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# Ensuring equitable quality care through accessible language services

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**A**ccording to the US Census Bureau, in 2016, 44% of California's population (age 5 years and older) spoke a language other than English at home.<sup>1</sup> The US Department of Justice defined limited English proficiency (LEP) as "individuals who do not speak English as their primary language and who have a limited ability to read, speak, write, or understand English."<sup>2</sup> A total of 25.9 million people in the US reported having LEP in 2015, accounting for 9% of the total population; in California, over 6 million people had LEP (19% of the state population and 26% of the total LEP population).<sup>3</sup>

Language barriers often lead to miscommunication and decrease the quality of care and patient safety.<sup>4</sup> According to the Agency for Healthcare Research and Quality (AHRQ), miscommunication due to LEP has resulted in serious harm such as medication errors, longer lengths of stay, greater risk for surgical delays, and a greater chance of readmission for chronic diseases.<sup>5</sup> Patients with LEP are a vulnerable population because of challenges with understanding health information such as that provided in routine medical visits or hospital discharge instructions. For these reasons, health information provided in the patient's preferred language, including through the use of certified interpreter services, is critical for patient safety.<sup>6</sup>

Not only is it best practice to have a certified interpreter when communicating with people who have LEP, it's also

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the law. According to the National Board of Certification for Medical Interpreters, to become a certified interpreter, individuals must successfully complete a written and oral national exam. The written exam focuses on medical knowledge, code of ethics, roles of the interpreter, cultural awareness, and legislation and regulations. The oral exam focuses on medical terminology, mastery of English and the target language, consecutive interpreting and sight translation from English to the target language, and cultural awareness.<sup>7</sup> In section 1557 of the Affordable Care Act, it specifies that qualified interpreters must be used when communicating with patients who have LEP.<sup>8</sup>

### **Consequences of miscommunication associated with LEP.**

The AHRQ found that communication problems are one of the most frequent root causes of serious adverse events.<sup>5</sup> The AHRQ developed a root cause diagram of patient safety events that demonstrates that LEP and cultural barriers contribute to communication problems resulting in patient safety events and/or more significant risks for medical errors.<sup>5</sup> A study performed by The Joint Commission revealed that out of 1,083 incident reports submitted, 49.1% of patients with LEP experienced physical harm or death compared with 29.5% of English-proficient patients.<sup>9</sup> Patients with LEP are also subject to greater infection risk, falls, hospital readmissions, and delays in treatment.<sup>9</sup>

Another study conducted in an inpatient setting that served a diverse patient population found

inconsistent use of interpreter services by residents and nurses.<sup>10</sup> The majority (91.8%) of residents and nurses reported communicating with families with LEP without an interpreter, and only 0.7% reported “always” using interpreter services.<sup>10</sup> A common theme that emerged from the survey was dissatisfaction with interpreter availability, indicating insufficient access to the resources needed to promote patient safety.

**Rationale for failure to use interpreter services.** The AHRQ conducted qualitative interviews and reviewed incident reports to determine the common causes of adverse events in patients with LEP and identified several reasons that providers fail to use available interpreter services.<sup>10</sup> Nurses reported workarounds including the use of ad hoc interpreters (noncertified interpreters such as family or staff) and their own “basic” language skills (despite lack of fluency).<sup>10</sup> Ad hoc interpreters can be problematic because they might provide unsolicited advice, be unfamiliar with medical terminology, and fail to protect the patient’s confidentiality.<sup>11</sup> Evans and colleagues, in an anonymous web-based survey that asked pediatric residents to rate their language ability and willingness to deliver care to patients with LEP without a certified interpreter, found that 40% of the residents who responded indicated rudimentary skills in a second language, 69% reported using their Spanish skills to communicate with a patient regarding medical advice or taking a history, and 85% relied on ad hoc interpret-

ers to communicate with patients and their families.<sup>12</sup>

The most commonly identified barriers to using interpreter services include the inability to identify needs, cost concerns, lack of resources, and time concerns.<sup>13-15</sup> Jones and colleagues also found that there’s a lack of consistent training in healthcare settings.<sup>13</sup> Usually, training occurs during the implementation phase of interpreter services or at the time of hire but doesn’t include reinforcement or follow-up thereafter. Other barriers discussed included the availability of interpreters and adequate time to request the service and engage in the patient encounter.<sup>14</sup> With over 6 million California residents with LEP, hospitals must adequately staff the interpreter services department to provide timely responses to nurses and other staff members.

**Ways to decrease language barriers.** Baurer and colleagues conducted a qualitative study in which they examined system-level factors that affect clinicians’ perceptions and use of professional interpreters in 12 California hospitals.<sup>16</sup> Through their research, they found five main themes: 1) commitment to improving language access, 2) organization investment to increase language access (such as assisting current employees to become certified in a secondary language), 3) training clinicians on working with interpreters, 4) training and certifying bilingual staff, and 5) organization investment in phone interpreter services.<sup>16</sup> This study suggested that clinicians would be more likely to use certified interpreters when the hospital’s

culture supported and facilitated this process.

