

**Closing the Gap in Emergency Medicine: Enhancing EMS Communication
Through a Spanish Communication Badge and Patient Rights Pamphlet**

Honors Thesis

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By

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Abstract

Language barriers in emergency medical settings result in consequences greater than a simple miscommunication. Communication gaps between providers and patients complicate care coordination, decrease quality of care, and lower overall patient satisfaction, leaving patients underserved in systems designed to protect them. To combat these challenges, a quick, Spanish communication badge and patient rights pamphlet were developed with the intent of assisting emergency medical services (EMS) personnel in emergency encounters with Spanish-speaking patients. A three-part methodological approach was used to obtain data, focusing on independent literature review, formal coursework, and primary data collection. Findings from all three sources were utilized to guide the content, formatting, and design of the final badge and patient rights pamphlet. The primary outcome of this project is a physical communication badge tool designed for use by EMS personnel during encounters with Spanish-speaking patients with limited English proficiency and an accompanying patients rights pamphlet. Phrases on the badge are provided in English and Spanish, with phonetic spelling found below each Spanish phrase, making the tool accessible to providers with no prior Spanish experience. The patient rights pamphlet, written entirely in Spanish, complements the badge by providing Spanish-speaking patients and their families with accessible information about their rights during an EMS encounter, in a hospital, and average cost of emergency services. Together, the badge and pamphlet function as coordinated tools to address both provider and patient needs, equipping providers with tools to communicate as accurately as possible and equipping patients with the knowledge to understand and exercise their rights. This approach is a start to addressing care gaps for Spanish-speaking patients, and demonstrates that improving care for underserved populations requires not only providers willing to communicate in another language, but greater encouragement for patients themselves to meaningfully participate in their own care.

Introduction

The medical field can be an intensely vulnerable space for patients, often marked by uncertainty, a sense of lost control, and heightened anxiety. Adding a language barrier into this environment often makes these already uncomfortable situations worse for Spanish-speaking patients who are unable to communicate with their providers and health care team (Carrasquillo et al., 1999; Steinberg et al., 2016). In the United States, the population most vulnerable to this gap is growing rapidly. Latinos make up the largest minority population in the United States and comprise a majority of the 25 million people with limited English proficiency (Steinberg et al., 2017). Additionally, Spanish is the fastest growing non-English language in the United States, with the need for bilingual providers growing alongside it (Kelson et al., 2022; Lloyd & Kosack, 2020). However, the healthcare workforce has not kept pace with this need with only 6% of physicians identifying as Hispanic and only 2% of non-Hispanic physicians reporting being able to speak Spanish in 2019 (Balch, 2023).

Legal efforts to address barriers in healthcare do exist, with the Affordable Care Act serving as one of the most prominent frameworks designed to protect patients with limited English proficiency. According to the Affordable Care Act, entities that receive federal health funding and are involved in federal health programs are required to provide translation and interpretation services by qualified interpreters and translators to people with limited English proficiency (D'Avanzo & Lessard, 2024). Although these resources are available in a majority of healthcare settings including hospitals and clinics (Turner et al., 2019), these services in emergency settings such as ambulance calls and emergency departments are challenging as these visits are not planned. Language barriers in these emergency situations have continued to complicate care coordination, decrease quality of care, and lower overall patient satisfaction (Carrasquillo et al., 1999; Steinberg et al., 2016; Chan et al., 2010).

Material Overview

To combat these challenges, a quick, Spanish communication badge and patient rights pamphlet were developed with the intent of assisting EMS personnel in emergency interactions with Spanish-speaking patients. The badge was designed as a communication tool to be used by specifically EMS personnel. The badge consists of common phrases used in emergency care interactions, organized by encounter type. A phrase is provided in English, with the Spanish phrase and phonetic spelling next to it. The phrases are grouped by “Introduction”, “Patient Intake”, “Chronic Diseases”, “Consent for Treatment”, “In Depth Introduction”, “Comfort Phrases”, “Stretcher Communication”, and “Graphics”. The badge was designed to be used as a quick communication tool to be used by EMS personnel who have no experience with the Spanish language. The front of the badge was designed to include the most vital information for these encounters, with the back of the card including more “high quality patient care” communication terms. The patient's right pamphlet was designed as an educational resource to be used specifically by Spanish-speaking patients and family members. The pamphlet outlines the legal rights of patients during emergency encounters, focusing on rights during ambulance care, rights in a hospital, process of refusing care, and average cost information for emergency services. The pamphlet was designed to complement the badge, both together serving as a dual resource addressing both provider communication needs and patient rights education.

