



Contents lists available at ScienceDirect

## International Journal of Pediatric Otorhinolaryngology

journal homepage: [www.elsevier.com/locate/ijporl](http://www.elsevier.com/locate/ijporl)

## Evaluating the impact of translated written discharge instructions for patients with limited English language proficiency

Minyoung Jang<sup>b,c,\*</sup>, Michal J. Plocienniczak<sup>b</sup>, Kian Mehrazarin<sup>b</sup>, Wasif Bala<sup>b</sup>, Kevin Wong<sup>b</sup>, Jessica R. Levi<sup>a,b</sup><sup>a</sup> Boston Medical Center, 1 Boston Medical Center Pl, Boston, MA, 02118, USA<sup>b</sup> Boston University School of Medicine, 72 E Concord St, Boston, MA, 02118, USA<sup>c</sup> Medical College of Wisconsin / Children's Hospital of Wisconsin, 8915 W. Connell Ave, Milwaukee, WI, 53226, USA

## ARTICLE INFO

Presented at the American Society of Pediatric Otolaryngology Annual Meeting in Austin, TX on May 18–21, 2017.

## Keywords:

Discharge  
Satisfaction  
Comprehension  
Spanish  
Written  
Instructions

## ABSTRACT

**Introduction:** Patients with limited English language proficiency have indicated that they believe post-operative instructions written in their native language will improve comprehension over verbal translation alone, but the effect of this has not been previously studied. We hypothesize that providing written discharge instructions in Spanish for native Spanish speakers will improve comprehension regarding post-operative care after routine otolaryngologic procedures when compared to instructions written in English.

**Methods:** This prospective randomized controlled trial enrolled subjects who met criteria from June 2016 to November 2016. Subjects were Spanish-speaking parents and legal guardians of children undergoing tympanostomy tube insertion, adenoidectomy, and/or tonsillectomy. Subjects were given written discharge instructions in either English or Spanish. Both cohorts received standard verbal counseling in Spanish as well. Primary outcome was score on a standardized quiz assessing comprehension of discharge instructions. Patient satisfaction and preferences were secondary outcomes assessed through a survey. Participants underwent follow up one month after initial enrollment.

**Results:** Twenty subjects were enrolled, with ten receiving written discharge instructions in Spanish and ten receiving instructions written in English. There was no significant difference in comprehension scores between the two groups. Eleven participants completed the survey on patient satisfaction and preferences. Most subjects (91%, 10/11,  $p < 0.01$ ) preferred written instructions in their native language and subjectively felt this would improve their comprehension. However, there was no significant effect on patient satisfaction.

**Conclusions:** Spanish-speaking patients indicate a strong preference for written discharge instructions in their native language, although there was no significant difference in short-term comprehension of instructions written in English vs. Spanish on objective evaluation. Accommodating these preferences may improve long-term comprehension and patient satisfaction, and ultimately build invaluable rapport between providers and patients.

## 1. Introduction

Effective delivery of discharge instructions plays a critical role in outcomes after surgery. Prior studies have shown that by educating patients on what to expect after their procedures, written discharge instructions lead to decreased need for opioid pain medications, lower rates of readmission, and an earlier return to daily activities [1,2]. Patient comprehension also improves when instructions are provided in multiple formats, such as both verbal and written instructions [3]. Therefore, from both a patient experience and a resource utilization

standpoint, it is important that discharge instructions are provided in a manner that patients can understand, which may present a challenge for patients with limited English language proficiency. With lower levels of understanding regarding appointment scheduling as well as medication management after hospital discharge, they are often ultimately less satisfied with their care [4,5]. Compared to English-speaking patients, patients with limited English language proficiency also have a greater chance of readmission [6]. These patients have identified the need for written medical instructions in their native language as one of the most common barriers to improving health care

\* Corresponding author. Department of Otolaryngology and Communication Sciences, Medical College of Wisconsin / Children's Hospital of Wisconsin, 8915 W. Connell Ave, Milwaukee, WI, 53226, USA.

E-mail addresses: [mjang@mcw.edu](mailto:mjang@mcw.edu), [plocienn@bu.edu](mailto:plocienn@bu.edu) (M. Jang).

<https://doi.org/10.1016/j.ijporl.2018.05.031>

Received 14 February 2018; Received in revised form 13 April 2018; Accepted 24 May 2018

Available online 26 May 2018

0165-5876/ © 2018 Elsevier B.V. All rights reserved.

literacy [7]. Thus, there is a demand, particularly within hospitals in the United States, to improve delivery of discharge instructions to patients with limited English language proficiency.

Despite these identified needs, the effects of providing written discharge instructions translated into patients' native languages has not been previously studied in the otolaryngology literature. The primary aim of this study was to determine if discharge instructions written in the native language of patients with limited English language proficiency improved comprehension of hospital discharge instructions. We also sought to determine the effects of translated written discharge instructions on patient satisfaction, preferences, and adverse events and post-operative complications. We hypothesized that providing discharge instructions translated in written form into a patient's native language would lead to increased comprehension and satisfaction with patient care.

