 2010). It is the most personal and comfortable experience for enhancing the patients' experiences in healthcare.

Second to in-person interactions, remote interpretation is the most effective strategy for LEP patients seeking quality care. Remote interpretation differs from in-person interpretation because it is typically centralized at a distant call center, while the patients and healthcare team are in a different location--the hospital or clinical setting ("Remote Interpreting Resources", n.d.). There are two main methods within this type of interpretation: video remote interpretation (VRI) and over-the-phone interpretation (OPI)

(“Remote Interpreting Resources”, n.d.). Both variations provide benefits to the patient encounter, but they also present potential complications within the clinical experience. Some of the benefits to both types are immediate access to interpretation services, access to thousands of different languages, and adequately trained interpreters joining the patient care team. Some of the potential complications for general remote interpretation are set-up time, technological problems, poor audio, and a more impersonal encounter as the interpreter is not physically in the room (Locatis et al., 2010).

Though the two methods fall into the same category of remote interpretation, they differ in seemingly minor ways that impact the patients’ experience. In a research study conducted on 115 video encounters, all but one patient preferred video in comparison with telephone interpretation (Locatis et al., 2010). All providers and interpreters surveyed preferred video interpretation to telephonic interpretation, which is likely due to the importance of visual communication within human interaction (Locatis et al., 2010). Another benefit to video technology is that it can be a successful form of interpretation for deaf patients, as they can see and communicate with the interpreter on the screen (Juckett & Unger, 2014). Video remote interpretation thus fills many roles within medicine and enhances the clinical experience for various individuals. Seeing the interpreter on the screen makes the experience more personal than over the phone; however, it can be more distracting because attention may be drawn to the video interpreter rather than eye contact with patients. Video remote interpretation also requires a longer set-up time than over-the-phone interpretation, causing some providers to see it as an inconvenience, especially when pressed for time (Locatis et al., 2010).

Complications aside, this method is an effective tool that enhances the quality of care for LEP patients when an in-person trained interpreter is not available.

Over-the-phone interpretation is a very similar process to video interpretation, though it does not require the same time commitment for set-up. It may provide a less distracting method for the physician and patients; however, facial expression, social cues, and body language are lost in translation when the interpreter is not visible. Non-verbal cues are also lost for the interpreter when they cannot see the patients. This fact may make it more difficult for the interpreter to be an asset to the appointment.

Professional interpretation is correlated with a higher level of care for LEP patients, and the use of any form of interpretation services is associated with improved clinical care (Karliner et al., 2007). In other words, any method that the clinic can offer will leave patients in better standing than attempting to work without any services. In a study conducted by the Journal of General Internal Medicine, patients rated all forms of interpretation services highly regardless of the method provided to them (Locatis et al., 2010). This finding suggests that the services lessened the language barrier's impact on their overall experience.

The next and least effective method of medical interpretation is commonly known as ad hoc interpretation. In this form, the interpreter is a family member or friend of the patient, a bilingual hospital employee, or an unaffiliated bilingual individual from the waiting room ("What is an Ad Hoc Interpreter?", 2019). In a study comparing error rates of medical interpretation between professional interpreters, ad hoc interpreters, and no interpreter present, ad hoc interpretation provided significantly higher rates of potential clinical consequences as a result of an error, measuring closely with no interpreter present

at all (Flores et al., 2012). Within this study, potentially hazardous errors were categorized as the omission of a word or phrase, the substitution of a word or phrase, an edited version of the provider's statement, or a non-existent word or phrase that altered the meaning of the statement (Flores et al., 2012). These types of errors can harm the health of patients in many ways.

An international journal called *Annals of Emergency Medicine* provided an example of the impact of these different types of errors. In one scenario, ad hoc interpreters told a patient that they should administer two tablespoons of medication rather than the two *teaspoons* of medication prescribed by the provider (Flores et al., 2012). A mistake in prescription dosage could lead to failure to treat the disease or severe harm to the patients' overall health. In another case, the ad hoc interpreter informed the physician that a pediatric patient was not currently taking any medications and did not have any allergies to drugs. However, the interpreter never asked the mother of the patient those questions (Flores et al., 2012). Thus, the mother never had the opportunity to know what the provider was asking her for, putting her child at severe risk of harm for counteracting drugs, a serious allergic reaction, or a drug overdose. In summary, both of these scenarios are extremely dangerous to the patients' health, and the lost information could drastically alter the diagnosis or treatment of the condition.

