

An Evaluation of Emergency Department Encounters for Non-English Language Preferred Patients During the COVID-19 Pandemic for Disparities in Care

Student: John Wong-Castillo, MS4
Mentors: Riham Alwan, MD, MPH,
Juan Carlos Montoy, MD, PhD

BACKGROUND

Patients who prefer to communicate in a language other than English, Non-English Language Preferred (NELP), are vulnerable to the consequences of medical communication barriers.

This study investigates operational differences in care between NELP and English Language Preferred (ELP) patients across three categories: hospital admission rate, arrival to room, and arrival to disposition.

METHODS

1. Retrospective cohort study by review of Electronic Health Records (EHR) for patients that visited an ED at an urban Level-1 trauma center between January 2020 to December 2020.
2. English as primary language used in communicating with healthcare providers were marked as ELP. Patients who chose any other language were considered NELP: NELP categories included Spanish, Chinese (Mandarin, Cantonese, and Taishanese), and Other (every other remaining language)
3. Data was analyzed using logistic and linear regressions using STATA. Time between patient registration and their arrival to their ED room, total time spent in the emergency department before disposition, and number of patients admitted were queried along with patient age (<18, 40-64, 65-74, 75-84, 85+), language preference, and acuity level (Emergency Severity Index 1-5).

DISCUSSION

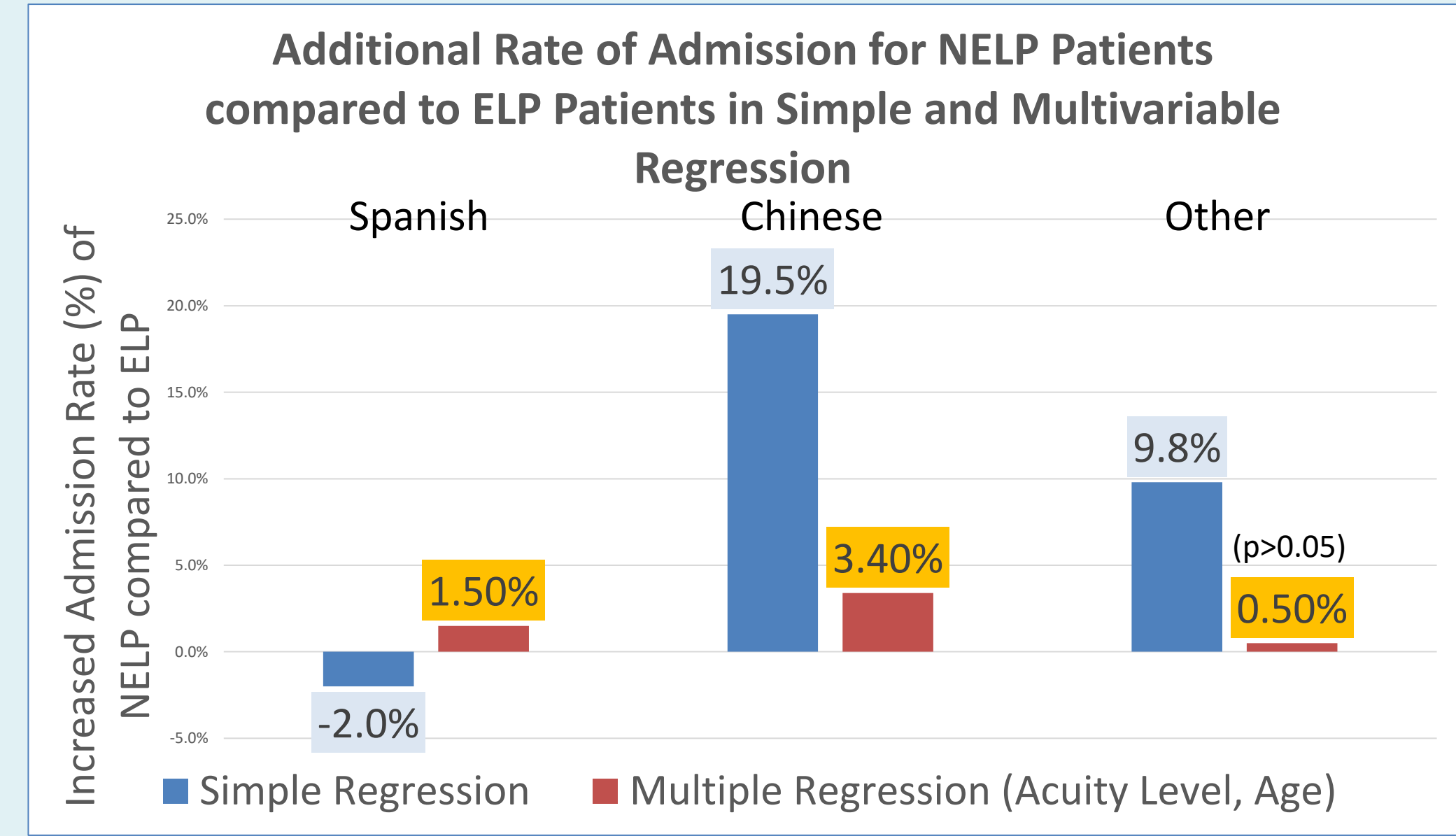
For NELP patients, providers face additional time-consuming challenges including obtaining the appropriate translator and then using them to conduct interviews and counsel their patients. Communication difficulties with NELP patients may encourage risk-averse physicians to conservatively admit the patient. The additional effort may also make providers more reluctant to see low acuity NELP patients or take longer to determine patient disposition.



