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The Truth About Language Barriers: One Residency Program's Experience

Sonja C. Burbano O'Leary, MD*; Steven Federico, MD*; and Louis C. Hampers, MD, MBA†

ABSTRACT. *Objective.* To describe perceptions of how a lack of house staff Spanish proficiency adversely affects communication with Spanish-speaking families with limited English proficiency (LEP).

Methods. An anonymous, structured questionnaire was administered to the house staff of an urban, university-affiliated children's hospital that serves a population in which 10%–20% have LEP.

Results. Ninety-four percent (59 of 63) completed the questionnaire. Sixty-eight percent (40 of 59) reported that they spoke little or no Spanish (although 36 of 40 expressed a desire to learn Spanish). Fifty-three percent (21 of 40) of these nonproficient residents reported that they used their inadequate language skills in the care of patients "often" or "every day." Many of these residents believed that LEP families under their care "never" or only "sometimes" understood their child's diagnosis (21 of 40), medications (11 of 40), discharge instructions (17 of 40), or follow-up plan (16 of 40). Eighty percent (32 of 40) admitted to avoiding communication with such families. Although all (40 of 40) agreed that hospital interpreters were effective, 30 of 40 nonproficient residents reported use of hospital interpreters "never" or only "sometimes." Fifty-three percent (21 of 40) of these nonproficient residents reported calling on their proficient colleagues "often" or "every day" for assistance. Thirty-two percent (19 of 59) of residents described themselves as "fluent" or "proficient" in Spanish. Fifty-eight percent (11 of 19) reported that they were asked to interpret for fellow residents "often" or "every day." Proficient residents estimated that they spent a mean of 2.3 hours per week interpreting for other residents.

Conclusions. Despite a perception that they are providing suboptimal communication, nonproficient residents rarely use professional interpreters. Instead, they tend to rely on their own inadequate language skills, impose on their proficient colleagues, or avoid communication with Spanish-speaking families with LEP. *Pediatrics* 2003;111:e569–e573. URL: <http://www.pediatrics.org/cgi/content/full/111/5/e569>; *language barriers, Spanish, interpreters, house staff.*

ABBREVIATIONS. TCH, The Children's Hospital; LEP, limited English proficiency; PL, physician level; DHMC, Denver Health Medical Center; OR, odds ratio; CI, confidence interval.

From the *Pediatric Residency Program and †Section of Pediatric Emergency Medicine, The Children's Hospital, Denver, Colorado. Received for publication Aug 20, 2002; accepted Dec 20, 2002. Reprint requests to (S.B.O.) 1117 Mathews St, Fort Collins, CO 80524. E-mail: burboleary@frii.com PEDIATRICS (ISSN 0031 4005). Copyright © 2003 by the American Academy of Pediatrics.

Quality health care becomes more challenging to provide as the United States attracts immigrants from around the world. This is because quality health care requires good communication with families from diverse linguistic and cultural groups.¹ Currently, 1 of every 6 children in the United States is Latino.² In Colorado, the Latino population has undergone enormous growth. Since 1990, the Denver metro area has increased its Latino population by 89%.³ Other counties have increased by as much as 165%.³ Pediatric residents at The Children's Hospital (TCH), Denver, now come in contact with a significant number of Spanish-speaking patients and families with limited English proficiency (LEP). Many of these families are first-generation Mexican and of low socioeconomic status,⁴ but few of our pediatric residents are Latino or are fluent in Spanish. We have noted anecdotal evidence of insufficient availability of culturally competent communication for Spanish-speaking patients with LEP within the hospitals where our pediatric residents train.

The extent and impact of inadequate foreign language proficiency among residency trainees have never been explored. The purpose of this study was to describe house staff perceptions of care for Latino families with LEP. Our goals were to address the following questions: Do residents perceive barriers to communication with LEP families? If so, how do they approach such obstacles?