Because of the many possible complications with ad hoc interpretation, many physicians vary in comfortability with its use and place in the healthcare world. Some providers may appreciate this method because it is the most convenient--the family member is commonly present at the appointment already. It could provide the patients with some peace and comfort having a familiar person in the room throughout the

examination. On the contrary, many providers prefer to avoid this method because, according to the research done by the Annals of Emergency Medicine, it presents the highest likelihood of error and hence the most danger to patients, along with no interpretation service available at all (Flores et al., 2012). Further, the American Academy of Pediatrics also states that ad hoc interpretation is “not desirable in that these individuals may be unfamiliar with technical or scientific language, may inadvertently commit interpretive errors, or may editorialize patients’ responses” (“Chapter 5: Interpreter Services”, n.d.). The physician and healthcare team cannot be confident that their message is being entirely and clearly conveyed to patients, nor can they be sure that the patients are receiving the complete answer to their questions or that their symptoms are being correctly described. To sum it up, ad hoc interpretation provides the space for an abundance of confusion and uncertainty for both parties. The patients also face a breach of confidentiality within this method because the ad hoc interpreter has not legally agreed or may not understand that they must keep the information to themselves (Ho, 2008). Thus, the lack of confidentiality can be harmful to the autonomy of patients and their right to make informed healthcare decisions for themselves.

Furthermore, they may receive biased opinions or unwarranted advice, impacting how they choose to go about their healthcare as they consider the expectations that their family members may have (Ho, 2008). Patients may also be uncomfortable sharing private details of their condition in front of their family members or friends. Having a loved one present can cause patients to leave out sensitive information, and they lose time to process their conditions before sharing the details with family members (Ho, 2008). In sum, ad hoc interpretation can hinder patient autonomy within the appointments.

Based on the research completed on medical interpretation, it is evident that a professional in-person interpreter is the route to take if the goal is to provide high-quality care to all patients, including those who belong to the LEP community. Still, the interpreter, nurses, and physician should equip themselves for their part within the interaction; the preparation allows them to further enhance the experience for patients. There are some potential hiccups with the exchange if the interpreter and medical personnel are not on the same page with how the appointment will go. Though they cannot perfectly predict all of the appointment outcomes, they can prepare themselves for the interaction and gain knowledge on what the exchange should accomplish for their patients.

### **Physician-Patient-Interpreter Interactions**

Before the medical team enters the examination room, the American Academy of Pediatrics suggests that they should have a conversation among all members about the patient background and health history if available (“Chapter 5: Interpreter Services”, n.d.). Doing this conceivably improves the care that patients receive because the medical staff can note potential factors that may underlie the situation and affect communication, such as the history of drug use and previous health conditions. The physician may have the time and proper access to process these things, but they must also share their perspectives and ideas with the interpreter as they are an integral part of providing care to LEP patients. With the prior conversation, the interpreter is also given the appropriate amount of time to prepare for any emotional stress that can occur as a result of a medical encounter, allowing them to care for patients well (Liao, 2014). Finally, the time before the appointment also permits the interpreter to ask any pertinent questions that they may



have regarding the condition of patients so that they feel as prepared as possible for the encounter (Liao, 2014).

The interpreter and physician should then discuss which form of interpretation they would prefer to use: simultaneous interpretation, consecutive interpretation, or sight translation. Simultaneous interpretation is similar to a voice-over, and it is a word-for-word running method (Gany et al., 2007). In other words, the interpreter speaks while the physician, nurse, or patient is speaking. Consecutive interpretation occurs when the interpreter first listens to the speaker, whether it be the medical staff or the patients, and then they interpret after the speaker finishes their thought (Gany et al., 2007). Consecutive interpretation is effective because it allows the interpreter time to process misunderstandings and address them sooner. The final skill for interpreters to use is known as sight translation. In this method, they read a document (patient forms or educational material) and simultaneously communicate it to patients in their language (“Sight Translation”, 2020).