Lion and colleagues examined a quality improvement intervention including “provider education, electronic alerts, standardized dual-handset telephones, and 1-touch dialing in all hospital rooms.”<sup>17</sup> Some of the important postintervention findings included an increase in overall interpretation services by 54%, a 53% increase in telephonic interpretation, less frequent use of ad hoc interpreters, and ultimately, fewer delays in care related to the effective use of interpreter services. This study’s results indicate that a comprehensive intervention that integrates technology, access, and training can increase providers’ use of interpreter services.

Evidence suggests that comprehensive intervention with healthcare professionals that includes training, reinforcement, sufficient resource accessibility, and visual cues can overcome barriers to the use of certified interpreters. The purpose of this project was to implement an intervention to increase nurse and healthcare provider use of interpreter services in an inpatient hospital unit and evaluate its immediate effects.

## **Methods**

### *Design*

This quality improvement project was conducted between November 2021 and February 2022. Study authors used a quasi-experimental pretest, posttest design.

### *Setting*

The project was implemented at a Level I trauma center in a large,

academic health system in California. This Magnet®-recognized hospital includes over 100 specialized services inclusive of trauma, surgery, neurology, oncology, transplant, cardiovascular, intensive care, and acuity-adaptable units. This project occurred on one 22-bed acuity-adaptable unit staffed by 45 RNs, 8 certified nursing assistants, 1 unit educator, 1 patient care manager, 2 assistant patient care managers, and 5 NPs as well as an interdisciplinary team of case managers, social workers, physical and occupational therapists, geriatric providers, chaplains, and nutritionists.

### *Participants*

All full- or part-time acuity-adaptable unit nurses were eligible to participate in the study. There were no other exclusion criteria. This project was designated a quality improvement initiative and therefore didn’t undergo further review by the institutional review board.

### *Data collection*

A 10-question multiple-choice presurvey was conducted at the start of the intervention to determine participant knowledge and perceptions regarding certified interpreter service use. The principal investigator created the presurvey based on evidence in the research literature and content expert review. There are no reliability data.

Four questions addressed participant knowledge of the current language interpreter policy, where to find patients’ preferred language in the electronic health record, the various interpreter service options available, and

the phone number to contact interpreter services. The remaining questions addressed perceptions regarding frequency of certified interpreter use versus ad hoc interpreters, wait times to connect with interpreters, barriers, and tools to mitigate barriers.

An 11-question multiple-choice postintervention survey was also administered that included the presurvey questions and an additional question regarding the perceived usefulness of the intervention. Retrospective data on interpreter service utilization from 2 months before the intervention were used as a baseline comparison to utilization after the intervention.

### *Procedures*

The Plan, Do, Study, Act (PDSA) cycle was used to structure the project because it’s a systematic process that allows for continual process improvement. Investigators conducted a total of two PDSA cycles integrating knowledge acquired in the first cycle to improve the second.

**Plan.** The first phase of the PDSA cycle included a multimodal approach. Before beginning this project, meetings were arranged with management, the quality department, and interpreter services to gain a better understanding of the current utilization patterns. Presenting the current status at the beginning of the project alongside the goal enabled the investigators to obtain buy-in from staff.

**Do.** The implementation included administering the pre-education survey followed by in-service education on the significance of language barriers in

care, the urgent need for and potential health consequences of failure to use certified interpreter services, and the various ways to contact interpreter services. The in-service included a live presentation during one, 15-minute daily huddle. The intervention also included a “Preferred Language” sign (visual cue) designed as a prompt to contact certified interpreters when the need was identified: a laminated 8- by 11-inch sheet was placed on any patient’s door who identified a preferred language other than English, along with the direct extension to interpreter services in that specific language. Additionally, nurses were provided access to a newly created “Unit Communication Tool,” created by the principal investigator and interpreter services, that allowed patients to point to key words in their language such as water, food, restroom, and so forth, with the English translation provided next to it. Nurses completed hard copies of anonymous pre- and posteducation surveys and were instructed to place completed surveys in a manila envelope that was kept in the manager’s office.

**Study.** After a 2-month study period, data regarding interpreter service use frequency were collected and analyzed. Descriptive analysis was performed using IBM Statistical Package for Social Sciences (SPSS), version 27. These analyses included frequencies, percentages, and a  $\chi^2$  test of independence. Proportions were calculated for interpreter service use (numerator) versus the overall number of patients who

identified a preferred language other than English (denominator), and a two proportion Z-test was used to compare pre- to postintervention interpreter service use.

