Assessing the Effect of Language Barriers on the Perception of Care Received by Spanish-speaking Patients in Baltimore, MD

Ramsha Chaudhary

Department of Modern Languages, Linguistics, and Intercultural Communications (MLLI);

Department of Biochemistry and Molecular Biology,

University of Maryland, Baltimore County (UMBC)

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Thesis Defense Committee:

David Beard, Ph.D. (Mentor)

Tania Lizarazo, Ph.D.

Maria Manni, Ph.D. (ABD)

Abstract

The United States (U.S.) is home to an immensely diverse population, among which lies a large majority of Hispanic-Americans who speak Spanish as a first language. Despite this overwhelming presence of Spanish speakers in the U.S., the healthcare system is severely under equipped in providing adequate care to non-English speaking individuals. The aim of this study is to understand the effects of language barriers on the perception of care received by Spanish-speaking patients in Baltimore, MD, while also considering the effectiveness of current solutions. While similar studies have been previously conducted, this investigation hopes to address patient, physician, and interpreter perspectives in order to adequately assess current metrics for providing quality care in the presence of linguistic barriers. Data was collected from these three distinct populations through the use of survey questions addressing four core areas: comfort, use of resources, understanding, and satisfaction. Participants specifically included: 2 Spanish-speaking patients, 1 Spanish-speaking physician, and 2 English-speaking physicians. Results from the surveys were analyzed and interpreted using qualitative methods comparing participants at an individual level.

Introduction

In the United States, approximately 40 million people speak Spanish as their primary language (L1), but only 8% of physicians speak Spanish, including both native and non-native speakers with varying levels of proficiency (Balch, 2023). This immense disproportion between Spanish-speaking patients and physicians who are able to provide language concordant care pushes these individuals to seek other means of treatment or to avoid healthcare altogether. While this issue may present itself simply as a linguistic barrier that could be overcome with the

use of an interpreter, in reality, language concordant care is closely tied to ethnic and cultural awareness. Physicians with both the language skills and cultural competency needed to treat patients of diverse backgrounds will allow for better health outcomes for underserved and underrepresented populations. While interpreters are also a suitable solution for tackling language barriers in the healthcare setting, there is a historic underuse by physicians. Thus, promoting the use of interpreters or creating an ease of access to language services in spaces where bilingual physicians are not present is also a necessary means to improving health outcomes.

Literature Review

While previous literature has aimed to address the quantitative relationship between language barriers and health outcomes in Spanish-speaking communities, this study aims to put statistical values into context. How do the individuals who are directly affected by language barriers *feel* and are these thoughts and sentiments shared by the professionals providing the care?

Achieving Quality Care

In 2004, the Patient-Reported Outcomes Measurement Information System (PROMIS), was developed by the National Institute of Health (NIH) in order to provide a standardized means of assessing the patient perspective following treatment ("PROMIS," 2021). These assessments aim to give healthcare providers more insight into how patients perceive the quality of care they receive by assessing three core areas: physical, mental, and social health before and after receiving care. As of 2019, an estimated 38% of providers use Patient-Reported Outcome Measures (PROMs) in their practice, the results of which are used to improve both patient experience and the metrics that define quality care (Bees, 2019). By addressing physical, mental,

and social health in these assessments, providers and administrators are able to gain a better grasp on how the manner in which they provide care translates into particular health outcomes. While PROMs are increasingly being implemented in healthcare facilities across the country, these assessments provide limited insight into how ethnolinguistic differences and limited English proficiency (LEP) can not only reduce the quality of care given by health professionals, but can also alter how this care is perceived by the patient.

Through several studies conducted over the past two decades, clear indicators of a correlation between language concordance and a more positive perception of care received by Spanish-speaking individuals have come to light. In a 2014 study conducted by Detz et al., compliance with suggested self-care activities in a population of 250 diagnosed diabetic Latino individuals living in rural areas was surveyed via phone interviews. In cases where the patient and their physician shared a language, patients were more likely to report feeling involved in their care process and feeling respected by their provider (Detz et al., 2014). These findings translate to an urban setting as well, as shown in a study conducted by Napoles et al. in which the satisfaction of 1,664 patients hailing from four distinct groups in relation to metrics of the interpersonal process of care (IPC) were assessed (Napoles et al., 2009). IPC refers to a framework developed to improve communication between physicians and minority patients by addressing the sociopsychological aspects of human interaction ("IPC," 2007). Through Napoles' study, it was found that for Spanish-speaking Latinos, a lack of clarity (an IPC metric) had a negative association with satisfaction, indicating that language discordance led to a lower probability of Spanish-speaking patients being satisfied with their care (Napoles et al., 2009).