Another critical aspect of medical interpretation is the positioning in which the physician and interpreter choose as an arrangement for the appointment. The most beneficial arrangement ultimately depends on how the condition, needs, and personality of the patients, the physical limitations of the room, and the nature of the appointment--whether it be a physical examination, in an operating room, an OB-GYN check-in, or many other circumstances (Liao, 2014).

There are three main positions by which the provider and the interpreter can situate themselves when they enter the examination room. The first occurs when the interpreter stands right next to the provider, and they are situated side-by-side (Liao,

2014). This arrangement allows patients to maintain eye contact with both medical team members while the appointment is being conducted. In return, the provider and the interpreter can better read the body language and facial expressions of the patients (Liao, 2014). However, if patients are more hesitant, they may experience feelings of intimidation, as if the interpreter were only an assistant to the physician rather than an advocate for them (Liao, 2014).

The next position occurs when the interpreter stands next to the patients. This formation functions well because it may gently encourage the patients to maintain eye contact with the provider. It is also a beneficial option if patients are hard of hearing because their source of communication is right beside them (Liao, 2014). The potential flaw with this arrangement is that patients may be more likely to make side comments or have side conversations with the interpreter instead of speaking to the physician (Liao, 2014).

The third and final position is a triangle formed among the physician, the interpreter, and the patients. In this formation, the interpreter generally feels like an unbiased participant in the care, which is helpful for the role that they have signed on to fulfill. However, it may be difficult for patients to maintain eye contact with both members of the care team, and they may not know exactly where to look throughout the appointment (Liao, 2014). As a result, the flow of the appointment could be disrupted.

Another way that the physician can ease the continuity of the appointment is by speaking in succinct phrases (Liao, 2014). The messages are then portrayed clearly and concisely for patients, and they will have the opportunity to ask clarifying questions via the interpreter. Conveying one primary idea at a time allows the physician to ensure that

the patient understands the language they are using while describing their condition. For transparency purposes, a professionally-trained interpreter can typically handle longer phrases from the physician (Liao, 2014).

Many of the same guidelines apply for remote interpretation, though a few things will be different. The healthcare team should know where the equipment for VRI and OPI is located, as well as backup supplies if something malfunctions (Harrison & Mirza, 2019). If VRI is being used, it must be positioned so that the interpreter can see both the physician and patients, if possible (Harrison & Mirza, 2019). Adding visual perspective gives the remote interpreter the best opportunity to read the room and pick up non-verbal cues from afar. The physician should still provide background information, context, and explain procedures to the interpreter, and they should intervene if they sense a misunderstanding (Harrison & Mirza, 2019).

Additionally, the physician should always be sure to use first-person language when speaking to patients and asking questions about their condition (Fune et al., n.d.). While doing so, they should also focus on maintaining eye contact with the patients rather than the interpreter (Harrison & Mirza, 2019). These two skills will be most effective when building the physician-patient relationship with the language barrier at play. For example, questions should be phrased, “What symptoms are you experiencing?”, and not, “What symptoms are they experiencing?” (Fune et al., n.d.). First-person language keeps the conversation focused on the patients. The physician should also be cautious to avoid colloquialisms that do not translate to another language well. For example, “Are you feeling sick?” in place of, “Are you feeling under the

weather?” (Harrison & Mirza, 2019). Blunt phrases will provide the most straightforward translation across languages, easing the obligations of the interpreter.

Because the language barrier adds potential difficulty to the appointment for both parties, it is of the utmost importance that the provider enters the room with a patient and positive presence. Frustration or irritability will inevitably make the atmosphere tenser and harm their patients’ encounters with the medical system. It could impact whether or not they will continue to seek the care that they need. Overall, adopting these skills and gaining knowledge about the logistics of interpretation will ease the care interaction for the physician, the interpreter, and the patients involved.

### **SSOM and Proposed Solutions**

The University of South Dakota Sanford School of Medicine has taken many steps to emphasize the importance of diversity and inclusion within their medical training. They have worked to enhance the training that they offer for the attending students at their institution. Their commitment to inclusion is made clear in their school’s diversity statement, in which they proudly note, “...the medical school is committed to both recruitment and retention of students, residents, faculty and staff who, through their diversity, enrich the learning environment and promote inclusive excellence” (“Diversity Statement--Our Philosophy”, n.d.). Current medical students at USD are determined to join the mission and take responsibility for their generation of future doctors, refusing to accept the ways of the past. San Chandra, a pillar 1 student, states, “Our vocation asks us to expand our role as healers into education and advocacy efforts as well” (Chandra, S., n.d.). Alongside other medical students and faculty, she is actively educating herself to use lessons from the past to change future physician knowledge of medical diversity.

