

# Limited English Proficiency and Chronic Pain Treatment

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## Introduction

Limited English proficiency strongly inhibits one's ability to participate in the workforce and succeed economically. With over 80% of the LEP population being immigrants, the population's social and economic integration is disadvantaged compared to their native-born counterparts. Although 45% of LEP workers are high school graduates and 15% are college graduates, they receive 39% lower earnings than their counterparts of similar education levels (Dews). This increases the likelihood of the LEP population's chances of being in poverty – 25% of LEP individuals live below the poverty line. This rate is twice as high as their English speaking counterparts (Batalova). Living below the poverty line causes great financial stressors, which can affect the physical and mental health of an individual. In "Pain as a global public health priority," Goldberg writes that "persistent exposure to deleterious social and economic conditions activates the human body's fight-or-flight response to a state of perpetuity. In turn, the persistent accumulation of stress hormones such as cortisol has been robustly correlated with a number of diseases and negative health outcomes" such as chronic pain (Goldberg). In the study "Socioeconomic Disparities in Pain: The Role of Economic Hardship and Daily Financial Worry," scientists found that "financial stress was associated not only with greater exposure to daily financial worries, but also with greater vulnerability to pain on days when daily financial worries were experienced" (Rios). Dorner et al in "The impact of socio-economic status on pain and the perception of disability due to pain" furthers that patients of lower socio-economic levels experience pain as a disability two to three times more than their counterparts who have the same pain levels (Dorner). With the greater likelihood of experiencing chronic pain, the question arises as to how LEP patients are treated for chronic pain. Here, I will discuss how the importance of language in pain communication results in Limited English Proficiency (LEP) chronic pain patients experiencing a uniquely high degree of challenges that result in a lower quality of treatment.

## Language is intimately tied to pain

Even for English-speaking patients, communicating chronic pain can be difficult because the tometrics to explain pain are nonexistent. Usually, doctors rely on physical signs such as abnormal bloodwork to provide patients with a diagnosis and treatment. But because physical signs do not always exist in chronic pain patients, patients must rely on their communication abilities for a diagnosis (Witten). Since the pain is part of their everyday life, it is even more difficult to explain because they don't know life without it. Doctors often ask "is the pain dull or sharp" or "on a scale of 1 to 10, what is your pain level?" These questions are quite broad and the answers vary greatly from patient to patient based on how they interpret the question.

The article “Constructions of chronic pain in doctor–patient relationships: bridging the communication chasm” by Dianna T. Kenny explores the difficulties associated with chronic pain communication. Kenny notes that this communication difficulty stems from the prevalence of biogenic theory, which is an ideology that relies on finding physical damage that validates the pain. The study analyzed the accounts of twenty chronic pain patients and twenty-two physicians who treated chronic pain. The main result of the paper is that patients are committed to the biogenic model of pain and want to find the underlying cause of their pain. Yet at the same time, physicians are trying to convince their patients that there are no more medical tests or treatments available so the root cause of their pain must be psychological. This discrepancy between the goals of the patient and physician is a major factor towards chronic pain communication difficulties. If a patient is LEP, they may be committed to finding the root cause of their pain and want to figure out how to communicate the right information necessary. Their inability to communicate directly with a physician could cause them to feel helpless and more disconnected when the doctor provides the psychological model.

To learn more about the communication of chronic pain, I interviewed Dr. Thomas Anderson, an anesthesiologist and chronic pain research scientist, about the chronic pain patient/physician interaction. He has been part of acute and chronic pain services. He says that “pain is very subjective and affected by genetics, social factors, mood, psychiatric comorbidities such as anxiety, depression, which make it hard to measure because it is not straightforward.” He further explained that pain is “really difficult for patients to describe and physicians to understand with underlying variables.” Furthermore, the one to ten scale of describing pain is difficult for doctors to contextualize because numbers have different meanings for each patient. For example, a 10/10 pain score for one patient could mean they can’t even speak and their heart rate is elevated. For another patient, a 10/10 pain score could mean that they can still speak and have a normal heart rate. He says that “differences in how patients describe levels of pain leads to a disconnect for physicians.” Dr. Thomas Anderson also validated Dr. Kenny’s research of pain communication. He explained that “the overlap with mood/personality disorders and pain is so high that effectively treating chronic pain can only be done with co-treatment of mood disorder.” However, people greatly resist the psychological model “thinking they are crazy” and just want “the pain itself to be treated.” Dr. Anderson discussed that he has trouble explaining this to patients. He says, “as someone who hasn’t had the experience [of the patient’s pain], how do I effectively communicate [the treatment] to you [the patient]?” He further explained how physicians’ biases also impact their adoption of the psychological model. He explained: “When I go to a child record’s to see psychiatry notes, there is an extra layer of security– a pop-up that says this is restricted access and should only look at them if necessary. [This pop-up] tells physicians that mental disorders are different diseases that should really be treated as diseases patients have that need to be treated.” The perpetuation of the stigma against psychiatric disease among doctors prohibits the communication of the true, holistic model of pain to patients.