**Act.** After the results of the pre- and postsurveys and interpreter service utilization were analyzed for the first PDSA cycle, additional interventions were identified and implemented to improve the use of interpreter services, including further one-on-one education as needed regarding where to locate interpreter services resources. During this phase, the principal investigator audited the use of interpreter services. Nurses who were out of compliance were individually educated regarding the protocol and how to locate the interpreter services resource page on the facility intranet and the “Preferred Language” signs.

### Results

Of the 45 RNs who trained and participated in the unit-wide multimodal intervention, the survey response rate was 60% ( $n = 27$ ) at baseline and 60% ( $n = 27$ ) at completion. Prior to the intervention, 63% of nurses believed that interpreter services were used 50% of the time; after the intervention, that number increased to 90%. Before the intervention, 14% of the participants had read the Interpreter Services Policy, whereas after the intervention, 71% had read the policy.

**Use of correct extension for interpreter services.** Before the intervention, only 1 of 27 nurses used the correct extension. After the intervention, 18 nurses used

the correct extension ( $\chi^2(1) = 23.47, P < .001$ ), suggesting an association between the intervention and the use of the correct extension.

**Proportion of interpreter service calls before and after the intervention.** Prior to the intervention, the proportion of nurses who called for interpreter services was  $0.11 \pm 0.3$  ( $n = 5$ ), and after the intervention, the proportion was  $0.53 \pm 0.50$  ( $n = 24$ ;  $z = -4.80$ , 95% CI =  $[-.59, -.25]$ ,  $P < .001$ ).

### Discussion

The purpose of this project was to implement an intervention to increase certified interpreter service use within an inpatient unit with a multimodal intervention for nursing staff. Investigators found that most of the unit nurses hadn’t read the facility’s Interpreter Services Policy; only 14% of participants reported having read the policy prior compared with 71% after the intervention. These results are similar to other studies in which patient safety education improved staff knowledge and attitudes.<sup>18</sup>

This study also found a lack of knowledge regarding the correct phone number to contact interpreter services; the use of education and visual cues was associated with an increase of correct contact information knowledge from 18% to 53%. These findings are consistent with a study that found a 53% increase in telephone interpretation after a similar intervention.<sup>17</sup> Various interventions including staff education can increase staff use of interpreter services.

Despite evidence suggesting that one of the most frequent root causes of serious adverse events is

communication barriers for patients with LEP, interpreter services aren't consistently used.<sup>10</sup> Prior to the intervention, nurses reported that inpatient staff used interpreter services only 50% of the time it was indicated. These findings are consistent with those of Pilarz and colleagues, who found that only 0.7% of nurses and residents reported "always" using interpreter services.<sup>10</sup> Essentially, the lack of appropriate interpreter service use is common practice within healthcare systems. Because the vulnerable population with LEP has a greater potential to experience severe harm or death compared with English-proficient patients, patient safety must be prioritized and effective communication facilitated in order to ensure equitable, high-quality care.<sup>5</sup>

This study had several limitations to consider when interpreting the results. This study was focused on a selected patient population in a Level I trauma center, resulting in a patient population that isn't typical for most acute care hospitals. Because of this, it might not be generalizable to lower acuity settings. Additionally, the intervention and evaluation were conducted over a 2-month period, with data collection occurring only 3 days per week. It's possible that there were more patients who were eligible for interpreter services than were counted in this study, particularly if they had short lengths of stay. As a result, the overall need for services could be underestimated. Nonetheless, this study's results demonstrate an increase in use from before to after the intervention using the same methods of data collection.

Anecdotally, one barrier to utilization reported by nurses was a lack of time to wait for the limited availability of interpreter services. Interpreter availability is on-site Monday through Friday, 8:30 a.m. to 5:00 p.m., limiting access for evening- and night-shift nurses, resulting in longer wait times because these calls are outsourced after hours, which thus delays care. Additionally, nurses described calling the service line hoping to reach an interpreter and being met with prolonged wait times. These challenges could potentially be mitigated by increasing the number of interpreters hired, especially for the most common languages in the geographic location, as well as by certifying staff who speak languages other than English to serve as interpreters.

### Implications for nurse leaders

Multimodal intervention to increase interpreter service use has the potential to improve patient safety, quality, and healthcare equity by reducing communication barriers for patients with LEP. Ensuring that healthcare facilities provide adequate education, coaching, and accessible information regarding interpreter service contact and resources could improve provider adherence to using interpreter services. There must be greater investment in the interpreter workforce as well to supply the demand.

### Expanding use could reduce risk

This quality improvement project demonstrated that this multimodal intervention was positively associated with an increased number of calls to interpreter services. Future

research should evaluate intervention sustainability over time and evaluate interpreter service use in other disciplines in addition to nursing to promote more effective communication and reduce the risk of adverse events for patients with LEP. **NM**

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