One of these recent additions to the school is the Anti-Racism Discussion Group, consisting of more than 100 members spanning all four classes of students. Some faculty members are also involved. Biweekly meetings are hosted to discuss pressing topics focused on equipping future physicians to be better allies to patients affected by racism (Chandra, S., n.d.).

Another group that has been newly added to the Sanford School of Medicine is White Coats for Black Lives. This group focuses on promoting racial justice in communities and in medicine (Chandra, S., n.d.). The group opens the door for discussion about complex topics, allowing the students to gain different perspectives and be more prepared to serve racially diverse patients.

The former dean of the medical school, Dr. Mary Nettleman, and current dean, Dr. Tim Ridgway, developed the Racial Justice in Medicine group. This group seeks to add to the curriculum, push for more diversity efforts within the medical school, and strengthen the education of their medical students so that they are better prepared to serve and respect their diverse future patient populations effectively (Chandra, S., n.d.). Groups like this one will greatly impact medical care in the future.

Thus, it can be concluded that the Sanford School of Medicine is making evident, notable efforts to educate and prepare their students for a lifelong commitment to providing care to diverse patient populations. However, the curriculum at USD could improve the training for students on how to interact with LEP patients. In a national study analyzing the preparedness of medical students to care for LEP patients, only 20% of them reported feeling very well or well prepared for the interactions (Rodriguez et al.,

1970). As the Sanford School of Medicine prepares to send its future physicians into the state to serve all patients well, LEP patients must be prioritized.

As a part of this thesis and as a potential solution to the disparities noted, my committee and I have developed a training module for the curriculum that teaches current medical students about the origins of the language barrier, what the language barrier will look like in their future practice, the local LEP patient population in South Dakota, current methods of medical interpretation, and how they can best prepare themselves to interact successfully with professional interpreters during their appointments with LEP patients. The proposed training module would be part of the medical school curriculum. It is a PowerPoint presentation (see Appendix) covering pertinent background information and skills to prepare medical students for LEP patient encounters when an interpreter is present. The module's final step will be a series of simulations in which the medical student is given cases with an LEP patient and a professional interpreting service, whether it be in-person interpretation, video remote interpretation, or over-the-phone interpretation. Having the module end in role-playing will help the students apply their knowledge from the PowerPoint and practice interpreter interactions before seeing their first LEP patient. Ultimately, they will be equipped to provide the highest level of care to their future LEP patients, reducing the disparities within the western healthcare system.

### **Impact of COVID-19**

Starting in March 2020, the global healthcare system has been flooded with cases of COVID-19 in addition to their regular influx of patients. For many clinics and hospitals, opening space for extremely sick patients with COVID-19 often meant

mitigating elective hospital procedures and implementing strict stay-at-home orders. However, healthcare is an essential practice for the wellbeing of all individuals, so the medical system had to react to the implications of the pandemic in a safe, effective, and efficient way. As a solution, researchers noted an important transition to telehealth in circumstances that allowed it to be a successful alternative option for in-person healthcare. They saw an increase of telehealth visits at their institution from <1% to 70% of consultations done virtually (Wosik et al., 2020). The pandemic thus forced healthcare providers to get comfortable using technology as a replacement for appointments. With hospitals way over maximum capacity, the time needed to provide an interpreter for LEP patients complicated the process of requesting one. Researchers also found that technological concerns can become a barrier to providing an interpreter, so physicians must work with healthcare administration to develop and install technology for medical interpretation to serve LEP patients virtually as well (Clarke et al., 2020).

With a rise in telehealth services, there is a hope that rural populations will be reached more effectively and that the disparities regarding location can be reduced (Madigan et al., 2020). With the implementation of telehealth services, there is also a hope that LEP populations will have greater access to quality medical care due to improved accessibility and efficiency of medical consultations (Clarke et al., 2020). As providers and patients gain confidence with telehealth, the world of medicine will be changed to improve care for all patients.

