

Interpreter Services in Emergency Medicine

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Abstract

Emergency Department (ED) physicians are routinely confronted with problems associated with language barriers. It is important for emergency health care providers and the health system to strive for cultural competency when communicating with members of an increasingly diverse society. Solutions include professional interpretation, telephone interpretation, the use of bilingual staff members, the use of ad hoc interpreters, and more recently the use of mobile computer technology at the bedside. Each method carries a specific set of advantages and disadvantages. Although professionally-trained medical interpreters offer improved communication, better patient care, and overall cost savings, they are underutilized due to their perceived inefficiency. Ultimately, the solution will vary for every Emergency Department (ED) depending on the population served and available resources. Accessibility of the multiple interpretation options outlined above and solid support and commitment from hospital institutions are necessary to provide proper and culturally competent care for patients. Appropriate communications inclusive of interpreter services are essential for culturally competent provider/health systems and overall improved patient care.

Introduction

The Institute of Medicine defines optimal primary care as including “an understanding of the cultural...systems of patients and communities that may assist or hinder effective health care delivery.”(1) With the swelling cultural, ethnic, and racial diversity of the United States, health care providers face increased challenges in achieving what has been termed “cultural competence” in their clinical practice. Cultural competence has been described as the skillful negotiation of cultural diversity in all its manifestations, an important aspect of which is adequate communication with patients regardless of the language barrier.(2)

Language is one of the aspects of cultural competency that is becoming an imperative standard. The most recent national census in 2000 reveals that one in five

Americans speaks a language other than English at home and 8% report that they speak English less than 'very well'.(3) Unfortunately, miscommunication between patients and health care providers is a common occurrence in emergency medicine (EM) and has been identified in over 70% of malpractice depositions.(4) Although emergency physicians (EP) must be comfortable making critical decisions often based on incomplete information, the ability to communicate well with patients is nevertheless an important goal to achieve.

The service provided by interpreters is a significant component of providing culturally competent care. There is sufficient evidence to support the importance and effectiveness of interpreter services if appropriately used. It is an important adjunct to care of the emergency patient and should be available in all EDs and health systems. Effective communication can exert a positive influence on symptom resolution in addition to the emotional health of the patient. Effective use of interpreter services by EPs may improve patient outcomes in situations where language barriers exist.(5,6)

Various methods have been used to overcome language barriers in the ED including ad hoc interpreters (such as family members or local staff), telephone interpreter services, and professional interpreters. There are benefits and deficits associated with each method. There is a paucity of data formally evaluating and validating these methods, but that which does exist seems to be counterintuitive. Lack of uniform availability of interpretation options seems to be the biggest barrier to adequate translation. Perhaps it is time to discuss a standard or goal regarding this aspect of providing care. This paper will present a review of the various techniques used to overcome language barriers in the ED and a brief discussion of the advantages and drawbacks of each in an effort to determine the preeminent method.

Discussion

Prevalence of non-English-speaking patients and demographics

National statistics gathered by the US Department of Education's National Adult Literacy Survey indicate that a significant minority (21-23% or 40 to 44 million of the

191 million adults in this country) of Americans has limited English proficiency.(7) Additionally, populations of non-English-speaking patients often vary from area to area within a selected city creating a need for different language skills from one ED to another. For example, Bellevue Hospital Center in New York City cares for a large population of Spanish speakers while Cabrini Medical Center in downtown New York City cares for many more Cantonese speakers. To further complicate matters, hospitals are subject to local population shifts so that the language interpretation needs within a given ED may also change over time.

Many studies have demonstrated that language barriers decrease the quality of health care received by non-English speakers. Non-English speakers are less likely to use primary and preventive services and are therefore more likely to utilize the ED as their primary care facility vs. their English-speaking counterparts. Objective measures of medical urgency and triage scores, however, do not differ significantly between English and non-English speakers thus demonstrating an equal need for accommodation and urgent emergency medical care between the two groups. It has also been shown that language barriers decrease patients' understanding of their disease processes and therefore have a direct impact on their compliance and follow-up.(8)

Negative effects of an existing language barrier

It is common to encounter medical personnel with some working knowledge of medical Spanish who may assist in communication with Spanish-speaking patients. Although this may seem beneficial, at least one study demonstrates its limited utility. Price and Nelson, for example, studied the effectiveness of a 45-hour medical Spanish training course for EM residents. After completion of the course, subsequent physician-patient interactions by those residents were audiotaped and analyzed by professional interpreters and native speakers for errors. Despite the formal training program, the investigators found that major errors (for example, misunderstanding duration of symptoms or misuse of vocabulary) occurred in 14% of encounters with Spanish-speaking patients. Minor errors (for example, technically incorrect grammar) occurred in more than 50% of encounters. Moreover, although the course was designed to

supplement, and not replace professional interpretation services, the residents requested interpreters in only 46% of cases where a language barrier was deemed to exist representing a decrease in interpreter use compared with before the course.(9)