Methods

Online Research

A systemic review was conducted using the following publishers: Springer Nature, Science Direct, PubMed, JMIR, Medisan, DOAJ. To refine search results, the following keywords were used: medical Spanish, underserved, translation, interpretation, emergency medicine. 11 viable sources were obtained and utilized in this project.

Interactive classroom setting

In addition to independent research, this project was inspired and supported by concepts and objectives learned in LSPA 346: Spanish for Health Professions at Colorado State University. This course covered specific linguistic and cultural issues necessary to function in the Hispanic health care world, including specialized terminology, relevant grammatical structures, traditional cultural practices, and healthcare-specific communication skills (Miller De Rutté, 2025). Course objectives were as follows:

1. Demonstrate understanding of medical Spanish vocabulary
2. Analyze cultural practices, impacts, and influences as they pertain to Spanish-speaking populations
3. Deconstruct social determinants of health as they relate to the Spanish-speaking world
4. Investigate the connection between language, culture, and health in the Spanish-speaking world
5. Simulate/roleplay patient interactions

These objectives align closely with existing research that emphasizes the importance and current need for culturally competent healthcare education (Hardin et al., 2024; Mozaffari et al., 2022).

Participant polling

To inform the development of the Spanish communication badge, a Google Forms titled *Spanish Communication Needs During EMS Encounters* was sent out and completed by EMS personnel across varying roles and experience levels. The survey included a combination of multiple-choice and short-response questions designed to assess the most important information obtained during EMS encounters and the functionality and effectiveness of a Spanish communication guide. Questions were structured as either multiple choice answers or open-ended, free response answers. Participation in this survey was voluntary, responses were collected anonymously, and participants were recruited from Poudre Fire Authority and Colorado State University EMS Club. Data from the survey was used to identify common communication challenges, crucial encounter information, and feedback of translation and interpretation guides previously or currently used in the field.

Results

Participant overview

The findings from the *Spanish Communication Needs During EMS Encounters* survey directly informed the content and format of the badge. Respondents included 4 emergency medical technicians, 4 paramedics, and 1 firefighter. 1 participant had less than 1 year of experience, 2 participants had 1-2 years of experience, and 6 participants had over 3 years of experience in emergency medical services. All participants noted encountering Spanish-speaking patients in their field of work, with over 50% of participants encountering these patients often (see Figure 1). These results confirm that language barriers are a recurring challenge in EMS settings, affirming the need for a standardized, accessible communication resource (Chan et al., 2010; Turner et al., 2019).

How often do you encounter Spanish-speaking patients with limited English proficiency?
9 responses

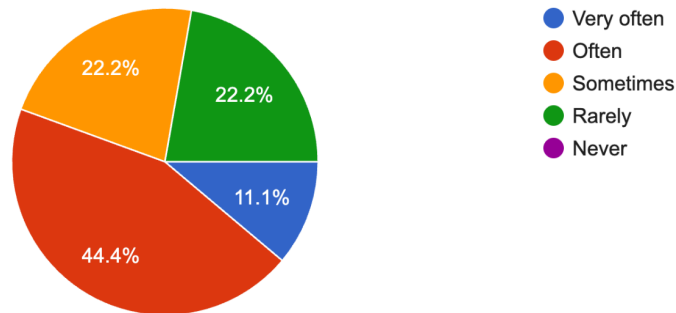


Figure 1. Percentage of frequency of encounters with Spanish-speaking patients

Communication during EMS encounters

When asked about the most critical information to obtain from a patient during EMS encounters, respondents most frequently identified the following categories (see Figure 2). These findings guided the prioritization of content included in the badge in the “Patient Intake” section.

In your experience, what information is most critical to obtain from a patient when there is a language barrier?

