

IMPACT OF LANGUAGE BARRIER ON ACUTE CARE MEDICAL PROFESSIONALS IS DEPENDENT UPON ROLE

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Communication with patients is essential to providing quality medical care. The study was conducted to evaluate the effects of language barriers on health care professionals. It is hypothesized that these language barriers are commonly perceived by health care professionals and they are a source of workplace stress in acute care environments. We designed and distributed a survey tool of staff experiences and attitudes regarding the English-Spanish language barrier among patients in an acute care surgical environment of a tertiary medical center. Responses were anonymous, stratified by professional role and comparisons made using paired *t* tests. Sixty-one nurses and 36 physicians responded to the survey. Overall, 95% of nurses reported that the language barrier was an impediment to quality care, whereas 88% of physicians responded similarly ($P = .0004$). More nurses than physicians report experiencing stress (97% vs. 78%) and the degree of stress appears to be greater for nurses ($P < .0001$). The basis of stress was unique between the two groups. This study demonstrates that acute care hospital medical professionals perceive language barriers as an impediment to quality care delivery and as a source of workplace stress. Nurse and physician perceptions differ; therefore, strategies to address these language barriers should be specific to those professional roles. These barriers create a void in health care quality and safety that has effects on health care professionals. (Index words: Communication; Barrier; Spanish; Stress; Quality) *J Prof Nurs* 22:355–8, 2006. © 2006 Elsevier Inc. All rights reserved.

A MAJOR COMMUNICATION barrier exists in U.S. health care today, and current methods of addressing the problem are incomplete. Although as many as 11% of patients seeking medical care in the United States primarily speak Spanish, the health care system is largely geared to English speakers (Timmins, 2002). Thus, a language barrier is inevitable. We can expect this barrier to become more widespread as immigration of non-English-speaking patients continues and cultural diversity increases, first in large and then in small

communities and hospitals. Because communication in health care is essential, this barrier adversely affects patient care. Robledo, Wilson, and Gray (1999) reported that Hispanic mothers faced language barriers that affected treatment of respiratory illnesses in children. Non-English speakers are also more likely to report problems with care, communication, and diagnostic tests than are English-speaking patients (Carrasquillo, Orav, Brennan, & Burstin, 1999).

Language barriers not only affect health care quality but also increase cost (Koff & McGowan, 1999). Increased emergency department visit durations and increased resource utilization have been reported (Hampers, Cha, Gutglass, Binns, & Krug, 1999), including a threefold increase in the use of abdominopelvic computed tomography scanning in non-English-speaking patients in the evaluation of abdominal pain in the emergency department (Waxman & Levitt, 2000).

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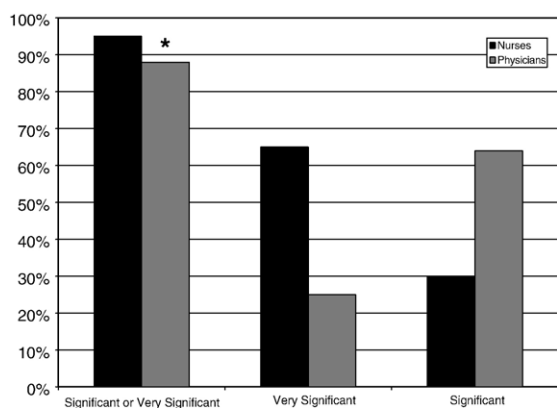


Figure 1. Perception of language barrier as an impediment to delivery of quality of care. Acute care nurses ($n = 61$) and physicians ($n = 36$) were asked to rate the significance of the language barrier. Most respondents indicated the language barrier as significant or very significant. Nurses were more likely to consider it so ($*P = .0004$ compared to nurses).

What has not yet been determined is the effect of this language barrier on health care professionals. Nurses and physicians must be effective communicators. Communication is necessary not only to gain information but also to convey it, both information of an objective nature and for the purpose of comforting. The language barrier itself removes from staff their ability to perform basic communication, akin to tying their hands, and may create significant stress. Frequency, manner, and health care professional perceptions of language barriers in acute care are unknown. We hypothesize that language barriers occur frequently in the acute care environment and that these barriers create workplace stress.

Methods

The University of Kentucky (UK) Hospital is a 473-bed tertiary referral medical center serving central, eastern, and southern Kentucky with a referral population base of 1.4 million. The medical center includes an American College of Surgeons (ACS)-verified Level I trauma center and there are 56 adult critical care beds. Approximately 13% of the central Kentucky population is estimated to be Hispanic, surpassing African Americans as the largest minority, and the UK Medical Center serves a growing, non-English-speaking Hispanic population. Nearly 1,000 admissions to our center last year (4.6%) were Hispanic. The increasing number of non-English-speaking patients being admitted prompted the researchers to examine the effects on health care providers. A single survey tool was designed and distributed to both acute care nurses from the critical care and ward areas and to surgical physician staff. Surveys were then completed and returned anonymously. Results were tabulated and analyzed using paired t tests on SAS software. Respondents were asked to list the sources of their perceived stress. If multiple sources were listed, the first was

included in the data analysis. Responses from those who listed no stress were eliminated.