Apart from differences in patient satisfaction and understanding, additional studies have been conducted to address tangible differences in the utilization of healthcare services between

LEP Spanish-speaking individuals and English proficient (EP) individuals. In a 2014 study by Lopez-Cevallos et al., researchers assessed medical mistrust, satisfaction with healthcare, and perceived discrimination in a population of 387 Latino adults between the ages of 18 and 25. While the number of healthcare visits made by these individuals did not vary, their overall satisfaction with the services provided significantly decreased when patients felt high levels of medical mistrust and perceived discrimination (Lopez-Cevallos et al., 2014). As demonstrated by previous studies, language concordant care can lead to greater levels of patient satisfaction and understanding, which in turn can contribute to better health outcomes.

Current Solutions

When faced with a language barrier in the healthcare setting, patients are presented with several options: a bilingual physician, hospital provided interpreter, English-speaking family member, or a private interpreter. Among these options, bilingual physicians have been shown to significantly improve patient satisfaction with their healthcare provider and to reduce the number of revisits to the emergency room by Spanish-speaking patients (Jacobs et al., 2007). However, as reported by Felida et al., only 39.7% of physicians in the U.S. report being multilingual, with only 9.6% reporting the use of a language other than English. Among these multilingual physicians, 35.5% reported speaking Spanish, of which about 59.3% reported frequent use of Spanish in patient care (Felida et al., 2023). While there may be a large number of Spanish-speaking physicians in the U.S., lack of training and confidence in second language use could be attributing to the startling underuse of Spanish in the healthcare setting.

Although bilingual physicians are an option for LEP individuals, this is not the standard. In the U.S., hospitals receiving federal funding are legally required to ensure access to interpretation services for LEP individuals, as mandated by Title VI of the Civil Rights Acts of

1964 (US DOJ, 2024). These services are available in-person, over the telephone, or digitally via interpretation service applications such as the Video Relay Service (VRS). A review conducted by Heath et al., found that patients reported higher levels of satisfaction with in-person interpreter services. These higher levels of satisfaction were also associated with more positive scores for communication and subsequent use of the services (Heath et al., 2023). However, despite the reportedly better outcomes seen in patient health with the use of interpretation services, many physicians report underuse of interpreters. In a study conducted by Diamond et al., researchers interviewed 20 internal medicine residents from urban hospitals with interpretation services available. While the residents reported knowing how to request interpreters, and acknowledged that interpreters contribute to an increased quality of care, it was found that a majority of the residents do not routinely request interpreters and prefer to "get by" without them. The reasons cited were variable, but time constraints and a physician-centered approach in which only clinically relevant information was collected are two large contributors to this avoidance of interpreter services (Diamond et al., 2008). This underuse can also be attributed to the over-reliance on family interpreters. In a study conducted by the Centers for Medicare and Medicaid Services (CMS), 4,708 healthcare workers were surveyed, 40% of which were physicians. Respondents indicated that, when faced with a language barrier, 41.25% employed the use of bilingual staff to interpret and 37.85% used family members. Respondents were allowed to indicate the use of multiple strategies to manage language barriers in this survey, but the heavy reliance on family members to interpret, a seemingly harmless choice, is notable (CMS, 2017).

With an average wait time of 20 minutes for an official interpreter in the U.S., with some states requiring reservations several days in advance, family interpreters are an attractive solution

to getting around a linguistic barrier (Burkle et al., 2017). However, it is important to consider the detrimental effects of relying on family members to interpret. In a 2008 study by Rosenberg et al., researchers outlined the differences in the roles of professional versus family interpreters. They found that while family interpreters were able to adequately transfer information between the physician and patient, personal opinions and biases were often included as well. With professional interpreters, on the other hand, this bias is eliminated and information is exchanged between the patient and physician in an exact manner (Rosenberg et al., 2008). While interpreting services are provided by hospitals, they are underused by physicians, thereby reducing the quality of care being provided to limited English proficiency individuals. Implementing a widespread use of interpreters should be explored further, using physician-centered surveys to elucidate solutions to rectify their immense underuse of language services.

Physician vs. Patient Centered Care

A recent shift in the healthcare setting and medical school curricula has pushed providers to employ a patient-centered approach in their practice of medicine. As defined by the U.S. Centers for Medicare and Medicaid Services (CMS), patient- (or person-) centered care is a practice in which providers approach the needs of a patient by addressing physical, mental, behavioral, and social needs (CMS, 2023). Physician-centered care, on the other hand, gives full responsibility to the physician to assess and make decisions about the patient's health (Nix and Szostek, 2016). This movement towards patient-centered care has brought the patient to the forefront of their own health, allowing for the recognition of each patient as a unique individual with particular circumstances influencing their health. Rather than simply identifying an issue and subsequently prescribing medication, physicians are now prompted to learn more about the

patient and apply what is known about the patient's lifestyle to achieve more relevant and sustainable solutions for the individual (Epstein and Street Jr., 2011). Limited studies are available highlighting the effectiveness of patient-centered care over physician-centered care; however, considering the widespread implementation and enforcement of patient-centered care across the U.S., this method has proved effective in improving patient satisfaction and health outcomes.