This overall decrease in performance may be due to a combination of overconfidence in newly-acquired language skills and an incomplete instruction program that was necessarily limited by time. These factors, coupled with the many demands on residents' time, seem to indicate that this 45-hour language instruction course is an impractical solution for caring for non-English-speaking patients.(9)

There is also evidence that suggests that when interpreters are used, either ad hoc or professional, there is still a significant risk of miscommunication.(10) One study in the pediatric emergency setting demonstrated that communication errors were common even with the utilization of interpreters. Thirteen patient encounters yielded 474 pages of transcripts. Professional hospital interpreters were present for six encounters while ad hoc interpreters, including nurses, social workers, and family members, accounted for the remaining seven encounters. Overall, 396 errors were noted, with a mean of 31 errors per encounter. The error types were classified a priori and the most common types were omission (52%), false fluency (16%), editorializing (10%), and addition (8%). Ad hoc interpreters were significantly more likely to make errors that had clinical significance than professional interpreters (73% vs. 53%).(10)

When studying the adult population, however, Baker showed that while patients were less satisfied and rated their understanding of their condition and treatment as worse in language barrier situations, the differences in understanding the diagnosis and treatment plan were not significantly different when a language barrier existed. Although the objective measures revealed little difference between patients in language barrier vs. no language barrier situations, the levels of understanding were quite poor overall.(11)

Using ad hoc interpreters vs. professional interpreters

Several studies suggest that, regardless of the resources available to EPs, one of the most common solutions to the challenge of non-English-speaking patients is the use of ad hoc interpreters.(11) In the interests of expediency, a wide variety of medical and non-medical personnel are recruited with considerable variation in their level of competence in medicine, language, and the art of interpretation. Ad hoc interpreters are commonly recruited from the friends and family of the patient or from the ED staff but can also include medical students, police officers, and other support staff.

Baker noted in a cross-sectional survey that an interpreter was used during 25% of all Spanish-speaking patient encounters in the ED. Of these encounters, ad hoc interpreters were used 66% of the time (nurses were used in 28% of these cases while family members and others present were used during the remaining 72% of cases). Doctors were used in 22% of cases while professionals were used only 12% of the time.(11) Similarly, a study conducted by Leman noted that 51% (28 of 55) of patients with limited English proficiency in an urban ED utilized family members to interpret(12) and a different study by Kazzi reported use of ad hoc interpreters 42% (55 of 131)of the time vs. 46% (47 of 131) use of trained interpreters during the 131 encounters where a language barrier existed.(13)

Professional medical interpretation, on the other hand, is a specialized skill and can be an expensive proposition for an institution. Its use, however, is proven to be more effective than ad hoc interpretation and professional translation has been demonstrated to be superior to all other means tested.(14) Even if the interpretation by non-professional interpreters is linguistically perfect, misleading information may still be transmitted due to the difficulty in obtaining a strict translation of medical problems, the tendency for over-simplification of complex cultural phenomena, and special problems dealing with translation by family members. In one study, patients who had family members interpret for them were less satisfied with the provider listening (62% vs. 85%; $p = .003$), discussion of sensitive issues (60% vs. 76%; $p = .02$), and manner (62% vs. 89%; $p =$

.005) compared to patients whose language was concordant with the provider.(14) Medical problems are often complicated to explain and frequently involve divulging very personal information. This often leads to complications such as patients leaving out important facts due to embarrassment and not wishing to share personal information when family members are translating. This is especially an issue when children are translating for parents and vice versa concerning topics that are sexually-related or taboo in their specific culture.

Kuo, on the other hand, pointed out that patients and doctors have divergent views on the utilization of family members as interpreters. Physicians and patients agree that accuracy, accessibility, and respect for confidentiality are highly important characteristics of interpreters; however, patients are more concerned than physicians about the ability of the interpreter to assist them after the physician visit. Although both patients and physicians have a high level of satisfaction with the use of professional interpreters (92.4% and 96.1%, respectively), patients were also significantly satisfied with utilizing family members and friends to interpret (85.1% vs. 60.8%, $p < .01$) because the family members and friends could continue to assist the patient at home after the physician encounter.(15)

The decision to use an ad hoc interpreter vs. a professional is often based on the perceived pros and cons thereof. Busy medical personnel may not justify the investment of time and effort to get a trained interpreter to a patient's bedside for a routine problem or procedure. In such cases, the question of what will be gained by using a professional interpreter instead of a family member, already conveniently at the bedside, rather than whether the patient requires an interpreter is assessed. However, there are also many reasons for not using an interpreter, ad hoc or professional. For some patients a qualified interpreter is simply not available due either to institutional practices or the rarity of the patient's particular language.

