

As the proportion of racial, ethnic, and cultural minorities in the United States continues to expand, pediatric emergency medicine providers are increasingly likely to encounter cultural and language barriers in practice. This paper reviews a conceptual framework encompassing the decision to seek emergency care, the process of providing such care, and the adherence to treatment plans and follow-up. The ways in which cultural and language barriers can negatively impact each element of this model are discussed in detail. Specific examples include provider ignorance of dangerous folk beliefs, communication barriers secondary to inappropriate interpreter use, and discriminatory assumptions regarding child abuse, pain management, and sexual activity. The practitioner is then provided with concrete recommendations to reduce these negative effects.
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Why Culture and Language Matter: The Clinical Consequences of Providing Culturally and Linguistically Appropriate Services to Children in the Emergency Department

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RACIAL/ETHNIC MINORITIES ARE THE fastest growing groups in the United States, comprising about 30% of the population and 83 million people.¹ One out of every three US children (≤ 18 years old) is non-white, and it is estimated that by the year 2025, almost 40% of Americans and about half of all US children will be non-white.^{1,2} There are already more non-whites than whites in the nation's most populous state, with 52% of California's population comprised of minorities.² Immigration patterns in recent years suggest that the US population will continue to become more diverse. In the year 2002 alone, more than 1 million immigrants were granted legal permanent residence in the United States.³ Forty-one percent of all US immigrants in 2002 came from five countries: Mexico (21%), India (7%), China (6%), the Philippines (5%), and Vietnam (3%). This rapid growth in diversity makes it increasingly likely that

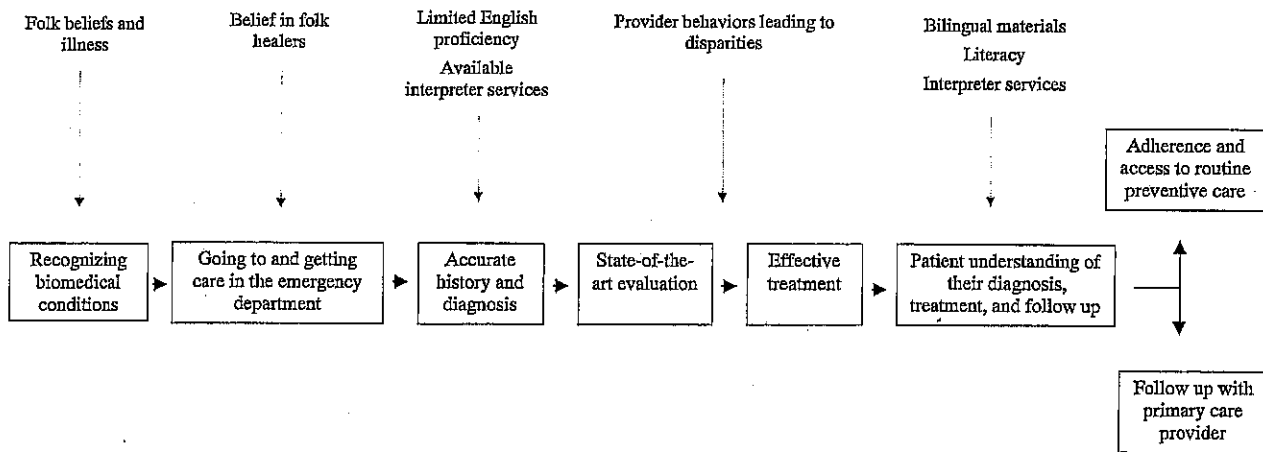


Figure 1. Cultural and linguistic influence on the processes of pediatric emergency care.

pediatric emergency care clinicians will encounter greater numbers of patients from different cultures and language groups.

The surge in diversity of our nation has led to a greater recognition of the importance of providing culturally-competent and linguistically appropriate health care. A growing literature reveals the wide-ranging impact of culture and language on clinical care, including health care processes and outcomes, quality of care, and patient satisfaction. A recent review, for example, demonstrated that failure to consider a patient's cultural and linguistic issues can result in a variety of adverse consequences, including miscommunication, poor continuity of care, less preventive screening, difficulties with informed consent, inadequate analgesia, decreased access to care, use of harmful remedies, delayed immunizations, and fewer prescriptions.⁴

The purpose of this article is to:

- Present a conceptual model for providing high quality emergency care to children from any cultural or linguistic group;
- Highlight the most important clinical consequences of culture and language in pediatric emergency medicine;
- Provide practical tips for providing culturally-competent and linguistically appropriate care in the pediatric emergency department (ED).