Methodology

Participants

Five participants completed this study (N = 5)[1]. Two of these participants were Spanish-speaking patients who have received care from a Baltimore City hospital over the past year, two participants were English-speaking physicians working in Baltimore City, and one participant was a Spanish-speaking physician working in Baltimore City.

Materials

Participants were recruited using flyers and direct communication via email (See Appendices A and B for recruitment materials). Materials include the creation of a 21 question survey for each category of participant (Spanish-speaking patient, English-speaking physician, Spanish-speaking physician, and Spanish interpreter). The survey includes four categories (comfort, use of resources, understanding, and satisfaction), each of which has 5 questions that ask participants to rank or rate a given prompt. The final question is an open-ended reflection asking participants to consider the role language barriers have played in their personal experiences in the healthcare setting (See Appendices C-F for full list of questions).

Procedure

Data collection in this study was conducted through Google Forms. Participants were asked to complete a consent form informing them of the extent of their participation as well as their contributions to the research question. Following completion of the consent form, participants were directed to complete a pre-screening through which the relevant participants were selected (See Appendices G-I for screening questions). If the participant met the criteria, they were then allowed to proceed with the study questionnaire. Participants were asked five questions pertaining to comfort, five questions relating to their use of resources, five questions about understanding, and finally, five questions about satisfaction, all pertaining to these categories in the healthcare setting. Questions asked patients to either rank or rate the given answer choices, but questions did not require a response. Finally, participants were asked a single open-ended question prompting them to reflect on their experience dealing with language barriers in the healthcare setting.

Hypotheses

In order to better understand the data collected in this study, key questions pertaining to each participant type were outlined:

Research Question 1 (RQ1): Does the presence of a language barrier worsen the perception of the quality of care received by Spanish-speaking patients?

- **Hypothesis 1 (H1)** = Yes, language barriers introduce room for misinterpretation and a sense of distrust, which can worsen the perception of care received by a patient.

Research Question 2 (RQ2): Do English-speaking physicians find interpreters necessary?

- **Hypothesis 2 (H2)** = Yes, interpreters bridge the doctor-patient gap when a language barrier is present.

Research Question 3 (RQ3): Are bilingual physicians a more effective solution than interpreters?

- **Hypothesis 3 (H3)** = Yes, doctors have both the medical and linguistic knowledge to appropriately address patient needs.

Results

Assessing Patient and Physician Perspectives on Level of Comfort

Table 1. Rating for level of comfort (1 being not comfortable at all and 5 being completely comfortable) by two Spanish-speaking patients in three given scenarios. Both participants indicate complete comfort when speaking to a Spanish-speaking physician.

Patient Rating for Comfort Level with Spanish-Speaking Physicians vs. Interpreters			
	Question	**Participant 1**	**Participant 2**
Q1	How do you rate your comfort level speaking to a Spanish-speaking interpreter?	3	5
Q2	How do you rate your comfort level speaking to a Spanish-speaking physician?	5	5
Q3	How do you rate your comfort level discussing sensitive topics with an interpreter present?	1	5

Table 2. Rating for level of comfort (1 being not comfortable at all and 5 being completely comfortable) by two English-speaking physicians. Both participants indicate the same level of comfort when speaking to patients with or without an interpreter present as well as when discussing sensitive or medically complex information through an interpreter.

English-Speaking Physician Rating for Comfort Level with and without Interpreters			
	Question	**Participant 1**	**Participant 2**
Q1	How do you rate your comfort level speaking with a Spanish-speaking patient without an interpreter present?	1	1
Q2	How do you rate your comfort level speaking to a Spanish-speaking patient with an interpreter present?	5	5
Q3	How do you rate your comfort level conveying sensitive information through an interpreter?	5	5
Q4	How do you rate your comfort level conveying medically complex information through an interpreter?	5	5

Table 3. Rating for level of comfort (1 being not comfortable at all and 5 being completely comfortable) by a Spanish-speaking physician.

Spanish-Speaking Physician Rating for Comfort Level with and without Interpreters		
	Question	**Participant 1**
Q1	How do you rate your comfort level speaking with a Spanish-speaking patient without an interpreter present?	3
Q2	How do you rate your comfort level speaking to a Spanish-speaking patient with an interpreter present?	5
Q3	How do you rate your comfort level conveying sensitive information with your current proficiency level of Spanish?	3
Q4	How do you rate your comfort level conveying medically complex information with your current proficiency level of Spanish?	3

Assessing Patient and Physician Perspectives on Use of Resources

Table 4. Rating for degree of use of resources by two Spanish-speaking patients in five given scenarios. Questions 1 and 2 ask patients to rank their response to the given prompt on a scale of 1 to 5 (1 being never and 5 being every visit). Questions 3 and 5 asked patients binary questions with only a yes or no response. Question four offered three potential responses: yes, no, or sometimes.

