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The effects of language concordant care on patient satisfaction and clinical understanding for Hispanic pediatric surgery patients☆

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ABSTRACT

Background: Hispanics account for over 60% of the U.S. population growth and 25% speak little-to-no English. This language barrier adversely affects both access to and quality of care. Surgical specialties trail other medical fields in assessing the effects of language barriers to surgical clinical care and patient satisfaction. This study was designed to assess the effects of patient–provider language concordance on a pediatric surgery practice.
Methods: A surgery-specific, 7-point Likert scale questionnaire was designed with 14 questions modeled after validated patient satisfaction surveys from the literature. Questions concerning provider–patient language concordance, quality of understanding, and general satisfaction were included. Surveys were administered to families of patients in the General Pediatric Surgery Clinic at our institution. Families were categorized into three groups: English-speaking, regardless of race/ethnicity; Spanish-speaking using interpreter services with an English-speaking medical team; and Spanish-speaking communicating directly with a Spanish-speaking medical team (Hispanic Center for Pediatric Surgery, HCPS). One-way analysis of variance was used to test for group differences.
Results: We administered 226 surveys; 49 were removed due to lack literacy proficiency. Families in the HCPS group reported a higher level of satisfaction than the interpreter and English groups ($p < 0.01$). The HCPS group also indicated improved understanding of the information from the visit ($p < 0.001$). Spanish-speaking only families felt that communicating directly with their health care team in their primary language was more important than their English-speaking counterparts ($p < 0.001$).
Conclusions: In a pediatric surgery clinic, language concordant care improves patient satisfaction and understanding for Hispanic families in comparison to language discordant care. Other clinics in other surgery subspecialties may consider using this model to eliminate language barriers and improve patient satisfaction and understanding of surgical care.

Over the past decade, United States' population grew by 27 million people with Hispanics accounting for 55% of that growth. The US census reports that more than 60 million people speak a language other than English at home [1], with 25% of those individuals describing their ability to speak English as "not well" or "not at all" [2]. With the majority of US health care professionals accustomed to serving predominantly English-speaking individuals, delivering high quality care to the growing limited English proficient (LEP) population has become a new challenge for the medical community [3].

The language barriers Hispanics and all ethnic minorities face are well documented in the medical literature and have been found to adversely impact not only their access to medical care [4,5], but also the quality of medical care received. These inequalities result in lower patient satisfaction, longer hospital stays, and more medical errors among LEP Hispanics compared to English-speaking patients [6,7]. Even when LEP Hispanics have access to appropriate health services, they often rate the quality of care received as worse than their English-speaking counterparts [8–11]. These inequalities are well documented in the primary care setting, and are at least similar in other care settings.

Recently, patient satisfaction questionnaires have been identified as the best end point to evaluate overall quality of care [12]. These patient-reported outcomes (PROs) have been shown to simultaneously incorporate current health status and quality of life factors. Therefore, they provide an important counter-balance to the strict outcomes-related measures physicians, and especially surgeons, often use to assess the quality of care provided. Nearly all medical fields use some form of PRO with the most notable exception being surgery. In surgery, clinical outcomes continue to be the standard of quality assessment with little attention directed at patient satisfaction.

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However, what exactly surgical patients and their families want from their surgical experience remains a difficult question to answer. Do they actually prefer being cared for in a clinic where health care providers – from medical assistants to surgeons – speak their own language? Do they see any value in being cared for by a medical team that is of a similar cultural background or is trained in culturally competency? Do they enjoy the capacity to be active participants in their medical treatment plans? This study examined these questions to determine whether patient-centered, language concordant care results in higher patient satisfaction and understanding as perceived by families.

1. Methods

1.1. Study design

Our study design was a prospective study with a convenience sample obtained from the General Pediatric Surgery Clinic at the Lucile Packard Children's Hospital. All study methods and questionnaires were reviewed and approved by the Stanford University Institutional Review Board.

1.2. Sample

Patients accompanied by a parent or guardian seen in the General Pediatric Surgery Ambulatory clinic between November 2011 and July 2013 were approached following their child's clinic visit prior to any surgical procedure or hospital admittance. The parent or guardian was consented and asked to complete the short questionnaire. Patients were categorized into one of three groups, as identified by clinic staff via either telephone prior to the clinic visit or pre-clinic registration. The first group (our control group) was English-speaking families, regardless of race/ethnicity. The second group was Spanish-speaking only families using LPCH interpreting services to communicate with their medical team. The third group was also Spanish-speaking only families, but who communicated directly in Spanish with their medical team via the newly created Hispanic Clinic for Pediatric Surgery (HCPS). The HCPS is designed such that registration, intake examination, history and physical, explanation of diagnosis, management plan, surgical consent, and pre and post-operative teaching are completed in Spanish. Hispanic patients were randomly assigned to the interpreter clinic or the HCPS based on clinic schedule availability. The HCPS had one bilingual pediatric surgeon and one bilingual nurse practitioner. These two individuals saw patients in the English speaking language group with the full pediatric surgery team as well, but not in the group requiring an interpreter.