Bilingual/multi-lingual ED staff

Bilingual/multi-lingual physicians may be proficient in communicating in the same language as a limited English-proficient patient (LEP); however, it would be a mistake to assume language proficiency equates to cultural competency or that an LEP would not face additional barriers in obtaining medical care. Several studies indicate that patients receive similar standards of care regardless of the language spoken, as long as the physician is truly fluent. However, such situations historically have been a fortuitous coincidence rather than a common ED solution to the problem in non-English-speaking patient populations.(6,16)

Bilingual nurses are possibly the most convenient and most commonly-used ad hoc interpreters. Even with their medical training, however, there can still be pitfalls. Errors occur frequently in cross-language interpretations provided by nurses untrained in medical interpretation.(17) This leads to many non-English-speaking patients complaining of being misunderstood by their physicians. Error-containing interpretations include physicians failing to re-conceptualize the problem when contradictory information was mentioned; nurses providing information congruent with clinical expectations but incongruent with patients' comments; nurses slanting the interpretation, reflecting unfavorably on patients and undermining patients' credibility; and patients explaining the symptoms using a cultural metaphor that was not compatible with Western clinical concepts.(16)

Telephone-based interpreter systems

Telephone-based interpreter systems are an alternative to live interpreters and are widely used in the medical field.(18) Telephone interpretation is useful since telephones are potentially more available than a live interpreter and because they offer the broadest range of possible languages.

Telephone interpretation also offers the more subtle advantage of being remote vs. on-site interpretation. That is, patients are often uncomfortable with having another

person present during history-taking and physical exam. The relatively impersonal nature of a telephone-based interpreter increases patient satisfaction when discussing sensitive issues. Patients also report that they are happier with their physician's skill level, attentiveness, manner, answers to questions, and explanations when a telephone-based interpreter was used when compared to a family member or ad hoc interpreter.(18)

Despite these advantages, it seems that the special milieu of the ED continues to limit the use of this system. The first hurdle is the absence of bedside phones in the ED. Institutions are faced with providing bedside access to telephones and such concerns dilute one of the main advantages of telephone-based interpreters, namely their ease of introduction. Another factor to consider is that a specialized phone is needed or the speakerphone of a normal phone may be used; however, this tends to result in raised voices, poor audio quality, and a certain lack of privacy. Another limit is that while using a phone during the initial history or during discharge is relatively straightforward, having a patient speak into a phone between each component of a neurological exam, for example, is rather cumbersome. The interpreter is also unable to see the patient's facial expressions and body language, which may further hinder the patient's ability to convey his or her history and concerns.(18)

While telephone services can be a useful adjunct, it can rarely function as the primary or sole interpretation resource for an ED. In common practice at present, telephone-based interpretation appears to be limited to interpreting for unusual language speakers, dependent upon the setting.(18) The diversity of the local population will likely determine whether an ED treats enough uncommon language speakers capable of using a telephone interpretation service to provide justification for providing phone access in the ED and contracting an interpretation service which can also be very costly. Regardless, it is clear that phone services cannot completely supplant live interpreters.

Interpretation for the hearing-impaired

The hearing-impaired patient deserves special mention when discussing the use of interpreters in a medical setting. There are over 30 million people in the United States

who are classified as hearing-impaired. Of those, approximately 2.5 million are considered deaf. Although recent legal decisions and awareness efforts have somewhat ameliorated the situation, the fact remains that hearing-impaired patients are often given substandard care, in part due to widely-held misconceptions about the hearing-impaired and sign language.(19)

Perhaps the most important consideration is that the terms “hearing-impaired” and “deaf” encompass a wide range of functional impairment, and that patients have varying degrees of comfort with spoken language, lip-reading, sign-language, and using writing to communicate. A physician therefore cannot assume that because a patient has some lip-reading ability, that they would not prefer an American Sign Language (ASL) interpreter or that the patient’s skills are sufficient for use in a medical setting.(19)

ASL is a linguistically complete, natural language. It is unrelated to spoken English and has completely different rules governing its morphology and syntax. Although the most recent census did not include figures for the use of ASL, by most estimates, it is the third or fourth most common language in the US. State-certified interpreters are available in every state, and the Americans with Disabilities Act (ADA) mandates their usage when needed.(19)