METHODS

Study subjects were pediatric residents from the University of Colorado, Department of Pediatrics, the only pediatric residency in the state of Colorado. Each major region of the country was equally represented in medical school training. The program in 2000–2001 consisted of 62 residents including chief residents, physician level (PL) 3s, PL 2s, and PL 1s. There were 16 men and 46 women, and all had graduated from US medical schools. These pediatric residents are based at TCH, a freestanding children's hospital in Denver, which is the primary teaching facility for the program. They also spend approximately 25% of their time at Denver Health Medical Center (DHMC), the county hospital. Finally, 10% of their residency is spent at the University Hospital, the primary teaching hospital of the University of Colorado Health Sciences Center and School of Medicine. At the time of this study, formal instruction in medical Spanish was not a residency program requirement. However, in July 2000, an optional 10 hours of instruction in medical Spanish was offered.

TCH in 2000–2001 held 202 beds. In 2000, a total of 206 000 visits were recorded. Of these, 199 000 were outpatient visits. The remaining 6400 were inpatient admissions. Clerical personnel ask families about their race but not their language of preference. Of those outpatient visits, 39 500 (20%) were "Hispanic" children, and of the inpatient visits, 1300 (21%) were "Hispanic" children. These estimates do not include a large number of patients classified as "unknown" (24%). At DHMC, there are ~35 000 infants, children, and adolescents who consider DHMC their primary care

facility. Between 25% and 30% of these patients are Spanish speaking with LEP.⁵ Thus, we estimate that 10%–20% of the families with whom our house staff interact throughout the course of their residency have LEP.

Professional medical interpreters were available at all 3 institutions. Requirements for these positions include a standardized written test at TCH and role-playing interviews (mock scenarios) at TCH and DHMC. Although these individuals are on-site for >18 hours per day for most patient care settings (inpatient floors, emergency department, outpatient clinics), they have simultaneous “on-call” responsibilities for multiple areas in the hospital.

Remote telephonic interpretation is available 24 hours each day in all patient care settings. This interpretation could be accessed by dialing a central number (Language Line Services, Monterey, CA) and requesting a Spanish interpreter. Communication then takes place using a standard telephone handset passed between the interviewer and the historian.

The study design was a structured, self-administered questionnaire that was anonymous and in English administered in the spring of 2001. Although completion of the survey was not mandatory, a small incentive (a gift certificate for a cup of coffee) was provided.

Questions addressed individual fluency, perceived communication with families, and use of various interpreter services available to residents. Most responses were recorded using a 1–4 scale (never = 1, sometimes = 2, often = 3, every day or always = 4).

Data were collected anonymously and put into a Microsoft Excel file (Microsoft, Redmond, WA). Statistical analysis was performed using SPSS 10.0 (Chicago, IL). Dichotomous variables were compared using a χ^2 test and, when appropriate, a Fisher exact test. Additional analyses were performed by converting ordinal responses (ie, 1, 2, 3, or 4) into dichotomous form.

RESULTS

All 62 residents received a questionnaire. Three residents graduated the program without returning the survey and were excluded, leaving 59 (95%) of our sample for analysis. Two (3%) of the 59 pediatric residents are Latino. Twenty-five (42%) of the respondents believed that their Spanish had improved since beginning residency. Subjects were allowed to classify their current Spanish skills into 4 categories: 1) 4 (6.8%) residents reported that they were unable to speak or comprehend any Spanish, 2) 36 (61%) reported having some comprehension but very limited ability to communicate, 3) 13 (22%) classified their skills as “proficient but not fluent,” and 4) 6 (10%) believed that they spoke and understood Spanish fluently. For clarity of analysis, we categorized responses 1 and 2 as “nonproficient” and

groups 3 and 4 as “proficient.” None of the proficient residents reported acquiring their proficiency during medical school.

