

Background

Limited English proficiency is a term used to describe a patient who is not fluent in English, often because it is not their native language.

Previous studies have examined the disparity in opioid prescriptions amongst patients of varying levels of English proficiency. However, none of the studies have examined opioid use and primary language in a community hospital system. Our hypothesis is that there may be fewer opioid prescriptions and fewer prescriptions with high abuse potential in those with limited English proficiency.

Methods

This study analyzed patients who were admitted to Jefferson Health-East Region in New Jersey between January 2021 and December 2022, and who were given opiate prescriptions. Of the total 67,831 patient visits that fit this criteria, 401 patient visits were excluded because they declined to disclose their primary language (227) or indicated other (16), unknown (155) or Indian (3) as their primary language. In the sample size of 67,430 patient visits, 1,870 patient visits were non-English speaking, and 65,560 patient visits were English speaking. Analyzed data included the patients' primary ICD-10 diagnoses, opioid prescriptions, and gender.

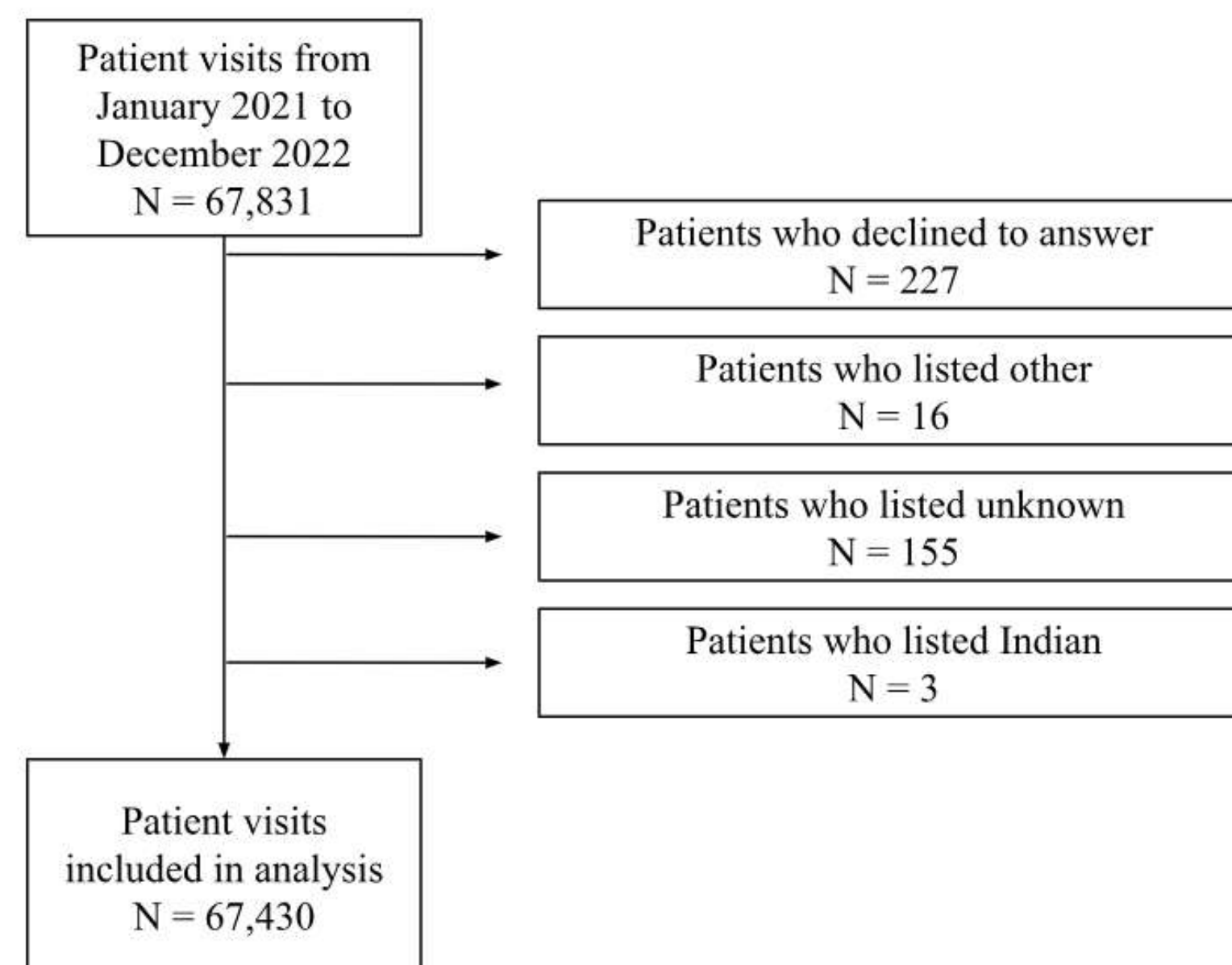


Figure 1. Inclusion and Exclusion Criteria.