I also interviewed Dr. Anuj Aggarwal, an anesthesiologist and pain specialist at Stanford Medicine. He echoes the importance of communication in pain management, saying doctors are “completely dependent on them telling you they are in pain and must rely on patients' reports.” Especially for chronic pain management, he says “we only deal with pain that people haven't been able to figure out a good structural biomedical cause for.” He says that “part of communication is not just the words—it is the intonation, tone, and nonverbal cues they use.” Even with verbal communication, he says the words they use have great meaning. For example, “my pain is really bad” versus “my pain is cruel” versus “my pain is punishing” gives him insight into how severe the pain is and how the patient perceives their pain, which is key to what treatment plan he should prescribe. He notes that “singular word choices or repetition of my question” is a sign of how severe the pain is – “if people are repeating the same information, it is a sign of severation and what they think.” Even the way that patients describe their treatment—as a cure, a plan, a fix, a treatment— can affect his understanding of their pain management goals. He further emphasizes the unhelpfulness of the 1-10 pain scale, saying “the only point of the number is for insurance.” He explains how this scale “assumes a base 10 system and linear model.” For example, if a patient has a favorite or sacred number, they may not respond according to the assumed model. He also highlights the connection of language as a way to cope with and understand one's pain. He says, “pain centers are connected to social centers of the brain” and “our communication and language is intimately tied to biology.” He explains how most people “understand their pain through a narrative” and “form a narrative for various reasons such as coping.” He highlights how this becomes challenging for physicians because “people use language to make sense of their pain” and these narratives are not necessarily an accurate description of their journey.

### **Native tongue is essential for explaining pain**

In “Impact of Language Barriers on Quality of Care and Patient Safety for Official Language Minority Francophones in Canada,” de Mossaïc studied interviews with Francophone patients in Canada receiving care from English-speaking providers and found that patients were unable to express their pain in English, even if they understood it. In patient interviews, one patient said, “I can't function 100% in English. If I'm hurting somewhere and I can't describe my pain in English, it will be difficult for the doctor.” Another patient explained, “I had never realized that I couldn't speak English when in pain. I'm perfectly bilingual, but when I'm in pain, I'm not.” These testimonies point to a greater problem: even if patients can understand English or speak it well, they need to use their mother tongue to explain their pain because the severity of the pain is difficult to describe in a different language. This is important because the study states that patients “who felt they could normally communicate in English reported losing this ability in situations of stress, intense pain, or while under the influence of medication.” Furthermore, these patients are less confident in their care and feel disadvantaged because of the language barrier

(de Mossaic). These patient experiences are validated by another study that asked patients to take a pain questionnaire in their mother tongue and second language (either Swedish or Finnish). They found that patients who reported low proficiency in their second language had significant differences between the two exams, proving that it is more difficult to communicate pain symptoms in a non-native language (Mustajoki). Dr. Anuj Aggrawal further explained that patients who can speak English still “have struggled to communicate concepts with cultural constructs of pain that don’t necessarily translate to English.”

Looking deeper, there is a psychological basis to this need for the native tongue to explain the pain. In the article “When words burn – language processing differentially modulates pain perception in typical and chronic pain populations,” they asked patients to read sentences using different pain words and then rate their pain. The scientists found “that pain language comprehension modulated participants’ ratings of pain intensity,” with chronic pain patients having greater reactions to pain language. This study shows how connected language is with pain and the emotion towards pain, especially for chronic pain patients (Vukovic). In the review paper “Affective processing in bilingual speakers: disembodied cognition?,” Aneta Pavlenko finds that language has more emotion and embodiment when it is the native language (Pavlenko). The findings of these studies explain why some patients are unable to explain their pain in their non-native language even when they are completely proficient in it, furthering the need for native language to be used to explain pain.