Conceptual Model

Figure 1 summarizes how culture and language affect children's access to and use of emergency services. The process of emergency care begins with recognition of a biomedical illness, and usually ends with follow-up by a patient's primary care

provider. In the 1960s, Anderson et al⁵ suggested that people's use of health services is a function of their predisposition to use services, factors that enable or impede use, and their need for care. This model was later revised to include health behavior and its influence on health status and outcomes.⁶ Cultural and linguistic issues contribute to a patient's predisposition to access emergency care, influence the care ultimately received, and affect a patient's understanding of their diagnosis, treatment, and follow-up plans. In the following sections, we examine each component of the conceptual model of how culture and language affect pediatric emergency care, with a focus on clinical consequences.

Issues Before Presentation to the Emergency Department

Parent Recognition of Biomedical Conditions

Several folk illnesses can overlap with the signs and symptoms of biomedical conditions. For example, in Latino culture, there are several childhood folk illnesses that are believed to cause fever and other symptoms of biomedical illnesses. These include *mal de ojo*, *mollera caida*, and *empacho*.⁴ *Mal de ojo* occurs when a person with "strong eyes" intentionally or unintentionally looks at a child. The illness is believed to occur because an individual who secretly covets him or her has placed a spell on the child. *Mollera caida*, or fallen fontanelle, is believed to occur when the breast or bottle is removed too rapidly from an infant's mouth or when the infant is bounced or tossed around. The

symptoms of *mal de ojo* (fever, inconsolable crying, diarrhea, and vomiting) and *mollera caida* (fever and difficulty feeding and swallowing), overlap with serious biomedical conditions, including bacteremia, dehydration, and gastroenteritis.⁴ Similarly, symptoms of *empacho* include vomiting, stomach pain, headache, abdominal distention, loss of appetite, diarrhea, fever, and crying, and result from something (usually food or saliva) getting "stuck" inside the stomach caused by dietary indiscretions, or eating too much or at the wrong time.⁷ A comprehensive review of folk illnesses and their overlap with biomedical illnesses is provided elsewhere.⁸ Knowing the symptoms of common folk illnesses and how they overlap with biomedical conditions can aid the pediatric emergency care clinician in obtaining accurate medical histories and in formulating a differential diagnosis.

Parent Beliefs and Practices

Certain parental beliefs and practices can delay or complicate the emergency care of children. For example, among Mexican-American mothers in San Diego, only 35% primarily used thermometers to determine whether their child had a fever; the other two-thirds primarily or exclusively used touch or visual observation.⁹ Mothers who did not regularly use thermometers for fever assessment were significantly less likely to take their febrile child to see a physician, but significantly more likely to have had their child hospitalized.⁹ Use of a thermometer is the only accurate way to determine whether a child is febrile. All other methods, including tactile and visual assessment, are inaccurate and cannot predict serious illness. Without a thermometer, parents may underestimate their child's temperature and be unable to determine whether their child has a fever. This may lead to an inability to perceive the need for medical evaluation and may delay appropriate assessment and treatment. Interventions to ensure universal thermometer ownership and use may include assuring competency in thermometer use during patients' ED visit.

In a study of fever beliefs and practices among a multiethnic and socioeconomically diverse sample of parents, culture was found to influence parental beliefs and practices concerning fever.¹⁰ Foreign-born and Latino parents in the study were more likely to believe that folk illnesses cause fever and use remedies other than antipyretics, such as Vaporub (Proctor and Gamble Co, Cincinnati, OH) and rubbing alcohol, to treat a fever.

Clinicians should consider inquiring about folk illness beliefs and practices concerning fever, emphasize proper fever management and thermometer use to diverse populations during acute care visits for febrile illnesses and other relevant conditions, and ensure the availability of such information in all languages commonly spoken by families in surrounding communities.

Belief in Folk Healers and Use of Potentially Harmful Remedies

In cases where parents believe that their child's condition is caused by a folk illness, the first provider contact may not be a biomedical health care provider, causing delay in medical evaluation. Concurrent use of folk healers and physicians is not uncommon,^{7,11,12} and can cause tension for parents about whether to give their children folk remedies or prescription medications.¹³ Folk healers often are the first and preferred choice for pediatric care when children are believed to have folk illnesses.⁷ Parents are frequently dissatisfied with physicians' treatment of folk illnesses, and sometimes believe that biomedical treatment of these conditions is ineffective.^{14,15}

In addition, some folk remedies and treatments may be harmful. For example, multiple cases of lead toxicity and death have been documented among children whose *empacho* was treated with powdered folk remedies containing high concentrations of lead oxide.^{16,17} These findings indicate that clinicians should ask parents about folk illness beliefs and practices. When harmful folk remedies are encountered, the clinician should explain the potential harm, suggest culturally-acceptable harmless alternatives (such as herbal teas), and determine ways that parents can administer both biomedical and ethnomedical therapies.^{7,18}