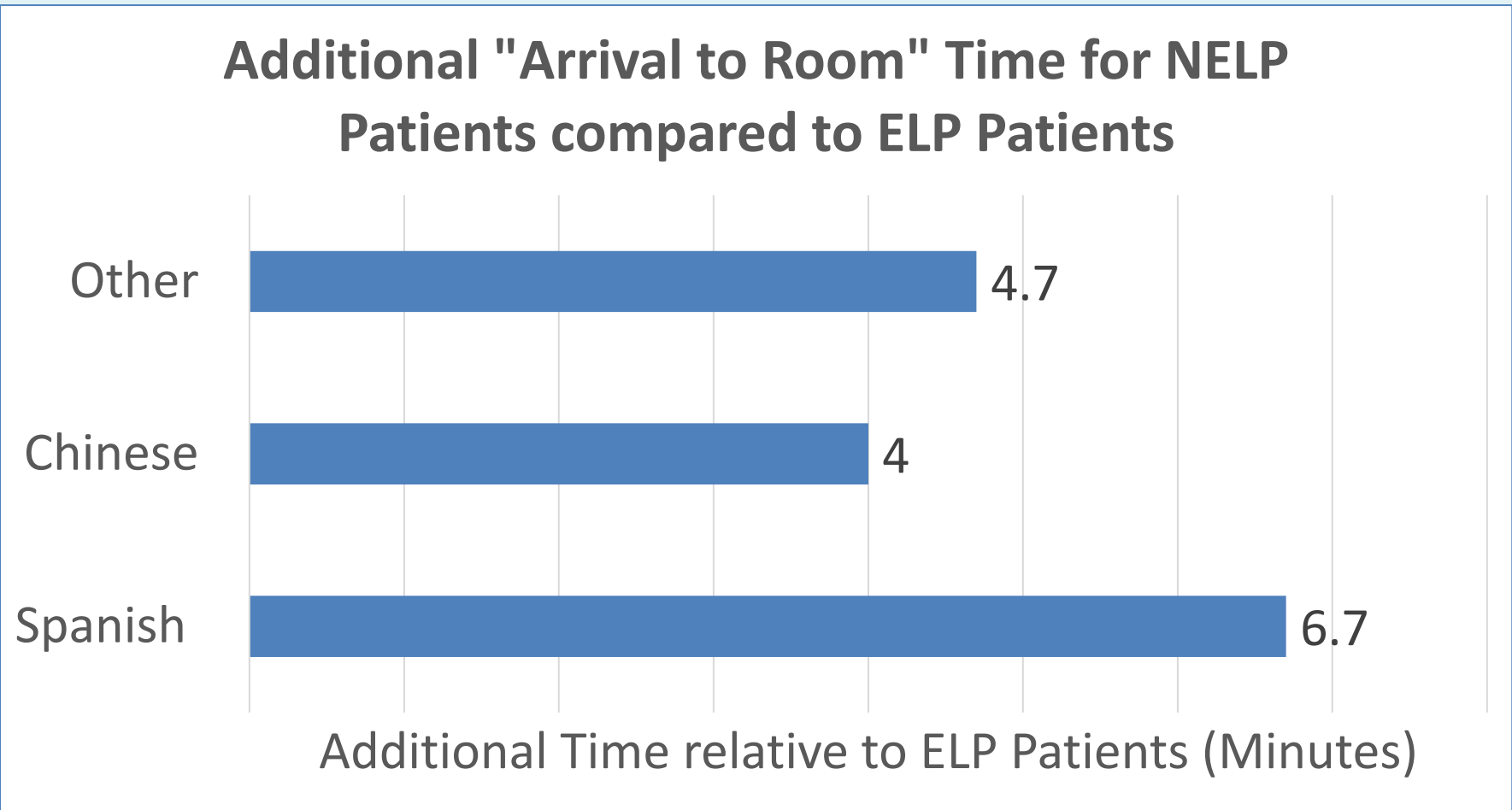
Spanish preferred patients triaged as non-urgent in the Emergency Department wait an average *44 minutes longer* compared to non-urgent English preferred patients.