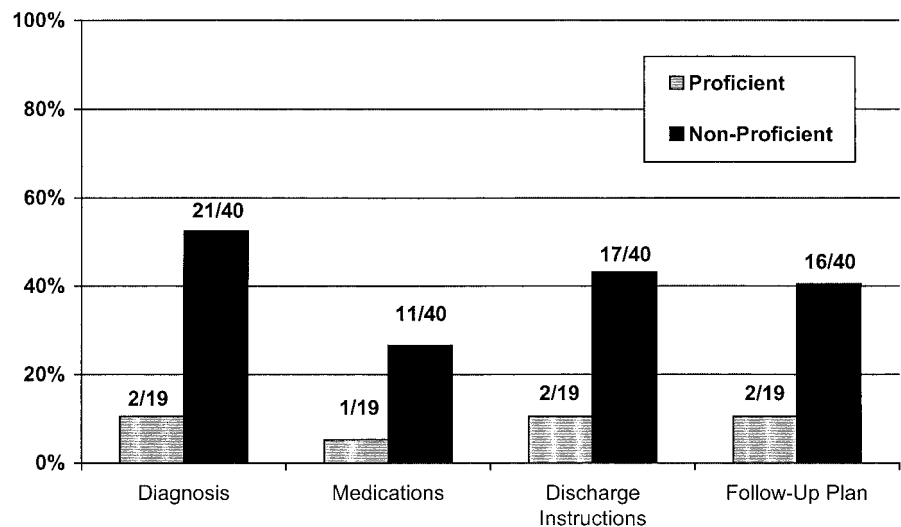
Twenty-one (53%) of the nonproficient residents reported that they used their limited skills to communicate with families “often” or “every day,” and 36 (90%) expressed a desire to learn Spanish. Nonproficient residents were significantly more likely than proficient residents to report that their families with LEP “never” or only “sometimes” understood their child’s diagnosis (odds ratio [OR]: 9.4; 95% confidence interval [CI]: 1.9–46; $P < .01$), discharge instructions (OR: 6.2; 95% CI: 1.3–31; $P = .02$), and follow-up plans (OR: 5.7; 95% CI: 1.1–28; $P = .03$; Fig 1). Regarding family understanding of medications, there was a strong trend toward reporting decreased understanding among the nonproficient residents, but this fell short of statistical significance (OR: 6.8; 95% CI: 0.81–57; 2-tailed Fishers exact $P = .08$).

Of the nonproficient residents, 32 (80%) admitted to “sometimes” or “often” avoiding communication with families with LEP. Fifteen (80%) of the proficient residents reported that they “never” avoided such communication (OR: 15; 95% CI: 3.9–58; $P < .01$).

All of the nonproficient residents (40 of 40) viewed the hospital interpreters at their institutions as “often” or “always” effective in improving communication. A significantly lower proportion (11 of 19) of proficient residents held this view ($P < .01$). Of the nonproficient residents, 32 (80%) believed that available remote telephonic interpretation was “often” or “always” effective. Only 22 (55%) of these residents believed that relying on bilingual family members or acquaintances was “often” or “always” an effective form of communication.

Despite their view that hospital interpreters were the most effective form of communication and that family members were the least effective, nonproficient residents reported using family members more frequently than hospital interpreters ($P < .01$; Fig 2). Residents who reported “never” or only “sometimes” using hospital interpreters were asked why they did not use this service more often. The most

Fig 1. Proportion of residents reporting that monolingual Latino families “never” or “sometimes” understood the care that they provided.



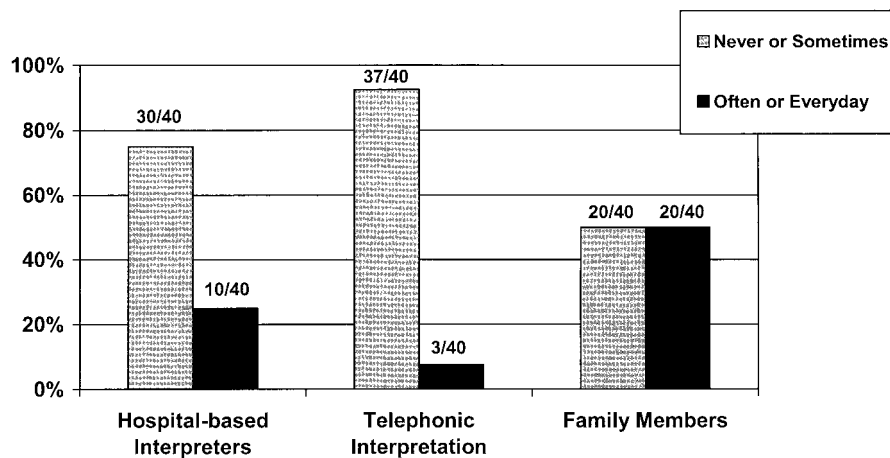


Fig 2. Nonproficient residents use of third-party interpretation.

common reasons cited were waiting time, lack of availability, cumbersome communication, and lack of interpreter medical knowledge. As 1 resident wrote: “[The hospital interpreters]. . . are difficult to get a hold of and don’t translate very well medical-ly.”