Our hospital schedulers assigned patients based on availability in our outpatient clinic templates. Their instructions were to fill the clinic spots according to the level of urgency of the referral for new patients and need for follow up for the established patients. So we had no control for the different patient assignments.

1.3. Questionnaire

Given the distinct lack of recognized surgery-specific patient satisfaction questionnaire in circulation, a new questionnaire was designed for this study (Fig. 1). Questions were modeled after several validated and successful patient satisfaction surveys from the literature (FAMCARE, ISQ, MISS, QUEST, SSS instruments). Several pediatric surgery-specific questions were incorporated, in addition to several questions directed at quality of care. The questionnaire was uploaded to Survey Monkey, again validated, and administered via iPad or computers in the patient's clinic room. Participants indicated their level of agreement with a series of 14 statements using a 7-point Likert scale from 1 (strongly disagree/very unsatisfied) to 7 (strongly agree/very satisfied). The questionnaire comprised several subscales: general satisfaction, importance of provider–patient language concordance, and quality of information transaction.

1.4. Analysis

Patient satisfaction, quality of care, and patient understanding were compared between the three patient groups receiving care at our clinic. The primary outcome measure was patient satisfaction assessed by our pediatric surgery-specific questionnaire, which was designed to measure satisfaction among patients attending a general pediatric surgery ambulatory clinic.

1.5. Statistical analysis

The means for each subscale and question per condition (English, Interpreter, and HCPS) were compared using a one-way Analysis of Variance (ANOVA). Statistical significance was set for a p-value of <0.05. Scheffé post hoc comparisons were performed if the ANOVA showed statistical significance. All analyses were performed using the IBM SPSS Statistics for Windows Version 20 (Armonk, NY: IBM Corp.).

2. Results

Surveys were administered to a total of 226 families. Fifteen percent of the patients in the English speaking families group were Hispanic. In order to insure that patients and families were literate at the level of the questionnaire, an unrelated simple question was included as a control measure. Forty-nine surveys were excluded due to incorrectly answering this control question. A comparable number of surveys from each group were excluded given incorrect responses to this question (Table 1). A total of 177 participants were included in the analysis (English 56, Interpreter 43, and HCPS 78).

One-way Analysis of Variance showed a difference in mean satisfaction scores between the groups; $F(2, 174) = 6.488$, $p < 0.01$. The HCPS group showed the highest level of satisfaction ($M = 6.91$, $S.D. = 0.30$). Post hoc Scheffe showed significantly higher satisfaction in the HCPS group compared to the interpreter and English groups, which did not differ significantly.

There was a significant difference between the overall perceived quality of information transfer during the visit; $F(2, 174) = 8.83$, $p < 0.001$. The post hoc Scheffe showed the HCPS group ($M = 6.91$, $S.D. = 0.20$) to be significantly higher than the other two groups, which did not differ. Furthermore, both Spanish speaking groups, HCPS ($M = 6.96$, $S.D. = 0.19$) and Interpreter ($M = 6.60$, $S.D. = 0.83$), rated significantly higher in the importance of provider–patient language concordance; $F(2, 174) = 12.91$, $p < 0.001$ than the English group ($M = 6.15$, $S.D. = 1.43$).

3. Discussion

The HCPS is designed such that registration, intake examination, history and physical, explanation of diagnosis, management plan, surgical consent, and pre and post-operative teaching are completed entirely in Spanish. The team includes bilingual secretaries, medical assistants, nurse practitioner, operating room scheduler, and surgeon. All communication between the patients, their families, and clinic staff from beginning to end of treatment takes place in Spanish. The goal is to provide language concordant care to eliminate the inequalities language barriers create. While these types of visits may occur informally in other clinical settings, the HCPS creates an organized model in which all staff members routinely provide language concordant care to all patients.

In recent years, the medical community's interest in eliminating or at least reducing language-based inequalities has garnered much attention. Special emphasis has been placed on implementing a patient-centered model of care where limited English proficient (LEP) patients receive health care services tailored to their individual cultural