Inclusion criteria included adults with visits from January 2021 to December 2022. Exclusion criteria included if the primary language was listed as “declined to answer,” “other,” “unknown” or “Indian.”

Table 1. Languages Analyzed in Study.

Languages with at least 10 logged patient visits were utilized

Language	Logged Visits
English	65,560
Spanish	1,328
Vietnamese	101
Russian	60
Arabic	58
Gujarati	36
Italian	32
Mandarin	21
Portuguese	18
Greek	16
Polish	15
Korean	15
Chinese	14
Tagalog	13
Punjabi	13
Haitian	12
Bengali	12
Turkish	11
Hindi	11

Results

There is a higher frequency of Class II High Abuse Potential opioids (N=45,411, 69.2%) in English speakers than non-English speakers (N=989, 52.9%). In addition, there is an increased incidence of tramadol 50 mg prescriptions, which are Class IV Limited Dependence opioids, among non-English speakers (N=601, 32.1%) than English speakers (N=14,721, 22.5%). The most common ICD-10 diagnosis was chronic pain syndrome. Women were more commonly prescribed tramadol 50 mg compared with men, who received oxycodone-acetaminophen 5mg-325 mg.

Language	Top ICD-10	Percentage of Visits
English N = 65,560	Chronic Pain Syndrome N = 11,047	16.85%
Non-English N = 1,871	Chronic Pain Syndrome N = 132	7.06%

Table 2
Most common ICD-10 diagnosis and percentage of visits, male and female combined. To be considered most common there must have been at least TWO ICD-10 diagnoses or opioid prescriptions.

Language	Top Opioid Prescribed	Percentage of Visits
English N = 65,560	Tramadol 50 mg N = 14,721	22.45%
Non-English N = 1,871	Tramadol 50 mg N = 601	32.12%

Table 3
Most common opioid prescription and percentage of visits, male and female combined. To be considered most common there must have been at least TWO ICD-10 diagnoses or opioid prescriptions.

DEA Class	Percentage of Visits English Speaking	Percentage of Visits Non-English Speaking
C-II High Abuse Potential	69.27%	52.86%
C-III Moderate Dependence	4.85%	10.69%
C-IV Limited Dependence	23.53%	34.26%
C-V Limited Abuse Potential	2.35%	2.19%

Table 4
DEA Class of opioid prescriptions, male and female, English speaking and non-English speaking patients combined.

DEA Class	Percentage of Visits English Speaking Females	Percentage of Visits Non-English Speaking Females
C-II High Abuse Potential	66.68%	49.64%
C-III Moderate Dependence	5.67%	11.91%
C-IV Limited Dependence	25.08%	36.2%
C-V Limited Abuse Potential	2.57%	2.24%

Table 5
DEA Class of opioid prescriptions, female only, English speaking and non-English speaking patients.

Results Continued

DEA Class	Percentage of Visits English Speaking Males	Percentage of Visits Non-English Speaking Males
C-II High Abuse Potential	73.07%	59.35%
C-III Moderate Dependence	3.64%	8.23%
C-IV Limited Dependence	21.27%	30.32%
C-V Limited Abuse Potential	2.02%	2.10%

Table 6
DEA Class of opioid prescriptions, male only, English speaking and non-English speaking patients.

Conclusions

A higher percentage of non-English speakers were prescribed Tramadol 50 mg, a class IV opioid (34.26%) than English speakers were (23.53%)

Non-English speakers were prescribed high abuse potential opiates (Class II) less frequently (52.86%) than English speakers (69.27%)

Non-English speaking females were prescribed high abuse potential opiates (Class II) less frequently (49.64%) than English speaking females (66.68%)

Non-English speaking males were prescribed high abuse potential opiates (Class II) less frequently (59.35%) than English speaking males (73.07%)

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This study received Institutional Review Board approval from Thomas Jefferson University as exempt status - iRISID-2023-1607