### **The Impact of Language Barrier on Quality of Care**

The greatest barrier to a high quality of care for LEP chronic pain patients is access to healthcare insurance. Only 50% of adults aged 18 - 64 who are Limited English Proficient have health insurance, compared with 87% of adults who are English Proficient (Lu). This results in reduced access to healthcare, especially pain clinics. With about 1 in 5 adults experiencing chronic pain, pain management clinics are already overburdened, leaving less availability for patients. The impact of COVID-19 has had a significant impact on pain management clinics, with many physical and cognitive therapy programs suspended (Javed). In a perspective paper “Impact of COVID-19 on chronic pain patients: a pain physician’s perspective,” pain management physicians write that they “are having to walk the fine line of balancing the previously on-going opioid crisis and now this pandemic in managing the pain with the limited resources available” (Javed).

One Swiss clinic performed a research study on patients who did not speak one of Switzerland’s four national languages or English. They found that, of the patients who were nearly impossible to communicate with, the average consultation time was ten minutes shorter than those with better communication abilities. They also noted the extra costs with having a translator and the consequences of an ad hoc translator (family, friends, etc) who were more likely to commit

errors and could inhibit discussion of “sensitive issues such as domestic violence, substance abuse, psychiatric illness and sexual health.” This shows how the quality of care the patients received was dramatically affected by the language barrier, especially because longer consultation times are important in chronic diseases like chronic pain (Ruppen).

My interviews have provided me with two insights to the lower quality of care from a health-setting perspective: problems with translators and unconscious biases from physicians.

Translators are the best option for communication across a barrier, yet they often don’t capture the important aspects of pain communication. In our interview, Dr. Anderson said that “going through an official medical interpreter is slow and fraught with errors.” He explained that “there are times where [the patient] speaks for a long time and the interpreter speaks for a sentence or vice versa. There is clearly a lot of summarizing.” He explains how “the length at which a patient speaks and emphasis they use affects pain management” – these parts are lost in the translation process. Dr. Aggrawal further explained that the “quality [of translators] is exceedingly variable.” He says “the challenge is that I don’t know the quality of translation because there is no verification, especially for rarer languages or dialects.” He echoes Dr. Anderson’s above point, saying “I hear what is clearly a sentence and the translator just says yes. So, information is clearly being filtered.” The loss of information prevents the doctor from providing the best treatment to their knowledge and adds an extra barrier between the doctor and patient.

Title VI of the Civil Rights Act of 1964 mandates that hospitals have translators for patients who are Limited English Proficient, but this is poorly enforced. In the article “Patterns of interpreter use for hospitalized patients with limited English proficiency,” researchers found that “43 percent of hospitalized patients with LEP had communicated without an interpreter present during admission, and 40 percent had communicated without an interpreter present after admission” (Schenker). Many of these communications occur with ad hoc interpreters such as family members.

Furthermore, unconscious biases of physicians affect the care of LEP patients. Dr. Anderson said it is “not just the language, it is the fact that someone speaks a different language that impacts my bias.” Languages give clues to cultures, which are often associated with different ways of perceiving pain. For example, Dr. Anderson discussed a time when he was in residency and the doctors heard of “communication amongst Central Americans that epidurals cause lower-back pain.” He said that knowing the bias against having an epidural during labor and delivery influenced doctors because they would go into conversations with Central Americans or patients he perceived to be Central American from the language barrier less enthusiastic and informative about the options. These biases, subconscious and conscious, cause patients to be less educated about potential treatments and receive less treatment time. In “Postoperative pain management in children, parental English proficiency, and access to interpretation,” scientists found that LEP

pediatric post-operative patients received 2 less visits per day compared to their English speaking counterparts. The fewer visits resulted in the medications that were effective: LEP patients reported 45% more pain after being medicated compared to their English speaking counterparts who had the same initial pain score (Jimenez). Clearly, these unconscious biases are having a large effect on the quality of treatment that LEP patients receive for their pain.

## **Conclusion**

With 1 in 5 Americans experiencing chronic pain (Yong) and 2 in 5 Americans having Limited English Proficiency (US Census Bureau), the population affected by this problem accounts for approximately 1 in 12.5 Americans. Because language is intimately tied to pain, a patient needs to use their native language to explain the pain and the doctor needs to use clues from the patient's language to understand and diagnose the patient. If the doctor and patient do not speak the same language, the quality of treatment worsens because of poor quality translations and unconscious biases. The result of lower quality of care is that patients receive worse treatments and ultimately live in more pain. This reduces their social and economic mobility because they are unable to integrate with society that prefers able-bodied people. The average reported reduction in work productivity is 9.8 hours per week for patients with multisite pain (Kawai). The reduced social and economic mobility worsens social conditions and causes more pain for the person, furthering the cycle. This never-ending cycle greatly contributes to the uniquely high degree of challenges that LEP chronic pain patients face.

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