### **Conclusion**

The language barrier obstructs and interferes with communication in society, and it also negatively impacts the proper functioning of the US healthcare system. The quality

of care that can be provided and received decreases; thus, mental and physical health suffers. This pressing issue needs scholarly attention and action for the LEP patient population, physicians, nurses, medical personnel, and professional interpreters. To relieve the effects felt by the language barrier in medicine, I propose the implementation of a training module for the Sanford School of Medicine. This module will educate future physicians about the language barrier, LEP patients, cultural competency, and proper interactions with professional interpreting services. As a result, the quality of care will be improved, and disparities held by the LEP patient populations will hopefully be reduced. This short module is a small addition to the curriculum that has the potential to make a world of difference to future patients and their wellbeing.



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## Appendix

Link to Google Drive Slides: [Interpretation Module](#)

Link to Module Recording:

[https://usd.zoom.us/rec/share/Ck2BiqNyd4M6Dk6S5lXk1FUL6UXJNRuAgXgadBzXvQ0\\_Sr7xgiJ81K8MggGbx\\_KV.UR-Zq9TX08DLomhP](https://usd.zoom.us/rec/share/Ck2BiqNyd4M6Dk6S5lXk1FUL6UXJNRuAgXgadBzXvQ0_Sr7xgiJ81K8MggGbx_KV.UR-Zq9TX08DLomhP)

# Impactful Interactions with Medical Interpretation

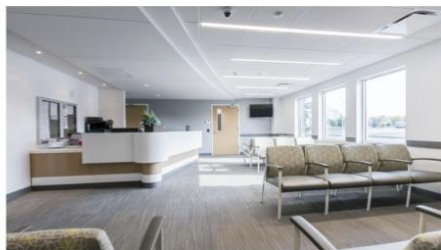
Training Module for Future Physicians

Aly Reinschmidt and Committee Members: Dr. DenYelle Kenyon (director), Dr. Angela Helmer, Dallas Doane

## Overview

- I. Language barrier and those affected (LEP population).
- II. Disparities that result from the language barrier.
- III. Current methods of medical interpretation.
- IV. How future physicians can be better prepared to interact with LEP patients.

Consider this:



(Bishop, L., 2019, August 23)

## The Language Barrier La barrera del lenguaje भाषा अवरोध



(How to Overcome Language Barriers When Healthy Older Adults, 2016) (Larkin, 4-4)

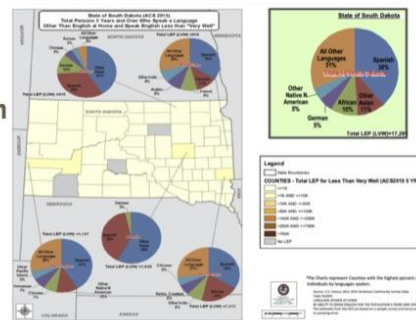
## LEP Patient Population

LEP individuals do not speak English as their primary language and have a limited ability to read, write, speak or understand English.



(How and Language Maps, 2015) (HHS for Limited English Proficiency Program, 4-4)

## LEP Patient Population: A Glimpse of South Dakota



(How and Language Maps, 2015)

### How does this affect my LEP patients?

Misunderstandings can lead to:

- Inaccurate medical histories
- Misunderstandings in diagnosis and treatment options
- Inappropriate use of medications
- Lack of informed consent
- Longer hospital stays
- Low patient satisfaction
- Poor execution of follow up plans



(Health Literacy - Health Literacy, n.d.)  
(Thomas, K., 2020)

(Ray Touchette, 2015)

### What to expect in the clinic:

In-Person Interpretation



Video Remote Interpretation & Over-the-Phone Interpretation



Ad-hoc Interpretation



### In-Person Interpretation

- Higher rates of satisfaction for medical personnel.
- Personal, comfortable.
- Non-verbal cues.



(National Center of Medical Unemployment, 2017, March 29)

(Over-the-Phone Interpretation - Industry leading OPI with LanguageLine, 2021, January 16)

(Bauer, C., & Green, M., 2020, July 16)

### Remote Interpretation



(Over-the-Phone Interpretation - Industry leading OPI with LanguageLine, 2021, January 16)

### Ad Hoc Interpretation



Risk of:

- Omission of word or phrase.
- Substitution of word or phrase.
- Edited version of the statement.
- Non-existent word or phrase.
- Breach of confidentiality.
- Patient discomfort.