Results

Invited to participate were 56 nurses, 7 nursing assistants, and 36 physicians. Nurses and nursing assistants were grouped together and this group will hereafter be termed "nurses." Response rates were 97% for nurses and 100% for physicians. Of those responding, 90% of nurses and 86% of physicians reported caring for patients in their practice who primarily speak Spanish. Acute care ward nurses comprised 21% of those responding and 79% work primarily in critical care. Of responding physicians, 98% were surgeons or surgical house staff, whereas 2% (1 physician) were emergency medicine residents.

Nurses and physicians were similar in their underlying command of the Spanish language with 44% of professionals in both groups reporting knowing more than 10 words in Spanish. Only 5% of nurses and 3% of physicians reported having attended a formal medical Spanish course in the past.

Nurses and physicians were different, however, in the extent to which they perceived the language barrier as an impediment to delivery of quality of care (Figure 1). Surveys show 95% of nurses but only 88% of physicians perceived the language barrier as either significant or very significant ($P = .0004$). Furthermore, 65% of nurses and only 25% of physicians considered the barrier to be a very significant impediment to quality of care, whereas 30% of nurses and 64% of physicians considered the barrier as only significant.

More discrepancy between nurses and physicians was identified when respondents were asked about stress levels with regard to the language barrier (Figure 2). Although the majority of respondents in both groups of professionals reported some stress related to the language barrier, nurses were significantly more likely

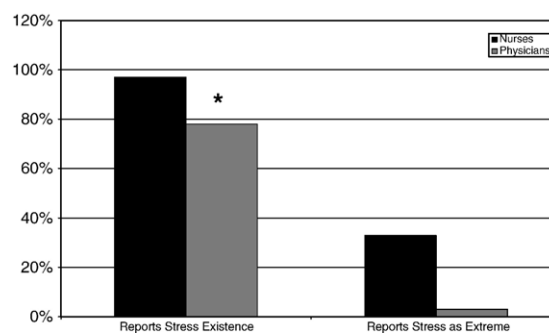


Figure 2. Stress related to the language barrier. Acute care nurses ($n = 61$) and physicians ($n = 36$) were asked to rate their stress related to caring for patients with whom there existed a language barrier. Most respondents indicated some stress related to the language barrier but nurses reported this more often than physicians ($*P < .0001$ compared to nurses). Nurses were also 11-fold more likely to report the stress as extreme.

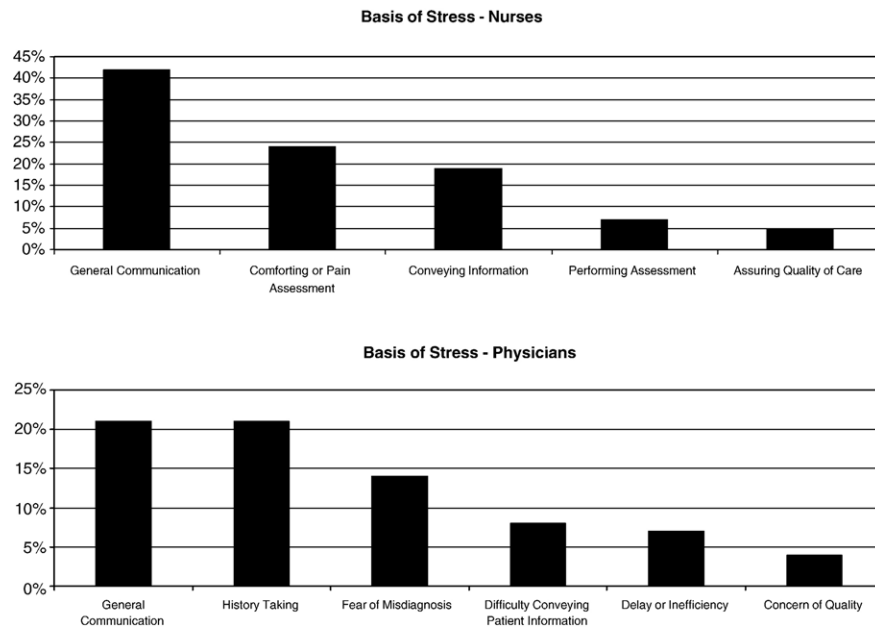


Figure 3. Basis of stress related to the language barrier. Nurses and physicians were different in the reported basis of stress. Origins of stress are shown with percentage of the total respondents providing that answer. If multiple sources were given, only the first response was tabulated here.

to report stress than physicians (97% vs. 78%, $P < .0001$). Furthermore, nurses were 11-fold more likely to report this stress as extreme (4 on a scale of 4) than were physicians (33% vs. 3%).