Nonproficient residents reported using their proficient colleagues to help them communicate with Spanish-speaking families with LEP. Twenty-one (53%) reported that they did so “often” or “every day.” Similarly, 11 (58%) of the proficient residents reported being asked to interpret for other residents “often” or “every day.” Proficient residents estimated that they spent a mean of 2.3 hours per week interpreting for families of patients other than their own.

DISCUSSION

A number of studies have examined language and cultural barriers and how they affect the cost and quality of patient care.⁶ This study was unique in that we directly examined resident perceptions of their ability to communicate with families with the institutional resources that were available to them.

Our results show that nonproficient residents believe that their inability to communicate interferes with care. They also believe that hospital interpreters are helpful, yet they rarely use them. Instead, they tend to rely on their own inadequate language skills, use family members to interpret, impose on their proficient colleagues, or, most disturbing, avoid communication with LEP families.

Conversely, proficient residents believe that they communicate well with Spanish-speaking families with LEP. They seem more likely to care for such patients and are often asked to interpret for colleagues, attendings, nurses, and social workers. Because of their proficiency, in addition to the usual demands of residency, they spend a considerable amount of their time interpreting for others.

Nationally, an increasing number of physicians are encountering Latino patients with LEP. It is essential to have either Spanish language proficiency among providers or to have other resources available to communicate effectively with these patients,¹ but this relatively sudden increase in the proportion of

Latino patients has outstripped the ability of many health care facilities to provide culturally competent care.^{7,8} Unfortunately, our trainees have few role models to teach them how to communicate with LEP patients. In a recent survey, only 21 (3.3%) of 642 members of the Colorado Chapter of the American Academy of Pediatrics classified themselves as “Hispanic” (American Academy of Pediatrics, membership office, personal communication, January 2002). Nationally, Latinos are underrepresented in medicine and in faculty positions.^{9–11}

In a relatively brief period, house staff must acquire a large fund of medical knowledge while performing essential services for their patients and their institutions. For nonproficient residents, the acquisition of Spanish language skills must compete with other responsibilities. Residents may feel pressured to balance expedience against quality. However, our findings indicate that these residents recognize (with surprising candor) that these undesirable tradeoffs are being made. Such awareness may be an important first step in addressing this issue.

It is unlikely that our results can be explained solely by the residents’ perceived unavailability of professional interpreters. Telephonic interpretation was ubiquitously available, and residents rated this form of communication higher than the use of family members, yet they still used family members much more frequently. The use of telephonic interpretation was cited as “awkward” and “cumbersome.” Review of house staff comments suggests that although the house staff realize that using family members as interpreters is inappropriate or perhaps unreliable, they had a very low tolerance for any measures that they believed delayed completion of the medical interview, yet the potentially adverse impact of using family members as interpreters has been well described.^{12,13} These risks are magnified in pediatric settings, where histories are sometimes taken by minors (siblings), which raises the risk of medical errors.

These findings highlight the need to reexamine the priorities of residency training. In areas where a significant proportion of the population is Latino, it is not unreasonable to make Spanish proficiency a priority when evaluating program applicants (such an

emphasis would presumably have an impact on medical school curricula as well).¹⁴ These programs should also optimize recruitment of qualified Latino applicants, who, because of their fluency and sense of Latino culture, could best communicate with Latino patients.¹⁵ In addition, training programs should try to remove the pressures that lead to culturally incompetent care by increasing opportunities for residents to learn Spanish and learn about the Latino culture. This can be done by offering mandatory classes in medical Spanish,¹⁶ lectures regarding the implications of caring for culturally diverse patients,¹⁷ and training that provides competency in using all forms of interpreters.¹⁸

Our findings should also prompt a reexamination of the priorities of the institutions where residents train. Hospital administration should strive to create a friendlier atmosphere for LEP patients. This may include posting signs in a number of different languages and facilitating the provision of medical information and prescriptions in different languages.⁶ They may also maximize the availability of hospital interpreters by assessing variable needs throughout the hospital. For example, the emergency department may need a dedicated interpreter 24 hours a day,^{8,19} whereas a specialty clinic might share 1 interpreter with other clinics during business hours.²⁰

Finally, these findings raise important considerations at the national level. Important federal initiatives have protected the rights of LEP patients to appropriate interpreter services.^{21,22} The next step consists of facilitating the use of these services. This may include requiring third-party reimbursement for interpreter services.