(Bauer, C., & Green, M., 2020, July 16)  
(Horne et al., 2015)

## Professional Interpretation in South Dakota

Only 6 nationally certified interpreters in the state of South Dakota



## Benefits of Using Trained Interpreters

- Fewer errors in communication
- Improved patient satisfaction
- Interpreter may act as a cultural liaison to ensure clarification for the physician
- Interpreter may clarify patient meaning beyond language
- Interpreter may function as a link between patients and the health system
- Lower malpractice risk
- Use of a trained interpreter is associated with significantly shorter hospital stays and reduced 30-day readmission rates
- Use of a trained interpreter meets legal requirements of Title VI of the Civil Rights Act

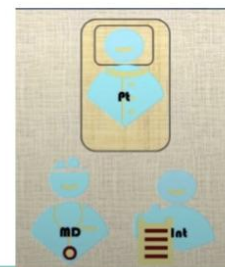
(Palmer, A., & Lili, (Sanchez-Hernandez, M., 2020)

(Duckert, G. & Upton, K., 2016)

## In-Person Interpreter: How to have a successful interaction

1. Provide background information to the interpreter
2. Discuss method that both the physician and the interpreter are comfortable with
  - a. Simultaneous
  - b. Consecutive
  - c. Sight Translation
3. Provide language-appropriate forms and educational services
4. Read the room: positioning is important!

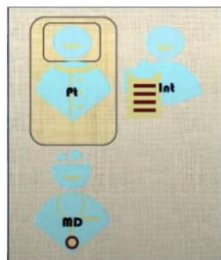
## Positioning



(Lili, C., 2014)

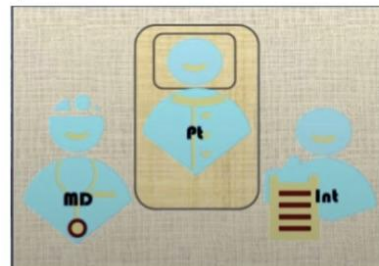
(Lili, C., 2014)

## Positioning



(Lili, C., 2014)

## Positioning



(Lili, C., 2014)

## Interacting with Remote Interpretation

- Know where equipment is located
  - Learn about backup equipment in case of malfunction
- Position the video equipment so that the interpreter can see both you (the provider) and the patient, if possible
- Provide context and background information to the interpreter
- Explain movements and procedures to the interpreter as you do them.
  - Example: "I am taking the patient's blood pressure."
- Intervene if you think there is a breakdown in communication.

## Important Tips for All Types of Interpretation!

- Always maintain as much eye contact as possible with the patient.
- Speak to the patient, not to the interpreter.
  - Example: "What symptoms are YOU experiencing?"
    - Not: "What symptoms is he/she experiencing?"
- Slow down and use shorter, succinct sentences.
  - Avoid colloquialisms
    - Not: "Are you feeling under the weather?"
    - Use: "Are you feeling sick?"
- Observe and use facial expressions and body language.
- Be positive and patient.

## What is cultural competency and why does it matter?

Culture: "the languages, customs, beliefs, rules, arts, knowledge, and collective identities and memories developed by members of all social groups that make their social environments meaningful"



## Simulated Appointments with Professional Interpreters



## Case Study 1:

<b>Brief narrative description of case</b>	<p>Patient is a 12-year old male who presents to the emergency department (ED) for a skin abscess. He was originally seen at an urgent care center and started on oral clindamycin but has not seen improvement. Today, it was tender to touch and redder, so his mom brought him to the ED for treatment. The attending ED physician notes that the abscess can likely be treated with a simple incision and drainage, and so he sends the learner in to obtain a history and physical, and to obtain consent for the procedure. The patient is English speaking, but Mom only speaks Spanish; Mom is accompanied by her friend.</p> <p>The overall learner goals are to (1) identify the need for using an interpreter and (2) convey the importance of certified interpreters (versus using laypeople as ad hoc interpreters), and (3) work with the interpreter and caregivers in accordance to the guidelines presented in the workshop.</p>
<b>Primary Learning Objectives</b>	<ul style="list-style-type: none"> <li>• Recognize the need for language services</li> <li>• Explain need for language services to patient/caregiver(s)</li> <li>• Demonstrate consistent eye contact with patient/caregiver(s)</li> <li>• Exemplify speaking in digestible phrases</li> </ul>

(Pons, J. et al., n.d.)