Issues in the Emergency Department

Accurate History and Diagnosis

Multiple studies demonstrate the wide range of adverse consequences that limited English proficiency (LEP) can have on health and use of health services in the pediatric ED, including impaired health status,^{19,20} a lower likelihood of having a usual source of medical care,¹⁹⁻²¹ non-adherence to medications,²² a greater likelihood of a diagnosis of more severe psychopathology and leaving the hospital against medical advice among psychiatric patients,²³ a lower likelihood of being given a

follow-up appointment after an ED visit,²⁴ an increased risk of intubations among children with asthma,²⁵ a greater risk of hospital admissions among adults,²⁶ an increased risk of drug complications,²⁷ longer medical visits,^{28,29} higher resource utilization for diagnostic testing,²⁹ lower patient satisfaction,^{20,30,31} and impaired patient understanding of diagnoses, medications, and follow-up.^{32,33}

A recent study by Hampers et al²⁹ in a pediatric ED found that LEP patients with no interpreter and those with untrained, ad hoc interpreters were significantly more likely than English proficient patients to have medical tests done, higher test costs, be hospitalized, and to receive intravenous hydration. In contrast, numerous studies document the positive impact that both trained, professional interpreters and bilingual providers have on LEP patients' quality of care. LEP patients who have trained, professional interpreters make more outpatient visits,³⁴ receive and fill more prescriptions,³⁴ do not differ from English proficient patients in test costs or receipt of intravenous hydration,³⁵ are less likely than English proficient patients to have laboratory tests done,³⁵ have outcomes among those with diabetes that are superior or equivalent to English proficient patients,³⁶ and have high satisfaction with care.^{37,38} LEP patients who have bilingual providers ask more questions,³⁹ have better overall information recall,³⁹ are more comfortable discussing sensitive or embarrassing issues,³⁷ have less pain and better physical functioning, psychological well-being, and health perceptions among those with hypertension or diabetes,⁴⁰ and have high patient satisfaction.³⁸

Trained medical interpreters should always be used for LEP patients and their families. A recent study of pediatric encounters in a hospital clinic found that errors in medical interpretation are common and that those committed by ad hoc interpreters (including nurses, social workers, and siblings) are significantly more likely to have potential clinical consequences than those committed by hospital interpreters.⁴¹ This study also indicated that interpreter errors are probably a previously unrecognized possible root cause of medical errors. In this study, several documented common mechanisms for medical errors were observed among the interpreter errors of clinical consequence, including being told to use the wrong dose, frequency, duration or mode of administration of drugs and other therapeutic interventions, and omitting relevant clinical information on drug allergies and the past medical history. These findings suggest that for LEP patients, providing qualified, trained medical

interpreters may be an important means of reducing medical errors and improving the quality of medical care.

State-of-the-Art Evaluation and Effective Treatment

Several folk treatments administered at home for common childhood symptoms can result in clinical findings that can be confused with child abuse, including cupping, used by Latino families to treat pain, fever, poor appetite, and congestion,⁴² and coin rubbing, used by Asian families to treat several illnesses including seizures, headaches, and myalgias.⁴³ Failure to recognize the clinical presentation of these treatments can result in child abuse evaluations and involvement of child protective services that are unnecessary, costly, and emotionally traumatic to families.

Two other parent/patient beliefs and practices illustrate how cultural misunderstanding can lead to costly and unnecessary evaluations. Parents from certain Middle Eastern countries may give their infants fenugreek teas to reduce flatulence and prevent fevers.⁴⁴ Because fenugreek seeds impart a "maple-syrup" aroma to the urine, the uninformed clinician may perform expensive and superfluous emergency evaluations to rule-out maple syrup urine disease, as has been reported.⁴⁴ A recent study revealed that infant head molding, the application of pressure or bindings to cranial bones to alter their shapes, is practiced by various Caribbean, Latino, European, African-American, Asian, and Native American groups to promote the infant's beauty, health, or intelligence.⁴⁵ Clinicians need to inquire about infant head molding, because failure to do so could lead to unnecessary evaluations for dysmorphism or craniosynostosis, and none of the 30 parents in this study told their child's physician about this practice.⁴⁵