The difficulty of interpretation in this unique type of patient encounter lies, perhaps, in the temptation to use ad hoc solutions. The most common solution is communication by writing. While some deaf patients prefer this modality, many others find it cumbersome. It is also important to realize that many deaf patients are pre-lingually deaf, and thus have poor reading comprehension. Finally, as noted above, ASL and English bear no relation to one another. Therefore, writing in English to an ASL speaker is probably slightly less effective than writing English notes to a Spanish speaker.(19)

Another tempting solution is lip-reading. It must be understood that lip-reading is a skill, and while some patients have excellent comprehension, many others manage only

partial recognition with normal conversation. The unusual language of medicine combined with the fast pace at which medicine is practiced in emergency situations often makes comprehension quite challenging for hearing-impaired patients. Not surprisingly, surveys of the deaf reveal an overwhelming preference for a signing interpreter.(18,20)

Ultimately, the hearing-impaired, deaf, or ASL-utilizing patient is no different from any other language barrier patient. As long as the medical staff is willing to inquire about the patient's preferred method of communication, the same considerations must be applied to deaf patients as to foreign language-speaking patients. In these cases, the use of ASL interpreters is clearly the superior solution to the communication barrier.(19) However, a study surveying physicians showed that while 63% of physicians knew that signing should be the initial method of communication, only 22% actually used an ASL interpreter in their common practice.(18) While the need for ASL interpreters might seem obvious, a growing body of successful litigation involving the hearing-impaired and failure by medical personnel to address their needs indicates that perhaps the guidelines need to be more widely adopted.

Patient follow-up and compliance

Most ED patients require additional care and follow-up visits for their medical problems. There is a perception that non-English proficient patients are not only more likely to use the ED as a primary care facility, but that they are also less likely to comply with discharge instructions and follow-up in a timely manner.(2) Presumably, failed referrals result in either repeat ED visits or loss of continuity. In one prospective, nonrandomized, descriptive analysis of ED patients referred to an established urban hospital follow-up network, the general follow-up rate for ED referrals was found to be approximately 28% for all patients.(5) When non-English proficient patients were separately assessed for likelihood of follow-up, no significant differences were found.(5)

However, Sarver did find that a language barrier resulted in a lower likelihood of receiving a referral in the first place possibly due to the fact that it is often easier to communicate an appointment time (for example, re-check in one month for standard

follow-up) than it is to elicit a history sufficient to elucidate the need for further referral (for example, getting enough details while taking a history to have a patient follow-up in two weeks due to acute onset and nature of symptoms).(21,22)

Financial impact of interpreter usage

Interpreters have several significant cost-lowering effects per visit. One study showed that non-English-speaking patients without the use of an interpreter had a higher incidence and cost for testing, were more likely to be admitted, and were more likely to receive intravenous hydration. Decision-making was more cautious and also more expensive when non-English-speaking cases were treated in the absence of a professional interpreter.(6)

Emerging Technology

Currently, there are alternative technological options emerging that merit mention. Various software systems, for example, are rising that may strongly complement many of the interpretation solutions currently in practice. Mobile computerized technology is becoming available that affords point-of-care service and therefore makes service convenient and confidential for both patients and caregivers.(23) It allows for an immediate response in an ED and may be incorporated as early as during triage. It allows for assessment of immediacy and may serve to eliminate frequent delays in care from waiting for an appropriate, live interpreter.

Using mobile computerized technology, the clinician selects the appropriate language and the patient is then automatically queried about his or her chief complaint. The patient answers via touching the appropriate response on the screen. This allows the clinician to communicate directly with non-English-speaking patients, as well as hard-of-hearing and deaf patients. This technology may also be useful for patients who cannot read or write through the use of a prerecorded voice communicating the words on the screen directly to the patient in their given language. Although this development seems very promising, the technology still requires more study and validation in the ED.

Summary

Interpreter services in emergency medicine will vary among EDs according to the prevalence of non-English-speaking patients and the different languages prevalent in the local patient population served. Solutions include utilization of professional interpreters, telephone interpretation services, bilingual/multilingual staff and other ad hoc interpreter services; all with their own advantages and disadvantages. Health care providers in emergency medicine must be aware of the options for medical interpretation and the advantages and disadvantages of each method. Supporting data demonstrate that the utilization of professional medical translators is the superior and safest choice. Professional medical translation should be the standard service recognized, accepted, and implemented in all medical facilities.

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