Patient Rating for Use of Resources Pertaining to Language Services			
	Question	**Participant 1**	**Participant 2**
Q1	How often have you employed the use of a hospital-provided interpreter during a healthcare visit?	2	2
Q2	How often have you employed the use of a family interpreter (e.g. a sibling or child) during a healthcare visit?	1	5
Q3	I have actively searched for a Spanish-speaking physician over an English-speaking one.	Yes	Yes
Q4	I always check what languages a physician offers prior to booking an appointment.	Yes	Sometimes
Q5	I have searched for private medical interpreting services.	No	No

Table 5. Rating for degree of use of resources by two English-speaking physicians in five given scenarios. The following scales were used for each question: Q1, not at all to completely (1-5); Q2, never to every visit (1-5); Q3, very easy to very difficult (1-5); Q4-Q5, strongly disagree to strongly agree (1-5).

English-Speaking Physician Rating for Use of Resources Pertaining to Language Services			
	Question	**Participant 1**	**Participant 2**
Q1	I understand how to request interpreter services and the range of services provided by my hospital.	5	5
Q2	How often do you employ the use of hospital-provided interpreters during a healthcare visit (where one would be needed)?	5	5
Q3	How easy is it to request an interpreter?	1	1
Q4	I prefer to rely on family interpreters or colleagues rather than requesting	1	1

	an official interpreter.		
Q5	Requesting an official interpreter is too time consuming.	1	2

Table 6. Rating for degree of use of resources by a Spanish-speaking physician in five given scenarios. The following scales were used for each question: Q1, never to every visit (1-5); Q2, strongly disagree to strongly agree (1-5); Q3, very easy to very difficult (1-5); Q4-Q5, never to often (1-5).

Spanish-Speaking Physician Rating for Use of Resources Pertaining to Language Services		
	Question	**Participant 1**
Q1	How often do you employ the use of hospital-provided interpreters during a healthcare visit?	3
Q2	I understand how to request interpreter services and the range of services provided by my hospital:	5
Q3	How easy is it to request an interpreter?	2
Q4	I refer to training materials regarding the use of Spanish in the healthcare setting.	2
Q5	I seek support from other bilingual physicians to navigate providing care in multiple languages.	2

Assessing Patient and Physician Perspectives on Level of Patient Understanding

Table 7. Rating for degree of understanding by two Spanish-speaking patients in five given scenarios. A scale of one to five was provided, 1 being strongly disagree and 5 being strongly agree. Both patients reported higher confidence in their level of understanding after a visit in which an interpreter was present.

Patient Rating for Level of Understanding of Personal Health			
	Question	**Participant 1**	**Participant 2**
Q1	I feel confident with my understanding of my health after a visit with only an English-speaking physician.	3	4
Q2	I feel confident with my understanding of my health after a visit with an English-speaking physician with an interpreter present.	4	5
Q3	I feel confident with my understanding of my health after a visit with only a Spanish-speaking physician.	5	4

Q4	I feel confident about discharge instructions given to me directly by a physician.	3	4
Q5	I feel confident about discharge instructions given to me by a Spanish-speaking interpreter.	3	5

Table 8. Rating for degree of understanding by two English-speaking physicians in five given scenarios. For Q1-Q4, a scale of one to five was provided, 1 being strongly disagree and 5 being strongly agree. For Q5, 1 was denoted as never while 5 was associated with always.

English-Speaking Physician Ranking for Confidence in Patient Understanding of Health			
	Question	**Participant 1**	**Participant 2**
Q1	I feel confident with the patient's understanding of their health after a visit without an interpreter present.	1	1
Q2	I feel confident with the patient's understanding of their health after a visit with an interpreter present.	5	4
Q3	I feel confident in my ability to converse effectively with a patient through an interpreter.	5	5
Q4	I feel confident in the patient's understanding about instructions given by me.	5	4
Q5	I take extra time to ensure that a patient fully understands what was discussed during their healthcare visit.	5	4

Table 9. Rating for degree of understanding by a Spanish-speaking physician in five given scenarios. For Q1-Q4, a scale of one to five was provided, 1 being strongly disagree and 5 being strongly agree. For Q5, 1 was denoted as never while 5 was associated with always.

Spanish-Speaking Physician Ranking for Confidence in Patient Understanding of Health		
	Question	**Participant 1**
Q1	I feel confident with the patient's understanding of their health after a visit without an interpreter present.	3
Q2	I feel confident with the patient's understanding of their health after a visit with an interpreter present.	4
Q3	I feel confident in my ability to converse effectively with a patient in Spanish.	3
Q4	I feel confident in the patient's understanding about instructions given by me in Spanish.	3
Q5	I take extra time to ensure that a patient fully understands what was discussed during their healthcare visit.	4

Assessing Patient and Physician Perspectives on Level of Patient Satisfaction

Table 10. Rating of degree of satisfaction by two Spanish-speaking patients in five given scenarios. A scale of one to five was provided, 1 being not satisfied at all and 5 being completely satisfied.