## 2. Methods

The study was approved by the Boston Medical Center Institutional Review Board. Subjects eligible for inclusion were the parents and/or legal guardians of children ( $\leq 18$  years of age) undergoing adenoidectomy, tonsillectomy, or tympanostomy tube placement, who listed Spanish as their native language, had limited English language proficiency (defined as the need for a medical interpreter), and were literate in their native language. Boston Medical Center features an interpreter service network covering 16 languages full-time. Comprising close to half of all requests, Spanish is the most commonly requested language, which influenced the decision to focus on Spanish-translated discharge instructions for this study [8]. Literacy was determined by having subjects read the consent, instructions, or comprehension quiz out loud and providing a written signature for consent. Subjects who met criteria were enrolled in the study from June 2016 to November 2016. We collected the following demographic information: age, gender, and type of procedure performed.

Subjects were randomized through a random number generator to receive discharge instructions written in Spanish or English. Subjects who received written English instructions had the instructions verbally translated by a certified medical Spanish interpreter. All subjects received standardized translated verbal counseling as well.

Primary outcome was the score received on a standardized quiz written in Spanish to assess comprehension after reviewing discharge instructions (Table 1). The quiz was administered at the parents' convenience before discharge, with time elapsed between counseling and the quiz ranging from 15 minutes to 4 hours. For instance, if parents were busy with other needs, such as attending to their child before or after procedure, we allowed the quiz to be deferred until they felt they had time available to complete it. Secondary outcomes measured were subject satisfaction, perceived impact on comprehension when written instructions were provided in Spanish vs. English, and preferred language for written instructions. Secondary outcomes were obtained from subjects through a written survey attached to the end of the quiz

**Table 1**

Sample quiz to assess comprehension of discharge instructions. Translated from Spanish.

Please determine if the following statements about care after adenoidectomy with or without tonsillectomy are true or false.	
1.	Tylenol and Motrin should be alternated and given every 3 hours around the clock.
2.	Fever up to 38C or 101 F is a sign of infection or complication from the surgery.
3.	Ear pain is a side effect that may occur, and does not necessarily indicate ear infection.
4.	It is ok if your child does not want to eat solid food, as long as they are still drinking liquids.
5.	White and black spots at the back of the throat, and bad breath are NOT signs of infection, and are part of normal healing.
6.	Bleeding from the nose alone after adenoidectomy without tonsillectomy is ok to continue to monitor if it stops within 5–10 minutes.
7.	Any bleeding after tonsillectomy requires an immediate phone call to the doctor.
8.	There may be changes in voice and swallowing up to 2 weeks after surgery.
9.	Pain levels may vary (for example, get better, then worse, then better again) and may last for up to 2 weeks.
10.	Snoring and nasal congestion may continue for up 4–6 weeks after surgery.

**Table 2**

Sample survey to assess subject preferences and satisfaction levels. Translated from Spanish.

<b>Do you prefer instructions written in Spanish, or written in English and translated verbally to Spanish?</b>
a) Prefer instructions written in Spanish
b) Doesn't matter- either is fine
c) Prefer instructions written in English, and verbally translated to Spanish
<b>How would your comprehension of post-op care change if information written in Spanish were provided?</b>
a) I would understand and remember instructions better if information is written in Spanish.
b) I would not notice a difference if information was written in English but verbally translated into Spanish.
<b>How would your satisfaction with this hospital experience change if information written in Spanish were provided?</b>
a) My satisfaction would increase.
b) No change in satisfaction
c) My satisfaction would decrease

(Table 2). The survey was prepared by the authors in English, and subsequently translated into Spanish using a certified medical Spanish interpreter employed by the hospital. Additional secondary outcomes included frequency of emergency room visits and phone calls after discharge, as well as any other incidents or complications discussed during routine follow-up clinic visit 1 month after discharge.

### 2.1. Statistical analyses

Sample size enrollment goals were established based on prior similar studies. Jenkins et al. evaluated the efficacy of verbal versus written instructions on quiz scores revealed differences that would require 99 subjects per arm to achieve an  $\alpha = 0.05$  [9]. On the other hand, Issacman et al. demonstrated more variable effect sizes depending on the questions asked. Questions assessing "improvement of knowledge" revealed more significant differences, requiring only 4 subjects per arm to achieve an  $\alpha = 0.05$  [10]. As a result, given the wide variation in effect size noted in the literature, we elected to enroll 10 subjects per study arm. While our sample size was small, it fell within range of the potential sample size needed as estimated by our literature review. Because there have not been any prior studies addressing our specific question, we were unable to definitively anticipate the effect size prior to completing this study. A two-tailed Mann-Whitney *U* test was used to evaluate differences between groups on the comprehension quiz. Chi-squared tests were performed to assess differences in categorical variables such as subjective patient preferences.

## 3. Results

Twenty-one native Spanish-speakers with limited English language proficiency were enrolled. One participant withdrew consent after enrolling and did not complete the comprehension quiz. Overall, 10 subjects received English written instructions, and 10 subjects received

Download English Version:

<https://daneshyari.com/en/article/8806176>

Download Persian Version:

<https://daneshyari.com/article/8806176>

[Daneshyari.com](https://daneshyari.com)