## Follow-up Questions (Discuss with Partner)

- Why was the interpreter necessary?
- What kind of interpreting strategy did you use? Simultaneous? Consecutive?
- How would you rate the flow of the appointment?
- How could the interaction have been improved?



## Case Study 2:

Who: Mr. Rafael Hernandez, a 45-year-old Spanish-speaking man with type 2 diabetes and no other major medical issues

Link: <https://www.ahrq.gov/sites/default/files/publications/files/lepguide.pdf>

Pg. 51-52.

## Follow-up Questions (Discuss with Partner)

- When should the interpreter have been called?
- What signs pointed to the need for an interpreter?
- How is Mr. Hernandez's care impacted because of the situation?
- What was the proper response to this scenario?

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## Case Study 3:

**Nurse:** Hi, [interpreter name], I'm nurse [name]. We are going to discharge [patient name] today. He has had a myocardial infarction and we need to give him some instructions about his activities and medications.

**Interpreter:** Okay. Is there anything else I should know?

**Nurse:** No, that's it, but please don't hesitate to let me know if you or the patient need any clarification on something I say, or if there's anything you think I should know about the patient or his culture.

**Interpreter:** Sure, I can do that.

[Interpreter and nurse walk into patient room.]

**Nurse:** Hi, [patient name], I'm [nurse name]. I'll be going over your discharge instructions with you. If you have any questions or need clarification on something I say, please don't hesitate to stop me at any time.

**Interpreter:** [Interprets to the patient—for purposes of this training you may repeat the nurse's words in English.]

**Nurse:** I want to first go over with you this document that talks about what you should avoid when you go back home. You should avoid overly strenuous activity for the first few weeks, but it will be good to take a 10- to 20-minute walk every day.

**Interpreter:** [Interprets]

**Patient:** [reads]

**Nurse:** Next, I'm going to go over your medications. This information is very important, so stop me anytime if you don't understand something.

**Interpreter:** [Interprets]

**Nurse:** First, we want you to take aspirin once a day to help keep your blood from clotting.

**Patient:** Are there any side effects?

**Interpreter:** [Interprets]

## Follow-up Questions (Discuss with Partner)

- Did you feel like the interpreter was well-informed for the appointment?
- Did you feel confident that you were getting all of the necessary information from the patient's responses?
- Do you feel confident that the patient is knowledgeable about the conditions of discharge?
- Did you find it difficult to maintain eye contact with the patient?
- How did you arrange yourself, the patient, and the interpreter?
- How could the appointment have gone smoother?

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## Could you check these boxes? (Self Reflection)

### The learner should:

- Introduce him/herself and explain his/her role
- Identify the need for interpreter services within 90 seconds (e.g., I need an interpreter)
- Explain to the caregiver the reason for why an interpreter is needed
- Place iPad/phone in appropriate location when using electronic interpreter OR position him/herself appropriately to work with the in-person interpreter
- Briefly explain the purpose of the interview to the interpreter, especially for sensitive appointments (such as suspected child abuse)
- Ask the patient one question at a time
- Present information at a pace that is easy to follow for both patient and interpreter; that is, give information in "digestible chunks" and/or allow appropriate pauses
- Avoid using medical jargon and/or acronyms
- Maintain direct eye contact with the patient instead of with the interpreter
- Ask questions in the first person (e.g., "Do you feel...?" versus "Does your foot...?")
- Utilize teach back to ensure patient comprehension (e.g., "Can you explain what you understand of the plan to me?")
- Lean on interpreter for cultural cues (e.g., patient does not want to be touched, no eye contact is normal, male speaking on behalf family/wife is normal, etc.)
- Remember body communication should be reassuring (e.g., mannerisms, facial expressions, body language)
- Talk at an appropriate volume (e.g., does not talk louder due to working with an interpreter)
- Address the issues that were of concern to the patient
- Acknowledge and respond to the beliefs, concerns, and expectations about the patient's problems (e.g., if parent is concerned about the end eye affecting the patient)

(Pine, J. et al., n.d.)

## THANK YOU!

Contact me!

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