Bases of stress for nurses and physicians are shown in Figure 3. Nurses reported difficulty with general communication (42%), comforting or pain assessment (24%), conveying of information (19%), performing nursing assessment (7%), and assuring quality of care (5%) as bases of stress. Physicians were more likely to leave this question blank (25% vs. 0% for nurses). Those physicians who responded reported difficulty with general communication (21%) and history taking (21%) followed by fear of misdiagnosis (14%), difficulty conveying patient information (8%), delay or inefficiency (7%), and concern about quality (4%) as the basis of stress.

Discussion

English–Spanish language barriers commonly occur in health care environments. This study is the first to specifically examine the practice of acute care adult nurses and surgeons. Our data show that the majority of both physicians and nurses report encountering patients who speak Spanish as their primary language. Many strategies are available to cross these language barriers, including printed and computerized translators, foreign language courses, and direct interpreter services by persons either physically present or available by telephone (Dye, 2001; Mazor, Hampers, Chande, & Krug, 2002). Although these strategies may be effective in some ways, our data indicate that an impediment to quality care remains as attested by at least 88% of respondents to this survey stating they feel the language barrier impedes care.

Existing strategies to address the language barriers in acute care may be too cumbersome to use routinely, may not be available when immediately needed, and may not be effective in acute care environments such as critical care, operating room, and surgical wards. An ideal translation device or service should be readily available at all hours, immediately accessible, portable to all environments including the bedside/critical care areas/operating room, easy to use, and tailored to the specific needs of the user. Alas, this ideal translation tool does not exist. As one survey respondent indicated, “Have you ever tried to give a suppository to a non-English-speaking patient in the middle of the night?”

These data indicate that language barriers are a source of health care professional stress. Nursing staff are far more likely to report stress, and the level of stress that they report is 11-fold greater than that reported by physicians. The reasons for this are unclear from the data, but suggest simply that the inevitably longer periods of contact with the patients, more intimate contact with regard to communicating basic needs, and more opportunities and necessities for communication accentuate the effects of language barriers on nurses. Nurses also frequently report that inability to communicate with families is also a stressor.

In addition to degree of stress, types of stressors also differ between health care roles. Nurses experience stress more frequently with regard to comforting and pain assessment, conveying information, and assuring accurate nursing assessment. Physicians were less likely to elaborate on the source of their stress. Those who did specify an origin for their stress were most concerned about obtaining an accurate history, making accurate diagnoses, and conveying treatment plans.

These differences show that translation tools must be designed and implemented in a manner that meets the unique needs of the user. Nurses may benefit from picture boards and other visual tools to assess pain. Physicians, on the other hand, will be more likely to require an interpreter to help with the collection of a detailed history. There are insufficient data here to determine whether professionals who have completed a medical Spanish course have less stress or report different needs. The medical Spanish courses may lack in usefulness because they focus on specific terms for medical jargon, when patients tend to talk in dialect specific to their region and use slang terminology instead of medical terminology. It is sometimes difficult to discuss issues with patients and their families who speak your primary language when level of understanding and dialect are considered, even more so when the discussion is with a person of another language. It is clear from the data, however, that physicians and nurses fluent in Spanish were less likely to report stress. The number of health care workers fluent in Spanish at the hospital where the study took place is small and therefore had little effect on the data.

A final issue not examined here—that of the effect of language barriers on health care quality—is one that is critically important and remains yet to be fully examined in clinical research. Concerns about quality were expressed by health care professionals in this study. Two nursing assistants on the wards indicated stress specifically related to assuring quality of care in this unique population. One nurse indicated that an incomplete nursing assessment was “hazardous.” Interpreter services can be provided through hospital staff, by contractors, or by telephone. Duffy and Alexander (1990) stressed the cost-effectiveness of this approach in avoiding adverse events related to miscommunication. The quality of this type of communication is very high because the communication is clearer and the language is spoken without errors that occur when spoken by an untrained individual. In addition, the patient or family member may offer any response to questions or statements and be understood—as opposed to speaking to a non-Spanish-speaking provider who can speak the language, but who cannot interpret responses. However, it is not feasible to have interpreter services available at all times at all locations within all hospitals. There are

many interactions in different parts of the hospital taking place all through the day and night. The financial cost of providing around-the-clock interpreters to all non-English-speaking patients is prohibitive.

These risks to health care quality are inevitable at the present time, and we must strive to advance our ability to address these language barriers in our practice. Strategies must be focused for individual health care roles and it is also likely, although not examined here, that different health care environments (e.g., obstetrics, emergency medicine, pediatrics) may have differing translation and/or interpretation needs as well.

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