Patient Level of Satisfaction with Healthcare Visit			
	Question	**Participant 1**	**Participant 2**
Q1	How do you rate your level of satisfaction with the amount of time and attention you received from your physician during your most recent visit?	2	3
Q2	How do you rate your level of satisfaction with the amount of time and attention you received from your interpreter during your most recent visit?	2	4
Q3	How do you rate your level of satisfaction with the level of respect you receive from your physician during your healthcare visit?	3	4
Q4	How do you rate your level of satisfaction with the level of respect you receive from your interpreter during your healthcare visit?	3	5
Q5	How do you rate your level of satisfaction with healthcare services provided by English-speaking physicians?	3	4

Table 11. Rating for degree of satisfaction by two English-speaking physicians in five given scenarios. A scale of 1 to 5 was provided, 1 being strongly disagree and 5 being strongly agree.

English-Speaking Physician Level of Satisfaction with Healthcare Visit			
	Question	**Participant 1**	**Participant 2**
Q1	I believe my patients are satisfied with the care they receive.	5	4
Q2	I prioritize the patient's satisfaction over time constraints.	5	5
Q3	I am satisfied with the resources provided to me to navigate language barriers.	5	4
Q4	I am satisfied with the training provided to me to work with interpreters.	5	4
Q5	In general, I feel satisfied with the services I provide to a patient, despite language barriers.	5	5

Table 12. Rating for degree of satisfaction by a Spanish-speaking physician in five given scenarios. A scale of 1 to 5 was provided, 1 being strongly disagree and 5 being strongly agree.

Spanish-Speaking Physician Level of Satisfaction with Healthcare Visit		
	Question	**Participant 1**
Q1	My patients are satisfied with the care they receive.	4
Q2	I prioritize the patient's satisfaction over time constraints.	4
Q3	I am satisfied with the resources provided to me to navigate language barriers.	2
Q4	I am satisfied with the training provided to me to provide care in Spanish.	2
Q5	In general, I feel satisfied with the services I provide to a patient, despite language barriers.	3

Perspectives on Favorable Qualities in Physicians and Interpreters

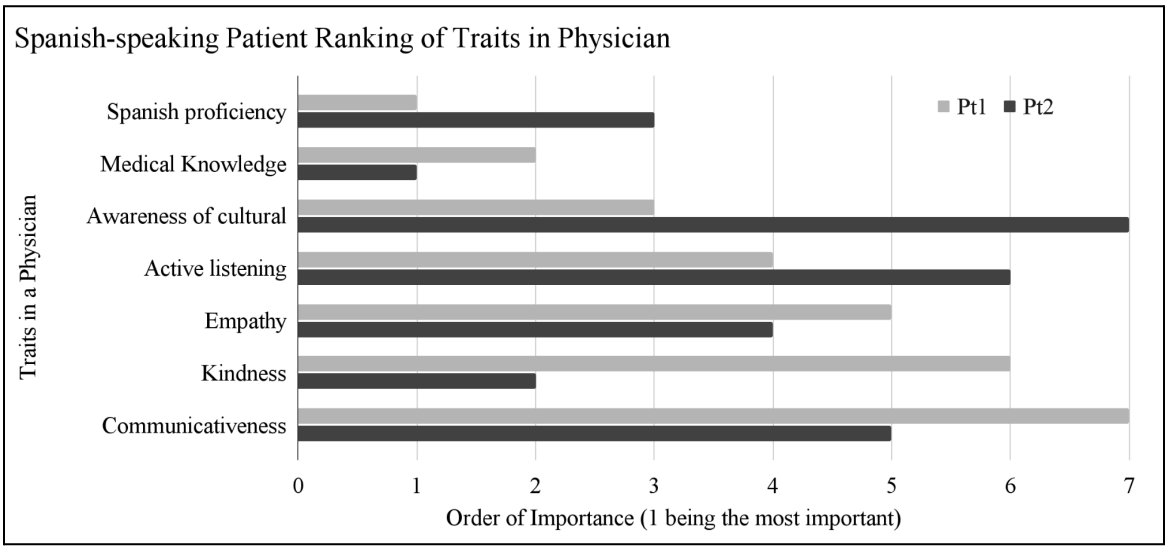

Figure 1. Ranking of seven traits in a physician in order of importance by two Spanish-speaking patients (denoted Pt1 and Pt2 in legend). Both patients ranked Spanish proficiency and medical knowledge among the top 3 most important traits.

Table 13. Ranking of seven traits in an interpreter in order of importance by 2 Spanish-speaking patients (P1, P2), 2 English-speaking physicians (ESP), and 1 Spanish-speaking physician (SSP). Spanish proficiency and active listening were among the top two traits for both physicians and patients.