Several studies document biased attitudes among some health care providers that can affect the quality of emergency care for children. For adolescent girls presenting to the ED with abdominal pain, ethnicity is a significant determinant, along with age and socioeconomic status, of whether physicians obtain sexual histories.⁴⁶ Multivariate analysis revealed that physicians significantly more often obtained sexual histories on African-American and Hispanic girls (88%) compared with whites (50%). For girls ≤ 15 years old, 100% of minority but only 44% of white girls were asked about sexual activity. In a study of white psychotherapists in which two case histories were presented that were identical except for the race of

the adolescent boy (white vs black), the therapists gave significantly lower ratings for the black adolescent for the clinical significance of 8 of 21 pathological behaviors.⁴⁷ White therapists, thus, were less distressed about a black adolescent beating his girlfriend, stealing cars, mistrusting the interviewer, and hating his mother, supporting the investigator's hypothesis that mental disorders in black adolescents are under-diagnosed because their pathological behaviors are rated less severely.

Dramatic ethnic and racial disparities among children have been documented for prescription medications, the use of analgesia, and diagnostic evaluation. Data from the National Medical Expenditure Survey reveal that among children 6-17 years old who made outpatient visits, only 52% of African-American and 53% of Latino children received prescriptions, significantly less than the 66% of white children.⁴⁸ These differences persisted after adjustment for relevant covariates (poverty, health, and the number of physician visits made). Several studies in the United States reveal ethnic disparities in asthma medication prescribing practices.^{49,50} Among children with asthma in the Michigan Medicaid system, African-Americans received medical care more frequently but asthma medications less frequently than white children.⁴⁹ Among preschool children hospitalized for asthma at a major US children's hospital, Latinos were 17 times less likely than whites or African-Americans to be prescribed a nebulizer for home use at discharge, after adjustment for relevant covariates.⁵⁰

Among adolescent and adult patients treated for long-bone fractures in a California ED, a significantly greater proportion of Latinos (55%) than whites (26%) received no analgesia, and whites were significantly more likely than Latinos to get oral, narcotic, and non-narcotic analgesia.⁵¹ After adjustment for relevant covariates (including injury type, language, and insurance status), Latinos had 7 times the odds of receiving no analgesia, compared with whites. In a study of children and adults hospitalized for open reduction and internal fixation of limb fractures, researchers found that whites received significantly higher doses of narcotic analgesics (22 mg/day of morphine equivalents) than blacks (16 mg/day) and Latinos (13 mg/day), differences that persisted in separate analyses for oral or parenteral route and after adjustment for relevant covariates (such as insurance status and number of diagnoses).⁵²

Among children with gastroenteritis evaluated in the ED of a major children's hospital, Latinos were significantly less likely than white and African-American patients to have diagnostic laboratory

tests and X-rays.⁵³ After adjustment for age and disease characteristics, white children had twice the odds of having > 2 diagnostic tests sent and triple the odds of having X-rays done, compared with Latinos. Finally, a recent study found racial differences in the evaluation and reporting of pediatric fractures for child abuse in a retrospective chart review of 388 children younger than 3 years hospitalized for an acute primary skull or long-bone fracture.⁵⁴ Reports of suspected abuse were filed for 22.5% of white and 52.9% of minority children ($P < .001$). Minority children aged at least 12 months to 3 years (toddlers) had 8.75 times the odds of having a skeletal survey performed compared with their white counterparts, even after controlling for insurance status, independent expert determination of likelihood of abuse, and appropriateness of performing a skeletal survey. This group of children was also more likely to be reported to child protective services compared with white toddlers, even after controlling for insurance status and likelihood of abuse.

Understanding a Child's Diagnosis, Treatment, and Follow-up

Language problems and low literacy can adversely affect a patient's understanding of their diagnosis and adherence to therapy and follow up.^{4,55} Trained medical interpreters should be used to review discharge and follow-up instructions with LEP families. In addition, EDs should ensure the availability of written discharge information in all languages commonly spoken by families in surrounding communities and written at the average population reading level.

Summary

This review highlights how culture and language can be clinically important in the emergency care of children. By providing culturally and linguistically appropriate services to children in the ED, clinicians can improve patient-provider communication regarding folk beliefs and practices, diagnostic evaluations, treatment plans, and follow-up. Enhancing communication through the use of trained interpreters can also improve the quality of emergency care for LEP parents and children and may reduce racial and ethnic disparities in health and use of services. The conceptual model presented in this article can be used to assist pediatric emergency care clinicians in providing culturally-competent care and provide a framework for understanding unique cultural and linguistic attributes of each patient, regardless of the patient's ethnicity.