9 responses

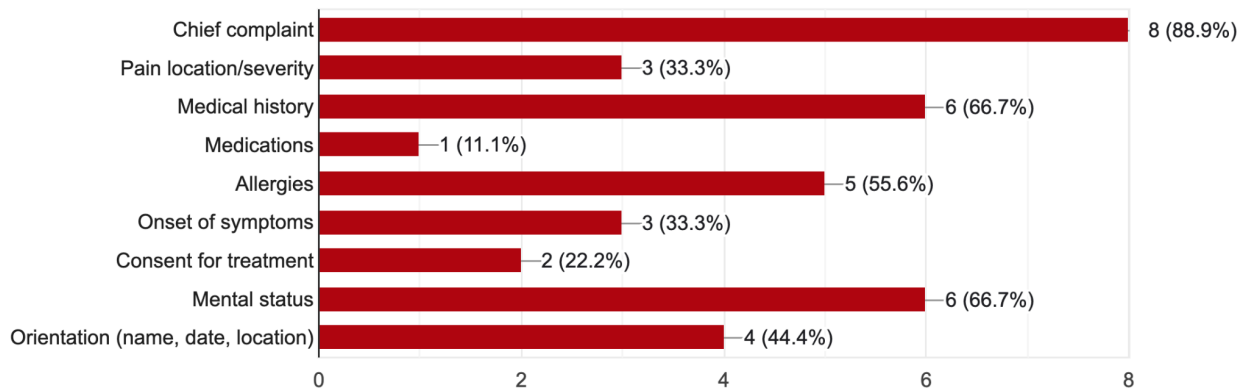


Figure 2. Most critical information to obtain from a patient when there is a language barrier

Based on survey findings, the badge was designed with a deliberate two-sided structure to accommodate the range of situations EMS providers encounter. The front of the badge is dedicated solely to emergency phrases, including phrases that address only high priority information needed in time-sensitive scenarios. This information is expected to establish safety, obtain consent, and begin general assessment of the patient. Specifically, this side includes introductions, patient intake questions, common chronic diseases that the patient may have, and a consent for treatment question.

The back of the badge contains more in-depth phrases to support higher-quality patient care when time allows. This side includes in-depth introduction statements, including establishing the level of Spanish that the EMS worker has, comfort phrases, stretcher transportation phrases, and pain management. The rationale for this division is supported by respondent feedback that only the most essential communication is realistic and beneficial in high-stress situations, while more complete patient histories can be gathered once a patient is stabilized or en route to a hospital for further treatment.

Survey respondents were asked to select which categories of Spanish phrases they would find most useful in a quick-translation guide (see Figure 3). These results validated the chronological organization of the

badge, which groups phrases by clinical function. Respondents were also asked to identify phrases frequently used that were not included in the original question. This feedback prompted including a stretcher communication section on the badge to ensure patient safety and understanding. The responses to this question were as follows:

1. “Couple of bumps” transport, loading patient onto stretcher, loading stretcher, etc.
2. I am going to assess you for _____
3. Have you ever experienced this pain/ medical condition?
4. How long have you had *chief complaint*, what changed with *chief complaint* to make you call an ambulance today?

What Spanish phrases would be most useful in a quick-translation guide?

9 responses

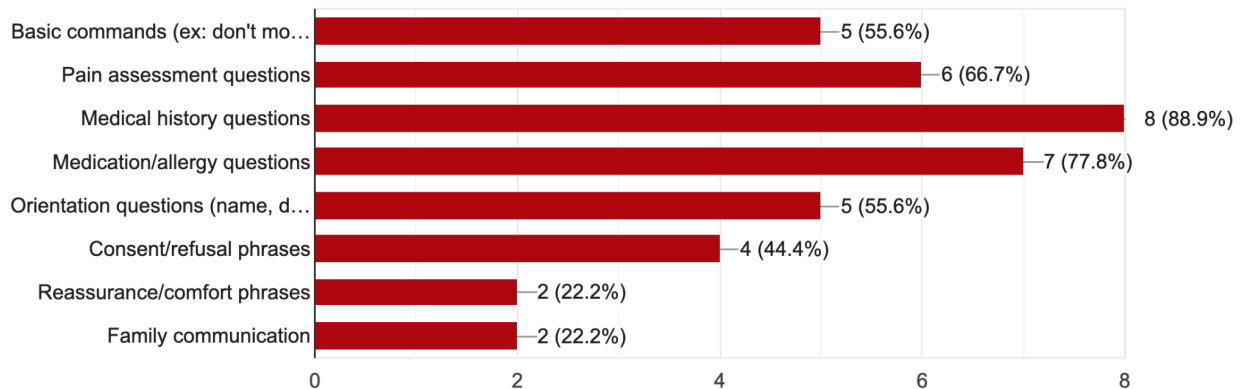


Figure 3. Spanish phrases that would be most useful in a quick-translation guide

Comorbidities

Information was obtained from LSPA 346 coursework regarding most common chronic diseases and translations for these comorbidities. These included diabetes, hypertension, pregnancy, cancer, heart disease, Alzheimer's, and dementia. By knowing current diseases, EMS personnel can better understand and treat symptom demonstration.