Ranking of Interpreter Traits by Physician and Spanish-Speaking Patients					
	Patient 1	**Patient 2**	**Spanish-Speaking Physician 1**	**English-Speaking Physician 1**	**English-Speaking Physician 2**
Spanish proficiency	1	1	1	3	1
Active listening	2	2	2	1	3
Empathy	3	7	3	6	7
Scientific knowledge	4	5	7	7	5
Communicativeness	5	3	6	2	2
Awareness of cultural differences	6	4	5	4	4
Kindness	7	6	4	5	6

Discussion

Assessing Patient and Physician Perspectives on Level of Comfort

When considering comfort level among patients when speaking to a Spanish-speaking interpreter (SSI), Spanish-speaking physician (SSPh), or discussing sensitive topics with an interpreter, the two patients varied in their responses. Participant 1 indicated a higher level of comfort, 5, when speaking to a SSPh as opposed to an interpreter, 3 (Table 1, Q1-2). Furthermore, Participant 1 ranked their level of comfort discussing sensitive topics with an interpreter as “not comfortable at all (1)” (Table 1, Q3). Participant 2 on the other hand, ranked their level of comfort in all three scenarios as “completely comfortable (5)” (Table 1). While there is no consensus between the patients, it is evident that concerns about comfort among LEP individuals in healthcare settings are present and should be addressed. This discomfort among

patients can be traced back to the inherent mistrust felt by immigrant populations when it comes to receiving healthcare as demonstrated by Armstrong, et al. in their study looking at Hispanic, African-American, and White levels of physician distrust in the U.S. (Armstrong, et al., 2007). Consequently, the results acquired relating to patient comfort are consistent with H1 in which it is proposed that this sense of distrust can worsen the perceived quality of care for Spanish-speaking individuals.

English-speaking physicians (ESPh) were then asked about their level of comfort when speaking to a Spanish-speaking patient (SSPt) with and without an interpreter present. Both ESPhs noted that they were "not comfortable at all (1)" when speaking to a SSPt without an interpreter present and "completely comfortable (5)" with an interpreter present (Table 2, Q1-2). Additionally, both physicians ranked their level of comfort conveying sensitive and medically complex information to a SSPt with an interpreter present as "completely comfortable (5)" (Table 2, Q3-4). Similarly, the SSPh surveyed rated their comfort level when speaking to a SSPt without an interpreter present as a "3," or moderately comfortable, while their level of comfort when an interpreter is present was ranked as "completely comfortable (5)" (Table 3, Q1-2). Interestingly, the SSPh ranked their level of comfort conveying sensitive and medically complex information to SSPts as a "3," despite their proficiency in Spanish (Table 3, Q3-4). The increased level of comfort seen with both Spanish-speaking and non-Spanish speaking physicians in the presence of interpreters confirms previous studies assessing the efficacy of interpreters. In a study by Wiles et al., researchers found that patients more positively ranked their level of satisfaction and comfort during a healthcare visit when there was an interpreter present (Wiles et al., 2023). These positive perceptions of healthcare interactions in which interpreters are present is a result of patients feeling understood and as though they are able to communicate their needs

effectively, where, in the absence of an interpreter, this would likely not occur. While the results from Table 2 align with H2, which proposes that ESPh find interpreters necessary, the results from Table 3 further call into question whether bilingual physicians are more effective than interpreters, which connects back to H3. A comparison between interpreters and bilingual physicians will further be explored in the following section.

Assessing Patient and Physician Perspectives on Use of Resources

After establishing both patient and physician level of comfort in healthcare interactions where a language barrier is involved, the use of resources pertaining to language barriers was assessed. Patients were asked how often they use hospital-provided interpreters and family interpreters during healthcare visits. Both patients ranked their use of hospital-provided interpreters as "2," or "seldom," while Patient 1 ranked their use of a family interpreter as "never (1)" and Patient 2 ranked it as "every visit (5)" (Table 4, Q1-2). Given the evidence provided by previous studies indicating the effectiveness of interpreters, the lack of use of hospital interpreters by these patients raises the question as to why that is. While Patient 2 employs the use of a family interpreter for each healthcare visit, Patient 1 does not use either a hospital-provided or family interpreter. Patients were then asked about actively searching for a SSPh over an ESPh, looking into the languages offered by a physician prior to booking an appointment, and searching for private interpreting services. Patient 1 indicated that they do search for SSPh over ESPh ones and that they always check languages offered by a physician before booking an appointment (Table 4, Q3-4). While Patient 2 also searches for SSPh over ESPhs, they only sometimes check the languages offered by a physician prior to making an appointment. These results provide further insight into Patient 1's lack of interpreter use and once again poses a question of whether bilingual physicians are more effective or are simply

preferred over interpreters. With bilingual physicians, patients are able to see a healthcare provider with not only the medical knowledge to address their concerns, but also the linguistic capabilities to mold this knowledge to the patient's level of understanding. However, considering the low availability of bilingual physicians across the country relative to the number of LEP patients, questions relating to how and when second language training can be introduced to physicians arise.