Our study reflects the experience of 1 large residency training program in a region with a fast-growing Latino population, and, although our circumstances are not unique, our results may have limited generalizability to other settings. In fact, our findings have prompted our own institution to implement many of the changes mentioned above. We hope and expect that replication of our research methods with our current house staff would yield different results from those reported in this study.

There are other important limitations to this study. We relied on the self-reports of the residents regarding aspects of the quality of care that they provided. We did not ask families how they perceived the care that they received from those residents. It has been shown that providers tend to overestimate their ability to communicate with patients with LEP.⁸ A logical follow-up study would look at LEP families' satisfaction with care received, comparing non-English-speaking house staff, interpreters, and bilingual housestaff.^{8,19} We also presume that there is an inherent cognitive dissonance in the acknowledgment by our house staff that they are providing suboptimal care to their patients. Both of these factors should have biased our results toward the null and caused us to underestimate the magnitude of our outcomes.

We queried our house staff regarding the care of Spanish-speaking families with LEP only. We then used our proficient residents as a reference group for

our nonproficient residents. Our assumption was that care provided to Spanish-speaking LEP patients by proficient residents should have mirrored the care provided to English-speaking families by all residents, yet it is conceivable (although unlikely) that our nonproficient group represented a subset of house staff who believed that they were simply poor communicators with all types of patients. Steps to improve Spanish proficiency alone would have limited value for such individuals.

The classifications of "proficiency" were self-reported. We did not formally evaluate Spanish competency. It is possible that some residents misclassified themselves. However, our results regarding the use of "proficient" residents as interpreters for "nonproficient" residents suggests that, from the perspective of their colleagues at least, the classifications were largely accurate.

Despite an acknowledgment that they are communicating poorly with LEP families, we have uncovered a tendency for nonproficient residents to underuse resources available to them. Evidently, for reasons of expediency, they rely on approaches that may be inadequate (their own limited Spanish), inappropriate (family members), or inefficient (proficient colleagues). All training programs, which care for a significant number of Latino patients, should explore measures that might lessen such behavior.

APPENDIX I: QUESTIONNAIRE

1. How would you rate your Spanish-speaking ability? (4-point scale)
2. Where did you learn Spanish (if any)?
3. How many years did you study?
4. How often do you use your Spanish? (4-point scale)
5. How well do you think your patients understand you? (4-point scale)
6. Of the Spanish-speaking-only (SSO) families that you care for, how often (4-point scale) do you feel they understand the
 - a. Diagnosis
 - b. Medications given
 - c. Discharge plan
 - d. Follow-up plan
7. How often do you avoid speaking to SSO families because of communication barriers? (4-point scale)
8. Of all the patients you see, how often are your families SSO?
9. How often do your families PREFER to speak Spanish?
10. Of all the patients you see at The Children's Hospital, how often do you use a "translator"? (4-point scale)
11. How often do you use the following translators? (4-point scale)
 - a. Language line
 - b. Hospital interpreters
 - c. Other residents
 - d. Staff
 - e. Family members
12. Which type do you use most often? Why?

13. Why do you NOT use certain translators available to you?
14. Of the different modalities that you use, how often are they effective at communicating with your patients? (4-point scale)
 - a. Language line
 - b. Hospital interpreters
 - c. Other residents
 - d. Staff
 - e. Family members
15. How often do you wish you could speak Spanish better? (4-point scale)
16. What have you done during residency to improve your Spanish?
17. What can the residency program do to help you improve your Spanish?

IF YOU SPEAK SPANISH

1. Do you feel you are providing adequate care for SSO families? (4-point scale)
2. How often are you asked to translate for other residents? (4-point scale)
3. How often do you take care of SSO families because of your language skill? (4-point scale)
4. How many hours/week do you spend interpreting for medical personnel?

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