RESULTS

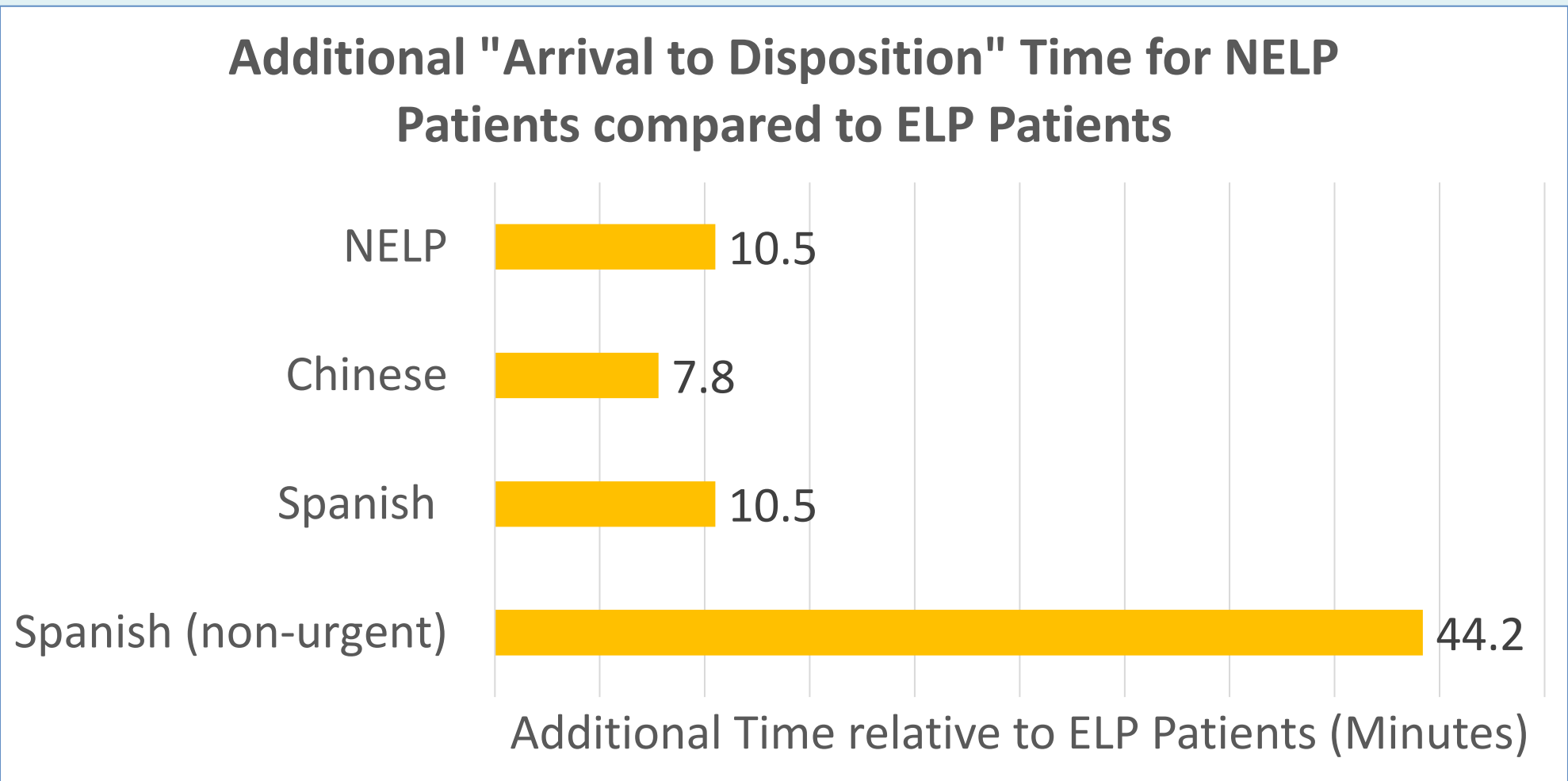
All Graphed Results Significant $p < 0.05$ unless otherwise noted



Simple Model: $(F(352729) = 183.18, p < .001, R^2 = 0.0101)$
Multivariable Model: $(F(1353719) = 876.18, p < .001, R^2 = 0.1749)$



$(F(1342122) = 137.35, p < .001, R^2 = 0.0407)$



Multivariable Model: $F(1352755) = 315.98, p < .001, R^2 = 0.0722)$
Non-Urgent (Acuity Factorial): $(F(2852740) = 148.96, p < .001, R^2 = 0.0733)$

Admissions by Language Preference		
Disposition	# of Patients	% of Total
Admitted	12,005	20.7%
Not-Admitted	46,074	79.3%
Total	58079	100%
Admitted Language Preference	% of Respective Language Population	
ELP	8,531	20%
NELP	3,474	22.60%
Spanish	2,118	18.5%
Chinese	832	39.4%
Other	524	28.89%

Language Preferences		
Language Preference	# of Patients	% of Total
ELP	42,682	73.5%
NELP	15,397	26.5%
Total	58,079	100.0%
NELP Encounters		
Spanish	11,471	74.5%
Chinese	2,112	13.7%
Other	1,814	11.8%
Total	15,397	100.0%



University of California
San Francisco