Both ESPh and the SSPh surveyed were then asked about their use of interpretation services at their hospital. All three physicians indicated a high level of understanding, "5," of how to request an interpreter at their hospital and both ESPh indicated that they "always (5)" request interpretation services when needed (Table 5, Q1-2; Table 6, Q2). The SSPh, however, rated their use of interpreters as a "3" or "moderate" (Table 6, Q1). Physicians were then asked the ease of requesting an interpreter with both ESPh noting the process as "very easy (1)," while the SSPh rated the process as "2" or "easy" (Table 5, Q3; Table 6, Q3). The difference between the ESPhs and the SSPh can likely be attributed to the difference in the frequency of use of interpretation services, but considering previous studies in which interpreter access, patient indifference to interpreter services, and overuse of family interpreters have been identified as obstacles, there remain other factors to consider. Both ESPhs also indicated that they "strongly disagree" with the following statement: "I prefer to rely on family interpreters or colleagues rather than requesting an official interpreter" (Table 5, Q4). Considering Patient 2's frequent use of a family interpreter during their healthcare visit, it is interesting to consider the physicians' lack of reliance on family members. Previous studies have highlighted the lack of reliability of family interpreters due to emotional attachment and a lack of medical training, as demonstrated in a review by Abi Rimmer in the British Medical Journal (Rimmer, 2020). This dichotomy

represented in patient versus physician preference highlights an interesting conflict, pushing one to ask whether patient comfort supersedes accuracy or vice versa. The most obvious solution is to make patients aware of the resources available to them through their healthcare facility. Many patients are still unaware that hospitals are federally required to provide interpretation services free of charge, which could likely be a deterrent to seeking out care.

The SSPh was also asked about their use of resources provided to them to manage providing bilingual services. They indicated that they "disagree (2)" with the statement asking if they refer to training materials regarding the use of Spanish in the healthcare setting and that they "seldom" seek support from other bilingual physicians (Table 6, Q4-Q5). While these results are interesting, it was not specified whether the hospital this participant works at provides any training materials relating to bilingual care or whether the physician privately seeks such resources; thus, a meaningful conclusion cannot be drawn from this portion of the study. Little data can be found on the training and support provided to bilingual physicians by hospitals, with most sources indicating that these physicians have to pursue external resources to maintain their language skills. In the context of H3, it is likely that with the appropriate training and support, bilingual physicians are a better solution to linguistic barriers in medicine as opposed to interpreters as physicians have both the medical and linguistic abilities to treat patients.

Assessing Patient and Physician Perspectives on Level of Patient Understanding

After assessing the use of language services and resources by patients and physicians, patient understanding was surveyed as well. SSPts were asked to rate their degree of understanding to a set of five statements on a scale of 1 to 5, with 1 pertaining to "strongly disagree" and 5 to "strongly agree." While both participants rated their level of understanding of their health after a visit with an ESPh lower than visits in which an interpreter was present, or

they had a SSPh, the participants' ratings indicated a difference in their preference between an interpreter and a SSPh (Table 7, Q1). Participant 1 rated their level of understanding after meeting with a SSPh higher than when an interpreter was present during a visit with an ESPh, whereas Participant 2 felt the opposite (Table 7, Q2-Q3). Participant 1 also indicated a lower level of understanding of discharge instructions, regardless of who they were given by, whereas Participant 2 also felt more comfortable with discharge instructions given to them by an interpreter as opposed to a physician (Table 7, Q4-5). This variation between the two patients once again indicates the presence of preference that differs across individuals, with some preferring bilingual physicians and others preferring interpreters. Interestingly, Participant 1's suboptimal understanding of discharge instructions (regardless of the source) is a sentiment shared among patients in spite of language barriers and is seen across demographics. As demonstrated by DeSai et al., patients typically find it difficult to follow discharge instructions due to the method of instruction delivery; thus, the moderate level of understanding exhibited by Patient 1 is not necessarily attributed to language discordant care (DeSai et al., 2021).

Both sets of physicians were then asked about their confidence in the patient's level of understanding in four different scenarios, followed by asking how often the physicians take extra time to ensure the patient understands discussions about their health. Both ESPhs rated overall patient understanding higher when an interpreter was present and expressed high levels of confidence in patient understanding of instructions given by them (Table 8, Q1-4). The SSPh also rated patient understanding higher when an interpreter was present as opposed to when just the physician spoke to them in Spanish; however, the SSPhs level of confidence in the patient's understanding of their instructions was moderate (Table 9, Q1-4). In a study from Ortega et al., researchers demonstrated that while 39.7% of physicians in the U.S. report speaking a language

other than English, only 37.3% of these physicians actually report using this language (Ortega et al., 2022). This once again can be attributed to both the physician's level of proficiency in medical Spanish, in addition to other variables affecting patient understanding such as education and comfort levels. All three physicians also agreed that they take extra time to ensure their patients understand what was discussed during a healthcare visit, which is highly valued by patients as highlighted by Roscoe-Nelson and Silvera in their study considering time as a factor in patient centered care (Roscoe-Nelson and Silvera, 2024).