TABLE I. An Approach to Providing Culturally-Sensitive Emergency Care*

Methods of Providing Culturally-Sensitive Care	Mechanisms for Accomplishing Task
1. Be aware of folk illness beliefs in a patient's cultural group	<ul style="list-style-type: none"> ● Sensitively ask patients and staff members from diverse ethnic communities about folk illness beliefs and practices ● Consult available published literature
2. Assess likelihood that a patient will act on specific folk illness beliefs during illness episode	<ul style="list-style-type: none"> ● Non-judgmentally inquire about folk beliefs ● Inquire by explaining that you are aware that a given folk illness exists that doctors may not know about; ask whether the patient has heard of it, and if so, whether their child has it now, what the symptoms are, how one treats it, and who treats it
3. Negotiate between biomedicine and folk medicine	<ul style="list-style-type: none"> ● Suggest replacing harmful ethnomedical remedies with culturally-acceptable alternatives ● Integrate harmless ethnomedical remedies into biomedical treatment plan

* Adapted from Pachter⁶¹ and Flores.⁴

Clinicians' sensitively asking about and responding to folk illnesses may improve a patient's satisfaction with care and adherence to therapy. Because patients sometimes practice parallel utilization of biomedical and folk therapies, it is also important for clinicians to be aware of folk beliefs, healers, and remedies, and the frequency of their use for particular illnesses. Table I describes a simple, practical, culturally-sensitive approach that the pediatric emergency clinician can use to inquire about folk illnesses, determine whether any harmful ethnomedical remedies are being used, suggest replacing harmful ethnomedical remedies with culturally-acceptable alternatives, and integrate harmless remedies into the biomedical treatment plan.

According to the 2000 census, approximately 47 million people in the United States speak a language other than English at home, and 21 million are limited in English proficiency.⁵⁶ It is thus increasingly likely that pediatric emergency clinicians will care for LEP patients and their families. Given the long list of potential adverse clinical consequences that face LEP patients and their families when they lack adequate interpreter services, clinicians should work closely with their institutions and communities to ensure that trained interpreter services, linguistically-appropriate signage, and multilingual prescription labels and handouts are available in their institutions for all LEP patients. Although several federal and state initiatives mandate access to adequate interpreter services for all LEP patients⁵⁷ and prohibit discrimination against

LEP persons,⁵⁸ few states in the United States currently provide third-party reimbursement for interpreter services. Massachusetts recently passed the Emergency Room Interpreter Services Bill that requires every acute care hospital to provide "interpreter services in connection with all emergency room services to every non-English speaker who is a patient or who seeks appropriate emergency care or treatment."⁵⁹ A crucial area for pediatric emergency care policy is for pediatric emergency clinicians to advocate for similar initiatives in their own states, including third-party payer reimbursement for interpreter services by Medicaid, managed care, and private insurance. Indeed, states who elect to adopt language assistance as a covered health care service under their state plan can receive a greater than 50% cost match-based on its Federal Medical Assistance Percentage.

Finally, emergency clinicians should also be familiar with how to work with trained interpreters to overcome patients' language problems. Selected guidelines for the effective use of interpreters are summarized in Table 2. In addition, to ensure high-quality care for LEP patients, EDs should consider providing multilingual patient educational handouts, consent forms, and instructions, and should work with their institutional pharmacies to ensure that prescription labels and instructions are available in the principal languages spoken by patients and their families. Other effective measures to provide culturally and linguistically appropriate care to patients include educating medical students about

TABLE 2. Guidelines for the Use of Medical Interpreters in the Pediatric Emergency Department*

Interpreter Choice
<ul style="list-style-type: none"> ● Always use trained interpreters unless you are thoroughly fluent in patient's language ● Avoid using untrained staff, bilingual strangers, children, or adult relatives as interpreters because of potential problems with accuracy, confidentiality, disrupted social roles, and medical terminology
Interpreter Use
<ul style="list-style-type: none"> ● Speak to and maintain eye contact with patient/parent, not interpreter ● Ask interpreter to translate as literally as possible ● Emphasize key instructions and explanations by repetition ● Have patient/parent repeat information through back translation to verify quality and comprehension
At the End of Medical Visit
<ul style="list-style-type: none"> ● Ask interpreter to write a list of instructions for the patient/parent ● Indicate to pharmacists that prescription instructions should be printed in the patient/parent's language ● Ask interpreter to accompany patient/parent to schedule follow up appointments with receptionist

*Information from Flores et al.⁴

cultural and linguistic issues in pre-clinical years and residents and fellows during residency training through case-based teaching sessions.⁶⁰

In conclusion, multiple studies document that providing culturally competent, linguistically appropriate care in the pediatric emergency department results in enhanced patient satisfaction, lower costs, optimal health processes, outcomes and use of resources, and a superior quality of medical care.

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