Previous translation tools and feedback

88.9% of respondents reported having used some form of translation tool during EMS encounters, including Google Translate, badges, family members and phone interpreters. Feedback on these tools demonstrate consistent limitations with time management, accuracy of communication, and patient comfort. Several respondents noted that translation apps are cumbersome under time pressure and inaccurate when translating between the patient and provider. One respondent observed that written translation tools are particularly problematic because patients in acute distress are often unable or unwilling to focus on reading. Another respondent noted that native Spanish speakers often respond to basic Spanish phrases by speaking rapidly, making communication with personnel with limited Spanish proficiency difficult. Video interpreter services were noted as effective, however these are not always accessible in an ambulance setting. Family members were identified as a preferred translation resource when available, though reliance on family member translation raises concerns about clinical accuracy and patient privacy (Chan et al., 2010).

Further feedback was obtained by asking the respondents for ideas on how to make the communication badge realistic and useful in high-stress EMS encounters. Respondents consistently emphasized simplicity, speed, and visual accessibility, using phrases such as "short, sweet, simple," "quick and user friendly," and "make it basic and easy to use." One respondent explicitly recommended that full sentences are unnecessary. Another respondent recommended making the patient aware that they only speak a little bit of Spanish and asking them to speak slowly to have better expectations and outcomes from the conversation.

Final badge

These recommendations directly informed the formatting decisions behind the badge. Content was condensed into brief, bolded phrases organized by category, with phonetic spelling underneath each phrase to make the words accessible to EMS personnel who have never spoken Spanish before. The

physical badge format was selected because it is immediately accessible, does not take up a lot of room, is relatively cheap to mass produce for EMS personnel, and is easily navigated in emergency encounters. The final badge, displayed in Figures 3 and 4, reflects the survey-informed prioritization of emergency communication on the front of the badge and comprehensive, higher quality intake and communication on the back of the badge.

Emergency Phrases			
Introductions		Chronic Diseases	
Hello my name is	Hola, me llamo (oh-lah, meh yah-moh)	Do you have any of these?	¿Tiene alguno de estos? (TYEH-neh ahl-goo-noh deh ehs-tohs)
I am here to help you	Estoy aquí para ayudarle (ehs-toy ah-kee pah-rah ah-yoo-dar-leh)	Diabetes	Diabetes (dee-ah-BEH-tehs)
We are going to the hospital	Vamos al hospital (bah-mohs ahl ohs-pee-tahl)	Hypertension	Hipertensión (ee-pehr-tehn-SYOHN)
Patient Intake		High cholesterol	Colesterol Alto (koh-lehs-teh-ROHL AHL-toh)
I am going to ask yes/no questions.	Voy a preguntar si o no preguntas. (boy ah preh-goon-tahr see oh noh preh-goon-tahs)	Pregnant	Embarazada (ehm-bah-rah-SAH-dah)
Are you in pain? Where? Point.	¿Tiene dolor? ¿Dónde? Señale. (TYEH-neh doh-lor? dohn-deh? seh-NYAH-teh)	Cancer	Cáncer (KAHN-sehr)
How long? Hours, days, weeks?	¿Cuánto tiempo? ¿Horas, días, semanas? (kwahn-toh tyem-poh? oh-rah-s, dee-ah-s, seh-mah-nah-s)	Heart Disease	Cardiopatía (kahr-dyoh-pah-TEE-ah)
Do you have any allergies?	¿Tiene alergias? (TYEH-neh ah-lehr-hyahs)	Alzheimer's	Alzheimer's (ahl-SEY-mehrs)
Do you have any chronic medical conditions?	¿Tiene alguna enfermedad crónica? (TYEH-neh ahl-GOO-nah ehn-fehr-meh-DAHD KROH-nee-kah)	Dementia	Demencia (deh-MEHN-syah)
		Consent for Treatment	
		Do you consent to treatment/transport	¿Consiente el tratamiento/transporte? (kohn-SYEN-teh el trah-tah-MYEN-toh / trahns-POR-teh)