Assessing Patient and Physician Perspectives on Level of Patient Satisfaction

Having defined comfort, use of resources, and level of understanding, the final category assessed through this survey was the level of patient satisfaction with a healthcare visit from the patient and physician perspectives. Patients were asked to rate their level of satisfaction for five given prompts. On average, Participant 2 rated their level of satisfaction for all the prompts higher than Participant 1 and, rated their level of satisfaction with the time, attention, and level of respect received from an interpreter higher than that received by the physician, Participant 1, however, rated their level of satisfaction with interpreters and the physicians equally (Table 10, Q1-5). All three physicians, on the other hand, rated their perception of the patient's level of satisfaction with their care as very high. The physicians also highly rated their prioritization of patient satisfaction over time constraints. Once again, this difference in the patient perspective in comparison to their healthcare providers provides insight into the current manner in which medicine is practiced. While physicians intend to put their patients first, physician-centered models of practice can often make the patient's feelings secondary to the physician attempting to elucidate and solve the patient's "issue." However, when physicians center their care around the

patient and include them in discussions about their health, patients report higher levels of satisfaction (Kwame and Petrucka, 2021).

Finally, physicians were asked about their level of satisfaction with the resources and training provided to them to navigate language barriers, followed by their level of satisfaction with the care they provide. The ESPhs rated their level of satisfaction with resources and training to be high, whereas the SSPh rated their level of satisfaction low for these prompts (Table 11, Q 3-4; Table 12, Q3-4). Additionally, both ESPhs rated their level of satisfaction with the care they provide in spite of language barriers very highly, whereas the SSPh rated their level of satisfaction as moderate (Table 11, Q5; Table 12, Q5). While the difference in these results between ESPhs and SSPhs could be due differences in their grasp of gravity of language barriers, these results could also be indicative of the extent to which each type of physician encounters linguistic discordance in the healthcare setting or their level of confidence in their professional abilities. Providing further, more robust training to physicians when it comes to navigating language barriers is integral to improving the care these individuals administer; consequently, patient comfort and satisfaction with their providers will likely improve due to their physician being well-versed in how to approach language barriers in their practice.

Perspectives on Favorable Qualities in Physicians and Interpreters

As part of understanding patient comfort in the healthcare setting, patients were asked to rank a set of seven traits in physicians. While both patients largely differed in their rankings of traits in a physician, both patients agreed that “medical knowledge” and “Spanish proficiency” are among the top three traits they look for in a physician (Figure 1). The remaining five traits were highly variable in their ranking, which connects back to the uniqueness of every individual and what makes them comfortable.

The patients and both sets of physicians were then asked to rank these seven traits in an interpreter. All but one participant, ESP1, agreed that "Spanish Proficiency" is the most important trait in interpreters, with "active listening" following as a close second (Table 13). While a larger sample size would allow one to elucidate trends in the most valued traits in physicians and interpreters, looking at these rankings at the individual level allows for a greater emphasis on the need for molding care to the patient, rather than trying to fit patients into a mold.

Conclusion

While the sample size in this study was small, the results provide relevant insight into individual patient and physician perspectives. When considering RQ1, the results from this study indicate that the presence of linguistic barriers in healthcare interactions is correlated with lower levels of understanding and satisfaction among patients. Additionally, in relation to RQ2, physicians recognize that having an interpreter present is a key step to increasing patient understanding, comfort, and satisfaction, even when the physician is bilingual. Finally, while it was interesting to see that the SSPh in this study rated their level of confidence in patient understanding without an interpreter to be lower than when an interpreter was present, this information is not sufficient to answer RQ3. Instead, further expansion of this study in which more physicians and patients are recruited is necessary to truly understand if bilingual physicians are a more effective solution than interpreters.

Limitations

Due to current circumstances affecting the target population of this study, recruitment of participants was limited. Additional limitations include the use of Google Forms as the survey

platform as the programming of screening questions and prevention of multiple submissions was limited. In order to recruit more participants, limitations were not set in place to prevent English-proficient Spanish-speaking patients from completing the survey; thus the results are not reflective of only a limited-English proficiency Spanish-speaking population. Studies regarding the role of language barriers in the healthcare setting are limited and lack recency, thus finding relevant literature to contextualize this study in the current socio-political climate in the U.S. was limited, reflecting a need for additional research in this area.

End Note

1. Researchers aimed to recruit 15 Spanish-speaking patients, 5 Spanish-speaking physicians, 5 English-speaking physicians, and 5 Spanish-speaking interpreters (N = 30), but due to limitations of the study, we were unable to. Two participants were excluded due to concerns about response validity.

Appendices

Access the appendices here.

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