Figure 3. Front of badge

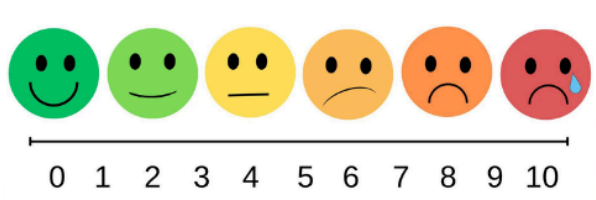
Intake Phrases			
In Depth Introduction		Stretcher Communication	
I only speak a little Spanish	Solo hablo un poco de español (soh-loh ah-bloh oon poh-koh deh ehs-pah-nyoh)	A couple of bumps ahead.	Un par de baches próximamente (oon par deh BAH-chehs proh-KSEE-moh-mehn-teh)
Do you speak English?	¿Habla inglés? (ah-blah een-glehs)	We are going to lift you up.	Vamos a levantarse (BAH-mohs ah leh-bahn-TAHR-seh)
Can you speak slower?	¿Puede hablar con más despacio? (PWEH-deh ah-BLAHR cohn mahs dehs-PAH-syoh)	We are going to strap you in.	Vamos a abrocharse (BAH-mohs ah ah-broh-CHAR-seh)
Comfort Phrases		Graphics	
Who can we call for you?	¿A quién podemos llamar? (ah KYEHN poh-DEH-mohs yah-MAHR)	How severe is your pain? Point.	¿Qué tan intenso es su dolor? Señale. (keh tan een-TEN-soh ehs soo doh-LOHR? seh-NYAH-leh)
Is there a preferred hospital?	¿Hay algún hospital preferido? (eye al-GOHN os-PEE-tahl preh-feh-REE-doh)		
You are going to be ok.	Va a estar bien (bah ah ehs-tahr byehn)		
Do not worry.	No se preocupe (no seh preh-oh-koo-peh)		
We will help with the pain.	Ayudaremos con el dolor (ah-yoo-dah-REH-mohs kohn ehl doh-LOHR)		

Figure 4. Back of badge

Patient rights pamphlet

While the survey data primarily informed the development of the badge, the need for a complementary patient resource emerged from a broader observation embedded throughout the research process: that closing the communication gap in emergency medicine requires equipping patients with the knowledge and understanding to meaningfully participate in their care. The patient rights pamphlet (see figures 5 and 6) was written entirely in Spanish to ensure it was immediately accessible to the population it was designed to serve, without requiring any English proficiency or translation tools to navigate.

The pamphlet's content was informed by legal regulations under EMTALA and HIPAA, including the right to refuse care and implied consent (Warby et al., 2023; Legal Clarity, 2026). Average cost of emergency care was researched and included in this pamphlet, so patients are informed and aware of any

financial commitment they are making when collaborating on their care plan. This information was obtained during the literature review phase of this project.

Costos promedios

De media, ¿cuánto cuesta un viaje de ambulancia?

- Sin seguro: \$500-\$3,500
- Con seguro privado: \$250-\$1,500
- Con Medicare: \$240

¿Cuánto cuesta un día en el hospital?

- Un promedio de \$3,025.

¿Puede cambiar el coste?

- Sí, el coste final depende de la medicación administrada, la severidad de la enfermedad y otros servicios.

¿Qué hago si no puede pagar?

- Puede decir que no quiere tratamiento.
- Pregunta por programas de ayuda financiera o el plan de pagos.
- Ir a otras clínicas o lugares de servicios médicos.

Fuentes:
<https://healthcostsinstitute.org/all-heci-reports/ambulance-trends-over-10-years-2012-2021/>
<https://www.debt.org/medical-hospital-surgery-costs/>



DERECHOS DE LOS PACIENTES

Guía de los derechos durante los encuentros de emergencias

MÁS INFORMACIÓN



Derechos de EMTALA en los departamentos de emergencia



Figure 5. Patient rights pamphlet side 1

Rechazar tratamiento

¿Tiene el derecho de decir que no al tratamiento?

- Sí, este derecho está protegido por la ley.

¿Qué es AMA?

- AMA significa "Against Medical Advice" o "Contra el Consejo Médico." Es un papel que usted firma cuando dice que no al tratamiento aunque el médico piense que lo necesita.

¿Qué necesita para decir que no?

- Debe entender su situación y lo que puede ocurrir si dice que no.
- El paramédico debe explicar los riesgos, el problema médico, y las opciones.
- Si entiende todo y todavía dice que no, la decisión es válida y debe ser respetada.

¿Hay casos en los que no puede decir que no?

- Sí. Si no está consciente, alerta o no puede pensar con claridad, los paramédicos asumen que quiere recibir ayuda. Esto se llama "consentimiento implícito."



En la ambulancia

¿Puede decir que no al tratamiento en una ambulancia?

- Sí, los pacientes tienen derecho a decir que no al tratamiento y al transporte.
- "Consentimiento implícito" aplica en las ambulancias

¿Los paramédicos pueden compartir mi información médica?

- No sin su permiso. Una ley llamada HIPAA protege su información médica. HIPAA se aplica en todos los lugares médicos.

¿Puede elegir a qué hospital ir?

- No siempre. Los paramédicos siguen reglas sobre a qué hospital llevarse. Estas reglas dependen de qué tan cerca está el hospital, qué tan seria es su condición, y qué servicios tiene el hospital.

¿Qué pasa si dice que no al tratamiento o al transporte?

- Su decisión debe ser respetada. Todavía tiene opciones para recibir ayuda:
 - **Sala de emergencias:** Pida a alguien que lo lleve, o maneje usted mismo solo si se siente bien.
 - **Clínica de urgencias:** No necesita cita previa. Es una buena opción si su condición no es muy seria y cuesta menos.
 - **Su médico:** Llame para una cita lo antes posible.



En el hospital

¿Puede el hospital declinar atención?

- No. Una ley llamada EMTALA dice que los hospitales deben atenderle si llega a la sala de emergencias.

¿Qué va a pasar cuando llegue al hospital?

Un médico hará un examen para ver si tiene una emergencia médica.

¿Qué pasa si el hospital no puede tratarme?

- Si el hospital no puede ayudarlo, primero debe asegurarse de que está estable. Después, pueden llevarlo a otro hospital que sí pueda ayudarlo. El hospital no puede moverlo a otro lugar a menos que un médico decida que es más seguro para usted ir a otro hospital.

¿Puede decir que no al tratamiento en el hospital?

- Sí. Al igual que en la ambulancia, tiene el derecho de decir que no al tratamiento. El médico debe explicar los riesgos antes de que firme el papel de AMA.

¿Puede pedir un intérprete en el hospital?

- Sí, la mayoría de los hospitales tienen acceso a intérpretes.

Figure 6. Patient rights pamphlet side 2

Discussion

The findings from the survey sent out to EMS personnel, prior research on language barriers in the medical field, and content from the medical Spanish course all assisted in developing a tool that begins to close care gaps for Spanish-speaking patients. Language barriers, as discussed already, are a concern first and foremost for patient safety and quality of care (Carrasquillo et al., 1999; Steinberg et al., 2016). When providers cannot effectively communicate with their patients, critical information may go uncollected, increasing the risk of misdiagnosis and delayed treatment. In EMS encounters, these risks are even higher,

as encounters are much more time sensitive, and many tools such as translation services are not accessible. The badge functions as a tool to lower these risks by providing EMS personnel with simple Spanish phrases to eliminate delays with using translation apps, waiting for a phone interpreter, or relying on family members as translators (Turner et al., 2019; Chan et al., 2010). The goal of this tool is more accurate patient intakes, resulting in better clinical outcomes and experiences for Spanish-speaking patients. The badge does not seek to replace language proficiency, instead, it equips EMS personnel with targeted clinical phrases that enable timely, accurate assessment, informed consent, and potentially life-saving intervention in the absence of a shared language.

Perhaps the most significant impact of this project lies in what it represents for health equity. Spanish-speaking patients with limited English proficiency are among the most vulnerable populations in the American healthcare system (Steinberg et al., 2016). Research consistently shows that language-discordant care is associated with lower patient satisfaction, inaccurate care plans, and reduced likelihood of follow-up care. In the emergency setting, where time is often the most critical variable, these disparities can have life-altering consequences (Carrasquillo et al., 1999; Steinberg et al., 2016; Kelson et al., 2022).

The development of a free, accessible, field-ready translation tool is a step toward closing this gap during encounters prior to a hospital admission or further care. The patient pamphlet that accompanies the badge extends this equity focus by ensuring that Spanish-speaking patients and their families can access information about their legal rights during an EMS encounter and future healthcare settings. Many patients from Spanish-speaking communities may be unaware of these rights, and the pamphlet was designed to make that knowledge accessible in a culturally and linguistically appropriate format (D'Avanzo & Lessard, 2024).

Together, the badge and pamphlet function as a coordinated intervention at both ends of the provider-patient relationship, equipping providers with the language tools to ask the right questions, and

equipping patients with the knowledge to understand and exercise their rights. This dual approach reflects a broader understanding of health equity: that improving outcomes for underserved populations requires not only better tools for providers, but greater empowerment for patients themselves.

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